

# UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Vidyut Niyamak Bhawan, Near I.S.B.T., P.O.-Majra, Dehradun-248171

## Coram

Shri Subhash Kumar Chairman

Shri S.C. Sharma Member

Shri K. P. Singh Member

**Statement of Reasons for UERC (Tariff and Other Terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel based Co-generating Stations) (Fourth Amendment) Regulations, 2015.**

## Statement of Reasons

1. The Commission had issued UERC (Tariff and Other Terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel based Co-generating Stations) Regulations, 2013 (hereinafter referred to as "Principal Regulations" or "RE Regulations, 2013") vide notification dated April 15<sup>th</sup>, 2013. Thereafter, the Commission had also issued three amendments of the Regulations as discussed in the SOR issued alongwith the draft fourth amendment to these Regulations.
2. The Commission published notice seeking comments/suggestions/objection on the draft amendments to be submitted by the stakeholders by 28.08.2015. To facilitate oral submission of the stakeholders and other interested persons a hearing was also held on 03.09.2015 in the matter. List of stakeholders who submitted comments on draft notification is at Annexure-I enclosed. List of participants who attended the hearing is also at Annexure-II enclosed.
3. The comments/ suggestions/ objections received from the stakeholders in respect of increase in Solar-RPO and other related issues and the views of the Commission on the same are discussed in subsequent paragraphs.

#### **4. Comments on increase Solar RPO**

- 4.1. Uttarakhand Power Corporation Ltd. (UPCL), sole distribution licensee and also a major obligated entity in the State submitted that clause 6.4(1) of Tariff Policy (as amended) requires the appropriate Commission to fix a minimum percentage of the total

consumption of electricity in the area of a distribution licensee for purchase of energy from such sources, *taking into account availability of such resources in the region and its impact on retail tariffs*. UPCL submitted that the clause 6.4 (i) reads as: “**Within the percentage so made applicable** the SERCs shall also reserve percentage for purchase of solar energy ranging from 0.25% by the end of 2012-13 and further upto 3% by 2021-22”. UPCL submitted that the tariff policy has not yet been further amended and the target of Solar RPO for 2022 is still 3%. The Licensee further submitted that consumption of UPCL is also increasing at around 4% to 5% per year, which itself will increase the RPO of the Discom in energy terms, as the same is dependent upon the consumption of the distribution licensee.

UPCL submitted that cost of solar power plant is expected to be reduced more in near future, hence, increase in the Solar RPO percentage in the later years will give cost benefit to Discom and consumer of the State. UPCL submitted that it may take time for implementation of policies/schemes of the Central as well as State Govt. Moreover, the government policy for the upcoming solar projects permit the generators to self consume or to generate through third party model or even to take the power out of State or to sell some other non-consumer of Discom, hence, there is also a possibility that from the actual generation only certain amount is made available to Discom to meet its RPO. UPCL requested the Commission that while amending the Regulation, it should be ensured that the increase in Solar RPO obligation may not reflect adversely on the tariff.

UPCL also submitted that they are already in cumulative deficit of approx. 550 MU of Non Solar RPO upto 2014-15 and despite various efforts, it has not been able to procure the same. In the current scenario the RE power is not readily available in the open market at reasonable rates therefore the obligation is to be fulfilled by purchasing the RE Certificate thereby loading the UPCL with extra financial implication without actually receiving the power for the said price. UPCL further submitted that the RPO of the non-solar sources was fixed keeping in mind the fact that certain generating stations would come up with in time but it has not happened, therefore, UPCL requested that considering the fact that the non solar power is not available, the RPO of the non solar be reduced.

4.2. Sh. L.N. Nimawat, Ret. Chief Engineer, RRVPN, Jaipur while objecting to the proposed

increase in Solar-RPO submitted that more than 50% capacities of Thermal Power Plants are idle either due to operating at part capacity or not operating at all. Sh. Nimawat submitted that it is essential to use these resources fully and efficiently. He submitted that the renewable energy costs are in the range of Rs. 7/- per unit or so, therefore, industries can meet its power requirement at a lesser costs by opting for conventional source of power. He added that there are many obligated entities, which already had made the full arrangement of meeting their power requirements either from the captive power plants within the State or outside. Therefore, the Commission needs to come out with a measure for effective utilization of such captive power plants. Sh. Nimawat submitted that RE based generation are fluctuating in characteristic which leads to corresponding fluctuations in thermal generating station. And such regular variation in its operating parameters on a daily basis is not healthy as it may cause frequent break down and also damages to the thermal power plants. Sh. Nimawat submitted that solar and wind technology will enhance going forward and to predict round the clock supply, the same can then be considered for its promotion as a mandatory source for the industry. Sh. Nimawat submitted that clause 5.2.20 of the National Electricity Policy intends for exploration of non-conventional energy resources, mainly small hydro, wind and bio-mass.

4.3. M/s Shree Grinding Unit, Lakshar submitted that differentiation between renewable generation sources should be avoided and obligation of solar should be clubbed with other form of renewable energy sources. M/s Kashi Vishwanath Steels Pvt. Ltd. submitted that with the increase in Solar-RPO cost of per unit RPO shall increase from 15 paise to 19.12 paise for FY 2016-17 and from 17.18 paise to 25.70 paise for FY 2017-18. Both the stakeholders requested the Commission not to increase the solar RPO.

## 5. **Commission's View and Decision**

5.1. UPCL has in its comments prima-facie expressed apprehension about its failure to achieve revised Solar-RPO specified in the draft amendment regulations and as a consequence of incurring avoidable cost by way of purchase of RECs for the unmet RPO balance in accordance with the regulations. UPCL also expressed concern about development and targeted capacity addition of solar based plants and availability of power from such plants that would be available for its use for compliance of the RPO. In this regard, the Commission while appreciating submissions of the licensee would like

to clarify that shortfall in Solar-RPO may be on account of inadequate development of such power plant in the State, however, duties & responsibilities fixed in accordance with Act, policies and regulations cannot be escaped by anyone including licensee and the Commission as well.

With respect to the submission made by UPCL that the tariff policy has not been amended and the target of Solar RPO for 2022 is still 3%, as already mentioned in SOR of draft notification it may be noted that Sub-clause 6.4(i) of Tariff Policy requires that:

*“(i) Within the percentage so made applicable, to start with, the SERCs shall also reserve a minimum percentage for purchase of solar energy from the date of notification in the Official Gazette which will go up to 0.25% by the end of 2012-2013 and further up to 3% by 2022.”*

The Commission noted that MNRE, GOI vide letter no. 30/80/2014-15/NSM dated 01.07.2015 conveyed its resolution in the matter of “Scaling up of Grid Connected Solar Power Projects from 20,000 MW by the year 2021-2022 to 1,00,000 MW by the year 2021-2022 under National Solar Mission.”

Further, MNRE vide letter no. 30/58/2014-15/NSM dated 10.07.2015 while referring to the enhanced target of 1,00,000 MW solar plant capacity to be achieved by 2022 informed that the Ministry is working on comprehensive action plan for achieving the said target. MNRE vide said letter stated that the SERCs are required to set Solar RPO of 1% for the current financial year, 8% by 2019 and 10.50% by 2022. MNRE has also desired that the State Commissions shall review their Regulations considering the enhanced target and suitably revise the Solar RPO trajectory upto 2022. MNRE has also a given tentative breakup of solar capacity in MW to be added in Uttarakhand as follows:

FY 2015-16		FY 2018-19		FY 2021-22	
Solar RPO	Solar Capacity Required	Solar RPO	Solar Capacity Required	Solar RPO	Solar Capacity Required
1%	74 MW	8%	642 MW	10.50%	876 MW

In view of the above, it is apparent that policy makers at higher level have envisaged addition of solar plant capacity to the tune of 1,00,000 MW by 2022 although Solar-RPO has not been revised as specified in Tariff Policy. The Commission is aware of the fact that Solar-RPO stipulation in the State of Uttarakhand is comparatively lower than as specified in Tariff Policy and also lesser than Solar-RPO of other States.

The Commission under the Act & Policy is mandated not only to promote Solar Power Generation but consumption of the same at certain proportions of total consumption by the obligated entities. At this opportune time, when policy maker at Central & State governments level are facilitating setting up of such power plants, the Commission also decided to reassess the stipulation of provisions of regulations so as encourage project developers for installation of projects and also to ensure benefits of policies/ schemes passed on to such project developers.

In this regard, UREDA had submitted the status of proposed solar PV plant development in the State of Uttarakhand. Total project capacity commissioned till date is 6.612 MW. Further, projects having aggregate capacity of 35.388 MW are likely to get commissioned by the end of 31.03.2016 and projects having aggregate capacity of 215 MW are likely to get commissioned by 30.11.2016. Thus, as per estimate submitted by UREDA 217.875 MU would be available in FY 2016-17 to UPCL against the estimated RPO requirement of 213.58 MU for FY 2016-17. Further, 516 MUs is expected to be available to UPCL during FY 2017-18.

Thus, going by projections submitted by UREDA, it is expected that UPCL would be able to meet the RPO requirement as specified in the draft Regulations from power generators of the State. However, for the same UREDA and UPCL both will have to gear up so as to ensure timely implementation of the projects and to remove all the bottlenecks likely to impact the commissioning of the projects. Proper care and concerted planning is required to ensure that commissioning of the projects is not held up due to evacuation facilities not being available in time. For the same UREDA has to work in tandem with the distribution and the transmission licensee to remove the evacuation constraints. UREDA as the nodal agency is tasked with monitoring the progress of both setting up of plants as also of infrastructure needed for evacuation of power and to report the status to Commission every quarter.

However, as far as UPCL's submissions to revise the RPO of non-solar technology is concerned, the Commission observes that the same has basis as the development of non-solar power generation in the State has not taken place as was envisaged as a result of which UPCL is not able to meet its RPO requirement for non-solar sources from generators within the State and there is a substantial gap in the unmet RPO. Moreover, in the near future no substantial development in the non-solar

sources is foreseen as a result of which the gap in unmet RPO of non-solar sources is bound to increase with the increase in RPO and also the increase in demand of UPCL. Commission therefore decides to change the RPO of non-solar sources for FY 2016-17 and FY 2017-18 and keep it at the same level as that specified for FY 2015-16, i.e. at 8%.

5.2. With respect to the submission made by Sh. L.N. Nimawat, Ret. Chief Engineer, RRVPN, Jaipur on the proposal of increase in Solar-RPO on the basis of higher cost of generation to the tune of Rs. 7.00 per unit and also operating difficulties of 50% idle Thermal Generating Stations, it is not to be ignored that at present the State is drawing power from all the firm sources available to it, yet is having a power shortage to the tune of about 200-300 MW. Power is available on short term basis outside the State but the licensee is unable to get the same due to transmission constraints in various corridors. Hence, the contention of Sh. Nimawat does not have any substance as far as the State of Uttarakhand is concerned. Moreover, with the reduction in cost of solar plants with the reduction in the cost of technologies due to economies of scale, the tariffs are bound to go down. Further, as per the Regulations all the obligated entities are required to ensure compliances of the RPO specified by the Commission by purchase of requisite quantum of RE power to meet their overall requirement of power/demand. However, if requisite energy from solar or non-solar renewable sources are not utilised for their consumption, then for ensuring compliance of RPO, such obligated entities would be required to purchase equivalent REC to meet such shortfall. Further, the Act and the policies issued by Central Government requires the Commission to promote the renewable sources of energy and specifying RPOs is a means to ensure such promotion. In this regard, it may also be noted that as the cost of other non-solar renewable power is going up, the cost of solar sources is reducing. Hence, the submission of Shri Nimawat is not being considered.

5.3. With respect to the submission made by M/s Shree Grinding Unit, Lakshar that the differentiation between renewable generation sources should be avoided and obligation of solar should be clubbed with other form of renewable energy sources, it is to be kept in mind that the differentiation has been made in the Tariff Policy and the Commission is merely ensuring compliance of the same. With regards to the submission of M/s Kashi Vishwanath Steels Pvt. Ltd. that with the increase in Solar-RPO cost of per unit RPO shall increase from 15 paise to 19.12 paise for FY 2016-17 and from 17.18 paise to 25.70 paise for FY 2017-18, it is not disputed that the increase in RPO will have cost

implications not only for the discom but also for other obligated entities. However, as per the requirement of the Tariff Policy to meet the RPO of 3% from solar sources by the end of FY 2022, all the obligated entities will have to bear the financial implications of the same. However, one way of reducing the cost implication by the industries either availing open access or using captive power is either by way of purchasing power from the solar sources or by setting up a solar power plant in their own premises.

5.4. Hence, based on the above discussions, the Commission does not propose to modify the solar RPO as specified in the draft Amendment Regulations and retains the same for FY 2017-18 and FY 2018-19. However, the non-solar RPO for FY 2016-17 as well as FY 2017-18 have been retained at 8%.

5.5. Accordingly, sub-regulation 9(1) of the Principal Regulations shall be read as:

*“ (1) In line with the provisions of the Act, National Electricity Policy and the Tariff Policy, to promote development of renewable and non-conventional sources of energy, all existing and future distribution licensees, captive (excluding co-generation based captive) users and open access customers, hereinafter referred to as “Obligated Entity”, in the State shall be obliged to procure minimum percentage of their total electricity requirement for own consumption, as indicated in table given below, from eligible renewable energy sources as defined under Regulation 4. The same shall be called the Renewable Purchase Obligation (RPO) of the Obligated Entities.*

Year	Renewable Purchase Obligation - Non-Solar		Renewable Purchase Obligation - Solar	
	Existing	Proposed	Existing	Proposed
2013-14	6.00%	6.00%	0.050%	0.050%
2014-15	7.00%	7.00%	0.075%	0.075%
2015-16	8.00%	8.00%	0.100%	0.100%
2016-17	9.00%	8.00%	0.300%	1.50%
2017-18	11.00%	8.00%	0.500%	2.50%

*“Percentage RPO” as specified above denotes Minimum Quantum of purchase from non-fossil fuel based co-generation and generation of electricity from renewable energy sources” as a percentage of total energy purchased from all sources/generated by the Obligated Entity during the year for own consumption.*

*Provided that if energy from renewable and non-conventional sources of energy becomes available in the State, over and above the specified RPO, the generator or the distribution company of the State can approach the Commission for permitting procurement of such energy in excess of specified RPO.”*

By the order of the Commission

(Neeraj Sati)  
Secretary

**List of Stakeholders**

<b>Sr. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Organisation</b>	<b>Address</b>
1.	Sh. J.B. Agarwal	Director	M/s Kashi Vishwanath Steels Pvt. Ltd.	Narain Nagar Industrial Estate, Bazpur Road, Kashipur, Udham Singh Nagar
2.	Sh. L.N. Nimawat	Retd. C E (PPM)	Rajasthan Rajya Vidyut Prasaran Nigam	B-59, Triveni Nagar, Jaipur-302018
3.	-	-	M/s Shree Grinding Unit Lakshar	Village-Akbarpur-Oud, Tehsil-Lakshar-247663, Distt. Haridwar
4.	Sh. M.A. Khan	Director (F)	Uttarakhand Power Corporation Ltd.	Victoria Cross Vijeta Gabar Singh Bhawan, Kanwali Road, Dehradun.



**List of Participants**

<b>Sr. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Organisation</b>	<b>Address</b>
1.	Sh. M.A. Khan	Director (F)	Uttarakhand Power Corporation Ltd.	Victoria Cross Vijeta Gabar Singh Bhawan, Kanwali Road, Dehradun.
2.	Sh. Pravesh Kumar	Executive Engineer (Comml.)	Uttarakhand Power Corporation Ltd.	Victoria Cross Vijeta Gabar Singh Bhawan, Kanwali Road, Dehradun.
3.	Sh. Muneer Alam	Executive Engineer (Comml.)	Uttarakhand Power Corporation Ltd.	Victoria Cross Vijeta Gabar Singh Bhawan, Kanwali Road, Dehradun.
4.	Sh. Gaurvav Sharma	Executive Engineer (RM)	Uttarakhand Power Corporation Ltd.	Victoria Cross Vijeta Gabar Singh Bhawan, Kanwali Road, Dehradun.
5.	Sh. Anurag Sharma	Advocate	Uttarakhand Power Corporation Ltd.	Victoria Cross Vijeta Gabar Singh Bhawan, Kanwali Road, Dehradun.
6.	Sh. A.K. Tyagi	Chief Project Officer	Uttarakhand Renewable Energy Development Agency	Urja Park Campus, Industrial Area, Patel Nagar, Dehradun
7.	Sh. Vineet Mall	Project Officer	Uttarakhand Renewable Energy Development Agency	Urja Park Campus, Industrial Area, Patel Nagar, Dehradun