

Before the Himachal Pradesh Electricity Regulatory Commission, Shimla

Petition No.: 41 of 2022

Heard on : 17.11.2022

(Decided on: 28.11.2022)

**CORAM: Hon'ble Sh. Devendra Kumar Sharma, Chairman
Hon'ble Sh. Yashwant Singh Chogal, Member(Law)
Hon'ble Sh. Shashi Kant Joshi, Member.**

In the matter of:-

Authentication of Renewable Energy Purchase (Non-Solar & Solar) for FY 2021-22 under the provisions of Regulation 4(1) of the HPERC (Renewable Power Purchase Obligation and its Compliance) Regulations, 2010 and eligibility of REC to Distribution Licensee for RE Purchased beyond RPPO.

AND

The Himachal Pradesh State Electricity Board Limited
Vidyut Bhawan, Shimla-171004 (HP).

..... **Petitioner**

Versus

1. The Director,
Directorate of Energy,
Shanti Bhawan, Phase-III, New Shimla-09 (HP).
2. The Chief Engineer,
State Load Dispatch Centre,
Shimla-11
3. The Chief Executive Officer,
HIMURJA, SDA Complex, Kasumpti, Shimla-09

.....**Respondents**

Counsels/Representatives:-

For Petitioner:

Sh. Kamlesh Saklani
(Authorized Representative)

For Respondents:

Sh. Shanti Swaroop (Legal Consultant)

Respondent No.-1

Sh. Surinder Saklani(Advocate)

Respondent No.-2

Ms. Kamlesh Shandil (Advocate)

Respondent No.-3

ORDER

This Petition has been filed by the Himachal Pradesh State Electricity Board Limited, a Distribution Licensee (hereinafter referred as “the HPSEBL”), an Obligated Entity under the HPERC (Renewable Power Purchase Obligation and

its Compliance) Regulations, 2010 (hereinafter referred as “**the RPPO Regulations, 2010**”) seeking authentication of Renewable Energy Purchase (Non-Solar and Solar) for FY 2021-22.

2. According to the Petitioner, Regulation 4(1) of the RPPO Regulations, 2010 provides as under:-

The Distribution Licensee/Obligated Entity shall during each financial year, purchase such quantum of electricity (in kWh) from renewable energy sources as is not less than the quantum of electricity (in kWh), worked out as per the Table below:-

Year	Minimum Quantum of purchase in percentage from renewable sources (*in terms of energy in kWh) of total consumption excluding consumption met from hydro sources.				
	Solar RPO	Non- Solar RPO			Total RPO
		HPO	Other Non-Solar RPO	Total Non-Solar RPO	
2021-22	10.50%	0.18%	10.50%	10.68%	21.18%
2022-23	As specified by the Commission	0.35%	As specified by the Commission	As specified by the Commission	As specified by the Commission
2023-24		0.66%			
2024-25		1.08%			
2025-26		1.48%			
2026-27		1.80%			
2027-28		2.15%			
2028-29		2.51%			
2029-30		2.82%			
(a) The RPPO will be on total consumption of electricity by an obligated entity, excluding consumption met from hydro-electric sources of power. (b) Hydro Power Purchase Obligation (HPO) shall be met from the power procured from large hydro power projects including pump storage projects having capacity more than 25 MW (LHP) commissioned on and after 08.03.2019 and upto 31.03.2030 in respect of 70% of the total generated capacity for a period of 12 years from the date of commissioning. Free power to be provided as per the agreement with the State government and that provided for local Development Fund (LADF) shall not be included within the limit of 70% of the total generated capacity. (c) HPO liability of the State/DISCOM could be met out of the free power being provided to the State from LHPs commissioned after 08.03.2019 as per agreement excluding the contribution towards Local Area Development Fund if consumed within the State. Free power (not that contributed for Local area development) only to the extent of HPO liability of the State/ DISCOM shall be eligible for HPO benefit. In case the free power is insufficient to meet the HPO obligations, then additional hydro power to meet HPO obligations. (d) Hydro Power imported from outside India shall not be considered for meeting HPO; (e) In case the achievement of Solar RPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Non-Solar energy purchased beyond specified Non-Solar RPO for that particular year. (f) In case on achievement of other Non-Solar RPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Solar or eligible hydro energy purchased beyond specified Solar RPO or HPO for that particular year. (g) Further, in case on achievement of HPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Solar or other Non-Solar energy purchased beyond specified Solar or Non Solar RPO for that particular year.					

3. Accordingly, the HPSEBL has purchased power from renewable sources (non-solar & solar) in order to meet its obligation of 10.50% from Non-solar and

10.50% from Solar and 0.18% from Hydro Purchase Obligations (HPO) for the financial year FY 2021-22. The details of net shortfall/surplus of the HPSEBL in respect of Hydro Purchase Obligations (HPO) during FY 2021-22 are as below:

Table-1: RE (HPO) Power Purchase for FY 2021-22		
Sr. No.	Description	Quantum (in MUs)
1	Financial Year	2021-22
2	a) HP's consumption within the State (including Hydro)	11613.64
	b) % age of Hydel share in total requirement as per 2 nd APR of 4 th MYT for Control Period (FY 20 TO FY 24)	76.76%
	c) Requirement met from hydro sources as worked out on % age mentioned in item (b) of Sr. No. 2.	8914.30
	d) Actual Requirement met from hydro sources during FY 22	8397.30
	e) Requirement met from hydro sources for working out RPPO (Minimum of (c)&(d) above)	8397.30
	f) Total consumption of HPSEBL excluding consumption met from hydro sources (a-e)	3216.34
3	Hydro Power Purchase Obligations	0.18%
4	Hydro Purchase Obligations (in MUs)	5.79
5	Energy Purchased from GoHP against its entitlement of free power in Sawra Kuddu HEP to meet HPO of HPSEBL	5.697
6	Net shortfall(-)/surplus (+) in meeting HPO for FY 2021-22 (5-4)	(-) 0.093

4. As per the Petitioner, the total Hydro Purchase Obligation (HPO) was 5.79MUs against which HPSEBL had met 5.697 MUs with energy purchased from Government of Himachal Pradesh (GoHP for short) against its entitlement of free power of Sawra Kuddu HEP in the State. Thus, HPSEBL has a deficit of **0.093 MUs** in meeting its HPO for FY 2021-22.
5. It is averred that the item (g) of Table appearing at Sub-regulation (1) of Regulation 4 of the RPPO Regulations, 2010 read with its subsequent amendments provides that:

“(g) Further, in case on achievement of HPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Solar or other Non-Solar energy purchased beyond specified Solar or Non Solar RPO for that particular year.”

Since, the HPSEBL has procured 5.697 MUs (i.e. 98 % of HPO of FY 2021-22) from eligible hydro projects against the HPO of 5.79 MUs and satisfies the condition of achievement of HPO to the extent of 85% and above, the HPSEBL

has requested to consider the adjustment of shortfall of 0.093 MUs for meeting its HPO for FY 2021-22 with excess energy procured by HPSEBL beyond Non-solar (other) RPO specified by the Commission.

6. The details of net shortfall/surplus of the HPSEBL in respect of Non-solar RE obligations during FY 2021-22 are as below:

RE (Non-Solar) Purchase for FY 2021-22

Sr. No.	Description	Quantum (MUs)
1	Financial Year	2021-22
2	a) HPSEBL consumption within the State (including Hydro)	11613.64
	b) % age of hydel share in total requirement as per 2 nd APR of 4 th MYT for Control Period (FY 20 to FY 24)	76.76%
	c) Requirement met from hydro sources as worked out on % age mentioned in item (b) of Sr. No. 2	8914.30
	d) Actual Requirement met from hydro sources during FY 21-22	8397.30
	e) Requirement met from hydro sources for working out RPPO (Minimum of (c) &(d) above)	8397.30
	f) Total consumption of HPSEBL excluding consumption met from hydro sources (a-e)	3216.34
3	Non-Solar Renewable Power Purchase Obligations	10.50%
4	Non-Solar Renewable Power Purchase Obligations (in MUs)	337.72
5	Detail of Purchase of non-solar RE Power by HPSEBL including own generation	
	a. HPSEBL's own generation from 25 MW & below projects (excluding free power)	399.89
	b. Power Purchased (Net saleable energy) from IPP owned SHPs of 25 MW & below capacity (excluding projects under REC)	1711.74
	c. Free power entitlement of GoHP in HPSEBL's SHPs of 25 MW & below capacity	33.49
	d. Free power entitlement of GoHP in IPP owned SHPs of upto 25 MW capacity purchased by HPSEBL	161.67
	Total Non-Solar RE purchased	2306.79
6	Non-solar RE sold outside its area of supply as Renewable Energy	1449.16
7	Total Non –solar RE purchased for supply and utilized to meet own RPPO (5-6)	857.63
8	Net shortfall (-) /surplus (+) in meeting Non Solar RE Obligation for FY 2021-22 (7-4)	(+) 519.92
9	HPO Shortfall in FY 2021-22	0.093
10	Balance surplus in meeting other Non-Solar RPO after adjusting HPO shortfall	(+) 519.827

7. As per the Petitioner, the surplus Non-solar RE for FY 2021-22 i.e. 519.827 MUs may be considered for the issuance of Non-solar RE Certificates for FY 2021-22 and have recommended their case for such issuance on the format devised by the Central Agency.

8. According to the Petitioner, the net shortfall/surplus in respect of Solar RE obligations during FY 2021-22 are as below:

RE (Solar) Purchase for FY 2021-22		
Sr. No.	Description	Quantum (MUs)
1	Financial Year	2021-22
2	a) HPSEBL consumption within the State (including Hydro)	11613.64
	b) % age of hydel share in total requirement as per 4 th MYT for Control Period (FY 20 to FY 24)	76.76%
	c) Requirement met from hydro sources as worked out on % age mentioned in item (b) of Sr. No. 2	8914.30
	d) Actual Requirement met from hydro sources during FY 20-21	8397.30
	e) Requirement met from hydro sources for working out RPPO (Minimum if (c) &(d) above)	8397.30
	f) Total consumption of HPSEBL excluding consumption met from hydro sources (a-e)	3216.34
3	Solar Renewable Power Purchase Obligations	10.50%
4	Solar Renewable Power Purchase Obligations (in MUs)	337.72
5	Detail of Purchase of Solar Power by HPSEBL	
	a. Purchased from SECI Solar Power Project (M/s ACME Rajdhani Power Pvt. Ltd.)	40.55
	b. Purchased from NTPC (Singrauli Solar Power Project)	20.20
	c. IPP Owned Solar Plants in HP through Long Term PPAs	41.23
	d. HPPCL owned Berra Dol Solar PV Project through Long Term PPA	8.03
	e. Solar Rooftop in the State	29.71
	f. BBMB Rooftop (HPSEBL share)	0.00
	g. Dedicated Solar Purchase from PTC	127.29
	h. Solar Purchase through IEX	35.86
	Total Solar RE purchased	302.88
6	Solar RE sold outside its area of supply as RE Power	0.00
7	Net shortfall to meet solar RPPO in preceding Years as per the Commission's order dated 02.12.2021	146.19
8	Balance available solar Power against Solar RPPO of FY 2021-22	156.69
9	Net shortfall (-)/surplus (+) in meeting own Solar RE Power Purchase Obligation for FY 2021-22 (8-4)	(-)181.03

9. It is averred that the HPSEBL has a deficit of 181.03 MUs in meeting its solar RPPO during FY 2021-22. According to the petitioner, the main reasons for non-compliance of the RPO are detailed below:

- (i) HIMURJA (Respondent No. 3) had allotted a 'Scheme for Harnessing 28 MW of Solar Power through Projects Ranging from 250 kWp to 500 kWp' for the aggregate capacity of 28.25 MW and 62 Nos. of IPP had registered under this Scheme. Further, HPSEBL had signed 34 Nos. of Power Purchase

Agreements with IPPs having aggregate capacity of 15.05MW under this Scheme. All these projects were scheduled to be commissioned during FY 2021-22. However, only 23 Nos. of projects having aggregate capacity of 10.10MW have been commissioned till date under above Scheme. Out of these 34 Nos. IPPs, 11 Nos. of projects having aggregate capacity of 4.95 MW have not yet been commissioned.

- (ii) Further, HPSEBL signed 4 Nos. of Power Purchase Agreements with IPPs having aggregate capacity of 2 MW under the 'Scheme for Harnessing 20 MW of Solar Power through Projects Ranging from 250 kWp to 500 kWp'. All these projects were scheduled to be commissioned during FY 2021-22. However, only 3 Nos. of projects having aggregate capacity of 1.50MW have been commissioned till date under this Scheme.
- (iii) The tie up power was assumed and calculated by HPSEBL by considering and excluding Hydro consumption of 2,000 MUs, but during FY 2021-22, the actual consumption excluding hydro was approximately 3,216.34 MUs due to unprecedented events, which is around 160% more than last financial year. Consequently, the RPPO targets increased by huge margin.
- (iv) The increase in RPO Obligation, excluding hydro consumption, was due to the sudden rise in power demand in winter season which was accordingly met from thermal power (brown power).

- 10. In view of foregoing, HPSEBL has prayed that they may be allowed to carry forward the deficit power purchase from Solar power projects for FY 2021-22 i.e. 181.03 MUs in the ensuing years and that to recommend the case for issuance of Non-Solar RECs for 519.827 MUs of Non-Solar surplus energy, after adjustment of shortfall of 0.093 MUs in HPO for FY 2021-22, procured beyond the RPO for FY 2021-22, on the format devised by the Central Agency.
- 11. During the Course of hearing, the Commission asked the HPSEBL to furnish details of RE Power purchased from the IPP owned SHPs and from HPSEBL's own SHPs of 25 MW and below capacity at different tariffs separately, in the

tabulated form. The HPSEBL has furnished the tabulated detail vide MA No. 166 of 2022.

12. The Commission, taking note of the fact that the State Agency i.e. the Directorate of Energy (State Agency), the Himachal Pradesh State Load Dispatch Centre (HPSLDC) and Himachal Pradesh Energy Development Agency (HIMURJA) were necessary parties for adjudicating the controversy in the Petition, ordered to implead the State Agency, HIMURJA and HPSLDC as necessary parties being Respondents No. 1 to 3 and directed them to file their objections/suggestions or viewpoints in the Petition.

13. In reply, the Respondent No. 1, the Directorate of Energy has submitted vide MA No. 162 of 2022 as under:-

- (i) The Petitioner i.e. Himachal Pradesh State Electricity Board Limited was accredited under REC Mechanism, as Distribution Licensee, vide Certificate of Accreditation bearing No. AP0DCHHPSEBL.TDA050416 dated 05.04.2016 which was valid upto 04.04.21. The applicant has applied for re-accreditation online on 03.04.2021 and physically on 08.04.2021 for the period beyond 04.04.2021. However, the applicant was to file application, at least three months in advance prior to expiry of existing accreditation, which has not been done by applicant in the instant case. Due to Non-Compliance status of applicant in the previous years i.e. FY 2016-2017, FY 2017-18, FY 2018-19 & FY 2020-21 in RPO, as per trajectory notified by the HPERC for the respective years, application for re-accreditation was not considered by State Agency. The same was conveyed vide letter no. DOE/SA-REC/Vol-XII/2020-21-8340-41 dated 18.01.2022. The application could not be disposed off in 30 days, because applicant could not provide requisite information well in time. Thereafter, the applicant i.e. HPSEBL, till date has not applied on prescribed format for fresh accreditation.
- (ii) That to allow carry forward of the deficit for Solar RPPO portion for FY 2021-22, for which there is shortfall of 181.03 MU, it is submitted that during this period Solar RECs/Solar Power were available in the Power

Exchange/Open Market. Accordingly, this fact may be considered, while deciding the petition.

(iii) That the shortfall of the HPO compliance is adjustable from excess Non Solar Energy as per the Regulations/provisions.

14. The Respondents No. 2, Himachal Pradesh State Load Dispatch Centre, has submitted the reply vide MA No. 163 of 2022 that the Commission may pass an appropriate order in the interest of justice and has not filed any specific comments in the matter.

15. The Respondents No. 3, Himachal Pradesh Energy Development Agency (HIMURJA) has also not filed any reply in the matter.

16. We have heard the Ld. Counsel/representatives for the Parties and have perused the entire record carefully.

17. One of the functions of the State Electricity Regulatory Commission is to promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures. Section 86(1)(e) of the Electricity Act, 2003 is reproduced as under:-

“promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify for the purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a Distribution Licensee”.

18. The Commission has framed the RPPO Regulations, 2010, specifying the minimum percentage of the total consumption, for Renewable Power Purchase Obligation (RPPO) for Non-solar and Solar energy for the Distribution Licensee, as well as the Captive and Open Access Users/Consumers, with a provision that the certificates issued under the Central Electricity Regulatory Commission (Terms and Conditions for Recognition and Issuance of Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2010 (**“the CERC REC Regulations, 2010”**) shall be the valid instruments for the discharge of the mandatory obligation set out in these Regulations for the Obligated Entities to purchase electricity from renewable energy sources during each financial year as specified by the Commission.

19. The Commission on 19th June, 2010 has designated the “Directorate of Energy”, which is an authority created under the administrative control of the Government of Himachal Pradesh, as the State Agency for the purposes of the RPPO Regulations and the State Agency has to undertake functions under RPPO Regulations. The Regulation 4 of the RPPO Regulations, 2010 provides that the Captive and Open Access Consumer(s)/User(s) and the Petitioner shall purchase renewable energy as stated in the table provided thereunder. If the Captive User(s) and Open Access Consumer(s) are unable to fulfil the criteria or if the Distribution Licensee fails to fulfil the minimum quantum of purchase from renewable sources, it shall be liable to pay penalty as per Regulation 9 of the RPPO Regulations, 2010 (ibid) and the shortfall of the targeted quantum would attract payment of compensation as per Regulation 9 of the RPPO Regulations (ibid).
20. In order to appreciate the version of the HPSEBL, it will be useful to reproduce the provisions of Regulations 4 and 5 of the the RPPO Regulations, 2010 as under:

“4.Quantum of Renewable Power Purchase Obligation (RPPO):-

- (1) The Distribution Licensee shall, during each financial year, purchase such quantum of electricity (in kWh) from renewable sources as is not less than the quantum of electricity (in kWh), worked out as per the Table below:-

Table- Minimum percentage for Renewable Power Purchase Obligation

Year	Minimum Quantum of purchase in percentage from renewable sources (*in terms of energy in kWh) of total consumption excluding consumption met from hydro sources.				
	Solar RPO	Non- Solar RPO			Total RPO
		HPO	Other Non-Solar RPO	Total Non-Solar RPO	
2021-22	10.50%	0.18%	10.50%	10.68%	21.18%
2022-23	As specified by the Commission	0.35%	As specified by the Commission	As specified by the Commission	As specified by the Commission
2023-24		0.66%			
2024-25		1.08%			
2025-26		1.48%			
2026-27		1.80%			
2027-28		2.15%			
2028-29		2.51%			
2029-30		2.82%			
(a) The RPPO will be on total consumption of electricity by an obligated entity, excluding consumption met from hydro-electric sources of power.					
(b) Hydro Power Purchase Obligation (HPO) shall be met from the power procured from large hydro power projects including pump storage projects having capacity more than 25 MW (LHP) commissioned on and after 08.03.2019 and upto 31.03.2030 in respect of 70% of the total generated capacity for a period of 12 years from the date					

- of commissioning. Free power to be provided as per the agreement with the State government and that provided for local Development Fund (LADF) shall not be included within the limit of 70% of the total generated capacity.
- (c) HPO liability of the State/DISCOM could be met out of the free power being provided to the State from LHPs commissioned after 08.03.2019 as per agreement excluding the contribution towards Local Area Development Fund if consumed within the State. Free power (not that contributed for Local area development) only to the extent of HPO liability of the State/ DISCOM shall be eligible for HPO benefit. In case the free power is insufficient to meet the HPO obligations, then additional hydro power to meet HPO obligations.
 - (d) Hydro Power imported from outside India shall not be considered for meeting HPO;
 - (e) In case the achievement of Solar RPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Non-Solar energy purchased beyond specified Non-Solar RPO for that particular year.
 - (f) In case on achievement of other Non-Solar RPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Solar or eligible hydro energy purchased beyond specified Solar RPO or HPO for that particular year.
 - (g) Further, in case on achievement of HPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Solar or other Non-Solar energy purchased beyond specified Solar or Non Solar RPO for that particular year.

Provided that for computing the Renewable Power Purchase Obligation (RPPO) of the Distribution Licensee for a year under this sub-regulation, the following conditions shall also apply, namely:-

- (i) the total consumption of the Distribution Licensee for a year shall include the quantum of electricity purchased, alongwith electricity generated, by it from various sources, including the power purchased under REC mechanism for meeting its requirement for consumption of electricity, and shall also include the transmission and distribution losses, within the area of Distribution Licensee, for meeting such consumption in the State during that year but shall not include the electricity purchased for the trading purposes;
 - (ii) save as provided in the succeeding item (iii) under this sub-regulation, the quantum of electricity to be considered as utilized by the Distribution Licensee from hydro-electric sources for meeting its consumption during a year shall be computed at such percentage of the total consumption in that year as is equal to the percentage derived from the quantum of electricity purchased, including generated, from hydro-electric sources, as envisaged in the tariff order for that year, for meeting the estimated requirement for consumption in the State vis-a-vis the total estimated requirement for that year for consumption in the State; and
 - (iii) the consumption of electricity to be considered as met from hydro-electric sources shall not exceed the electricity purchased (in kWh), including electricity generated, by the Distribution Licensee from hydro-electric sources in that year, after excluding the dedicated sale of power to any person, other than its consumers, by the Distribution Licensee specifically earmarked out of any such purchase from hydro-electric sources.
- (2) Any person/consumer, who consumes power from any source (generation/purchase) interalia including purchase through Open Access, but other than in his capacity as a consumer of Distribution Licensee or by drawl

from a captive generating plant, the RPPOs at the rate(s) mentioned in table in the sub-regulation (1) of this regulation shall be applicable in respect of his consumption from such sources:

Provided that for computing the Renewable Power Purchase Obligation (RPPO) of such obligated entities for a year under this sub-regulation, the following conditions shall also apply, namely:—

- (i) the total consumption of any such Obligated Entity shall include the quantum of electricity purchased, including electricity generated, by it from various sources, including the power purchased under REC mechanism for meeting its requirement for consumption of electricity, and shall also include the transmission and distribution losses incurred within the State for meeting such consumption in the following manner, namely:—
 - (a) in case the electricity is purchased by such Obligated Entity from sources outside the State, the electricity purchased at the State periphery shall be considered as the consumption of the Obligated Entity from such sources;
 - (b) in case the electricity is purchased, or generated, from generating sources located within the State, the electricity (in kWh) injected for such Obligated Entity at the generating bus bar shall be considered as its consumption;
 - (ii) the energy consumed by obligated entity, other than the Distribution Licensee, shall be considered to have been consumed from the sources other than the hydro-electric sources, unless such Obligated Entity establishes to the satisfaction of the State Agency that such consumption was made from hydro-electric sources.
- (2A) For any person consuming power by drawl from a captive generating plant, the RPPOs shall be applicable at the rate(s) specified in the Schedule to these Regulations in relation to his consumption from such captive generating plant:

Provided that the provisions of this sub-regulations (2A) shall be applicable only in relation to the consumption from captive generating plants to which these Regulations apply in terms of clause (c) and clause (d) of regulation 3 of these Regulations.

- (3) The obligated entities may meet their Renewable Power Purchase Obligation (RPPO) as per sub-regulations (1) and (2) of this regulation from any renewable sources, including-
 - (i) purchases from generating stations, based on renewable energy sources;
 - (ii) purchases from any other Distribution Licensee, which would arise from renewable energy sources;
 - (iii) the energy generated from its own renewable sources, if any, by the obligated entity; and
 - (iv) the Renewable Energy purchased from the Power Exchange(s):

Provided that the electricity purchased at pooled cost, as specified in the Central Electricity Regulatory Commission (Terms and Conditions of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010, shall not be taken into account for offsetting such obligations:

Provided further that the Solar power purchase obligation shall be fulfilled from the generation based on Solar sources only:

Provided further that the quantum of electricity generated by the consumer through roof-top Solar PV system under net metering arrangement in any year, shall qualify towards compliance for Solar RPP0 of the Distribution Licensee or the consumer, as the case may be, for that year in accordance with the provisions contained in Himachal Pradesh Electricity Regulatory Commission (Rooftop Solar PV Grid Interactive Systems based on Net Metering) Regulations, 2015:

Provided further that the power purchases under the power purchase agreements from renewable energy sources, already entered into by the Distribution Licensees, shall continue to be made till their present validity, even if the total purchases under such agreements exceed the percentage as specified hereinbefore.

- (5) The Commission may, keeping in view the power supply constraints or other factors beyond the control of the Distribution Licensee or for any other reasons, suo-moto or at the request of an obligated entity, also revise the percentage targets for a year(s) for which Renewable Power Purchase Obligations have been fixed as per sub-regulations (1) and (2) of this regulation.

5. Certificates under the regulations of the Central Commission.-

- “(1) Subject to the terms and conditions contained in these regulations, the Certificates issued under the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 shall be the valid instruments for the discharge of the mandatory obligations set out in these regulations for the obligated entities to purchase electricity from renewable energy sources:

Provided that in the event of the Obligated Entity fulfilling the renewable purchase obligation by purchase of certificates, the obligation to purchase electricity from generation based solar as renewable energy source can be fulfilled by purchase of solar certificates only and the obligation to purchase electricity from generation based on renewable energy other than solar can be fulfilled by purchase of non-solar certificates.

- (2) Subject to such direction as the Commission may give, from time to time, the Obligated Entity shall act consistent with the Central Electricity Regulatory Commission (Terms and Conditions for

recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010, notified by the Central Commission in regard to the procurement of the certificates for fulfillment of the Renewable Power Purchase Obligation under these regulations.

.....
.....”

21. The Central Electricity Regulatory Commission (CERC) has also framed the CERC REC Regulations, 2010. It would be appropriate to reproduce Sub-regulation (1A) of Regulation 5 of these Regulations, as under:-

“(1A) A Distribution Licensee shall be eligible to apply for registration with the Central Agency for issuance of and dealing in Certificates if it fulfills the following conditions:-

(a) It has procured renewable energy, in the previous financial year, at a tariff determined under Section 62 or adopted under Section 63 of the Act, in excess of the renewable purchase obligation as may be specified by the Appropriate Commission or in the National Action Plan on Climate Change or in the Tariff Policy, whichever is higher:

Provided that the renewable purchase obligation as may be specified for a year, by the Appropriate Commission should not be lower than that for the previous financial year:

Provided further that any shortfall in procurement against the non-solar or solar power procurement obligation set by the Appropriate Commission in the previous three years, including the shortfall waived or carried forward by the said Commission, shall be adjusted first and only the remaining additional procurement beyond the threshold renewable purchase obligation-being that specified by the Appropriate Commission or in the National Action Plan on Climate Change or in the Tariff Policy, whichever is higher-shall be considered for issuance of RECs to the Distribution Licensees.

(b) It has obtained a certification from the Appropriate Commission, towards procurement of renewable energy as provided in sub-clause (a) of this regulation.”

22.The Central Agency has also devised a format under ‘Procedure for Issuance of Renewable Energy Certificate to the Eligible Entity’ under CERC REC Regulations, 2010. As per the format, the SERCs may recommend for issuance of certificates, if the Distribution Licensee procured the RE power beyond RPO.

23 From the statutory provisions as set out in the preceding paras, it is clear that;-

- (a) The Distribution Licensee is eligible for RECs, if it fulfills the conditions given in Sub-regulation (1A) of Regulation 5 of the CERC REC Regulations, 2010.
- (b) Regulation 4(1) of the RPPO Regulations, 2010 provides that the Distribution Licensee shall purchase the quantum of the electricity (in kWh) from renewable sources, at a minimum percentage (as specified in the Table) of the total consumption excluding the consumption met from Hydro-Electric sources of power.

Further, as per the conditions of RPO trajectory,

- (i) The Hydro Power Purchase Obligation (HPO) shall be met from the power procured from large hydro power projects including pump storage projects having capacity more than 25 MW i.e. Large Hydro Projects (LHP for short) commissioned on and after 08.03.2019 and upto 31.03.2030 in respect of 70% of the total generated capacity for a period of 12 years from the date of commissioning.
 - (ii) Free power to be provided as per the agreement with the State government and that provided for Local Area Development Fund (LADF) shall not be included within the limit of 70% of the total generated capacity.
 - (iii) The HPO liability of the State/DISCOM could be met out of the free power being provided to the State from LHPs commissioned after 08.03.2019 as per agreement excluding the contribution towards Local Area Development Fund, if consumed within the State.
 - (iv) Free power (not that contributed for Local Area Development) only to the extent of HPO liability of the State/ DISCOM shall be eligible for HPO benefit.
 - (v) In case the free power is insufficient to meet the HPO obligations, then additional hydro power to meet HPO obligations.
- (c) Regulation 5 of the RPPO Regulations, 2010 provides that the certificates issued under the Central Regulations (i.e. CERC REC Regulations, 2010) shall be valid instrument for the discharge of the mandatory obligations, set

out in the RPPO Regulations for the Obligated Entities, to purchase electricity from renewable energy sources. In the event of the Obligated Entity fulfilling the renewable purchase obligation by procuring certificates, the obligation to purchase electricity from solar based generation can be fulfilled by purchasing the Solar certificates (Solar RECs) only and the obligation to purchase electricity from generation based on renewable energy other than Solar, can be fulfilled by purchase of Non-solar certificates.

(d) Regulation 5 (IA) of the CERC REC Regulations, 2010 lays down the conditions for registration with the Central Agency for issuance of certificates and the provisions for obtaining certification from the Commission by the Obligated Entities, which have procured renewable energy in excess of the RPPO target fixed by the Commission. While recommending the case for issuance of RECs to the Distribution Licensee, the State Commission needs to ensure that the conditions/guidelines laid down are duly complied with.

(e) The Central Commission has already approved the procedure for self retention of RECs which means that if any Obligated Entity has inventory of RECs, the same may be utilised to fulfill their RPO compliance, by following the procedure devised by the Central Agency under CERC REC Regulations, 2010.

24. Significantly, the Commission, while framing the RPPO Regulations, has already specified the minimum percentage for Renewable Power Purchase Obligation from Renewable Sources (including Solar Energy) for a period of 3 years (i.e. FY 2019-20 to FY 2021-22). As per Regulation 4 of the RPPO Regulations, 2010, the HPSEBL i.e. the Distribution Licensee has to comply with Solar, Non-solar RPO and HPO as per the Table given as under:-

Year	Minimum Quantum of purchase in percentage from renewable sources (*in terms of energy in kWh) of total consumption excluding consumption met from hydro sources.				
	Solar RPO	Non- Solar RPO			Total RPO
		HPO	Other Non-Solar RPO	Total Non-Solar RPO	
2021-22	10.50%	0.18%	10.50%	10.68%	21.18%
2022-23	As specified by the Commission	0.35%	As specified by the Commission	As specified by the Commission	As specified by the Commission
2023-24		0.66%			
2024-25		1.08%			

2025-26		1.48%			
2026-27		1.80%			
2027-28		2.15%			
2028-29		2.51%			
2029-30		2.82%			

(a) The RPPO will be on total consumption of electricity by an obligated entity, excluding consumption met from hydro-electric sources of power.

(b) Hydro Power Purchase Obligation (HPO) shall be met from the power procured from large hydro power projects including pump storage projects having capacity more than 25 MW (LHP) commissioned on and after 08.03.2019 and upto 31.03.2030 in respect of 70% of the total generated capacity for a period of 12 years from the date of commissioning. Free power to be provided as per the agreement with the State government and that provided for local Development Fund (LADF) shall not be included within the limit of 70% of the total generated capacity.

(c) HPO liability of the State/DISCOM could be met out of the free power being provided to the State from LHPs commissioned after 08.03.2019 as per agreement excluding the contribution towards Local Area Development Fund if consumed within the State. Free power (not that contributed for Local area development) only to the extent of HPO liability of the State/ DISCOM shall be eligible for HPO benefit. In case the free power is insufficient to meet the HPO obligations, then additional hydro power to meet HPO obligations.

(d) Hydro Power imported from outside India shall not be considered for meeting HPO;

(e) In case the achievement of Solar RPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Non-Solar energy purchased beyond specified Non-Solar RPO for that particular year.

(f) In case on achievement of other Non-Solar RPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Solar or eligible hydro energy purchased beyond specified Solar RPO or HPO for that particular year.

(g) Further, in case on achievement of HPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess Solar or other Non-Solar energy purchased beyond specified Solar or Non Solar RPO for that particular year.

25. The first proviso to Sub-regulation (2) of Regulation 9 the RPPO Regulations, 2010 provides as under:

“Provided that in case of genuine difficulty in complying with the renewable power purchase obligation because of non-availability of certificates, the Obligated Entity can approach the Commission to carry forward the compliance requirement to the next year:”.

26. The Commission has already made following observation in its Order dated 10.11.2014, titled M/s Ujaas Energy Ltd. V/s HPSEB Ltd. and others, in petition No. 129/2013:

“32 keeping in view the import of the judgment of Hon’ble APTEL dated 25.04.2014 rendered in Appeal No. 24 of 2013-Indian Wind Energy Association V/s Gujarat Electricity Regulatory Commission & others (Supra), the Obligated Entity cannot be directed to purchase electricity from renewable energy sources, to meet the shortfall of 2013-14 nor there can be direction for purchase of REC in 2014-15 against shortfall of 2013-14. Also since RECs were available, targets cannot be carried forward to future year(s).”

As per the aforesaid observation of the Hon’ble APTEL in Appeal No. 24 of 2013 titled as Indian Wind Energy Association V/s Gujarat Electricity

Regulatory Commission and others, the Commission can allow carry-forward of RPPO compliance of particular financial year to next financial year(s) if, RECs are not available in the market or before allowing carry forward, as the non-availability of RECs is a pre-requisite condition, to allow carry-forward.

27. The Hon'ble APTEL has made following observation in Order dated 10.12.2015, in Appeal No. 54/2015, titled Green Energy Association V/s HPERC and others, (in Appeal against the Order of the Commission dated 30.11.2014 in Petition No. 129/2013), which is reproduced as under:

“11..... We have considered the possible pros and cons of such kind of orders as the present one. If such kind of orders are allowed in future by any Commission then the whole default amount or the amount of compensation shall possibly be directed to be utilized for the development of transmission or sub-transmission infrastructure for evacuation of power from generating stations based on renewable energy sources and the same shall frustrate the purpose of the proviso added to Regulation 9. The strong possibility or likelihood is that if the State Commission is allowed to pass such kind of order in future, namely directing utilization of the entire default amount or amount of compensation only for the development of transmission or sub-transmission infrastructure without allocating even a fraction of the default amount, the whole purpose of insertion of the proviso to Regulation 9 shall stand frustrated or discouraged. The purpose and intention behind insertion of Regulation 9 appears to be to give discretion to the State Commission to decide the percentage which can be directed to be utilized for purchase of renewable energy certificates by the Distribution Licensee from the renewable energy developers. The original purpose of such kind of Regulation was to encourage the renewable energy developers or non-conventional energy developers to continue generation of renewable energy, hence the DISCOMs were required to purchase RECs, in case of shortfall in RPPOs that was towards the fulfillment of the encouragement given to the renewable energy developers.”

28. HPO Compliance:-

- 28.1 During the Financial Year 2021-22, the HPSEBL has purchased 5.697 MUs of Hydro Power against HPO of 5.79 MUs for FY 2021-22 from Government of Himachal Pradesh against its entitlement of free power in Sawra Kuddu Hydro Electric Project.
- 28.2 The HPSEBL has fulfilled more than 85% of the HPO compliance and eligible for adjustment of deficit of 0.093 HPO for FY 2021-22 with Non-solar RE purchase beyond its Non-solar RPO for FY 2021-22.

28.3 Thus HPSEBL is allowed to adjust the deficit of 0.093 MUs in its HPO for FY 2021-22 with the Non-solar RE purchase beyond its Non-solar RPO for FY 2021-22. The status is as tabulated below:-

Hydro Power Purchase Obligation (HPO) (in MUs)	Hydro Power purchased (in MUs)	Shortfall/surplus (in MUs)	Status after adjustment of Shortfall /surpluses with Non-Solar Power Purchased.
5.79	5.697	0.093	Compliant

29 **Solar RPO Compliance:-**

29.1 In compliance to Hon'ble APTEL judgment in appeal No. 99 of 2020 & IA No. 483 of 2020 & O.P. 2 of 2020 & IA No. 485 of 2020 dated 20th August, 2020, considering the solar RPO target as 2.75% (as per trajectory notified by MoP for FY 2016-17 vide Order dated 22nd July, 2016) instead of 2.50% (as fixed by the HPERC), the additional solar obligation is worked out as given in the table below:-

Year	Demand (MUs)	Demand excluding Hydro (MUs)	Solar RPO % age	Total Obligation MUs	Total Solar RE available for supply to the consumers (MUs)	Surplus/shortfall (MUs)	Remarks
2016-17	8896.90	1815.42	0.25	4.33	---	-4.33	To make the Distribution Licensee compliant, this shortfall is adjusted with solar energy procured in the FY 2021-22.

29.2 During the financial year 2021-22, the HPSEBL has purchased 302.88 MUs of Solar RE Power against Solar RPO of 337.72 MUs for FY 2021-22. In compliance to the Commission's Order dated 02.12.2021 in Petition No. 29/2021, after meeting the cumulative deficit of 146.19 MUs as on 31.03.2022, the HPSEBL has a net deficit of 185.36 MUs of Solar RE Power for FY 2021-22 as tabulated below:-

Year	Surplus/shortfall (in MUs) of Solar RPO	Status after adjustment of Shortfall /surpluses as per Commission's Order dated 19.08.2021
2021-22	-185.36	From total solar RE procurement of 302.88 MUs in FY 2021-22, the balance solar RE energy for FY 2021-22, after adjusting cumulative deficit of solar RPO for previous years i.e. 146.19 MUs is 156.69 MUs (302.88 MUs-146.19 MUs) against the solar RPO of 337.72 MUs for FY 2021-22. The net shortfall of solar RPO for FY 2021-22= 185.36 MUs (337.72 MUs + 4.33 MUs – 156.69 MUs).

29.3 Since the solar projects are not being commissioned in time in the State due to poor monitoring and planning resulting in non-compliance by the Distribution Licensee, the HPSEBL is directed to offset its deficit of 185.36 MUs of Solar RE Power by 31st January, 2023 through any of the available means i.e.

- (i) by procurement of Solar RECs; and/or
- (ii) by procurement of additional Solar power during the remaining part of the current financial year dedicated for adjustment of this deficit.

30. Non-Solar RPO Compliance.-

30.1 So far a Non-solar RPO compliance is concerned, it is clear that during the financial year 2021-22, the HPSEBL, after meeting its obligations, has a net surplus of 519.92 MUs of Non-solar RE Power.

30.2 Thus, the Commission allows the adjustment of deficit of 0.093 MUs in its HPO for FY 2021-22 with the Non-solar RE purchase beyond its Non-solar RPO for FY 2021-22. The HPSEBL, after such adjustment, has a net surplus of 519.827 MUs of Non-Solar RE Power.

CONCLUSION

31 The HPSEBL is compliant with its Non-Solar RPO for FY 2020-21. For issuance of Non-solar Renewable Energy Certificates (RECs) of excess Non-solar energy procured by the HPSEBL i.e. 519.827 MUs for FY 2021-22, beyond its Non-solar RPO compliance, the HPSEBL shall complete all the codal formalities including its accreditation expeditiously.

32 In case the Petitioner i.e. HPSEBL fails to offset the Solar RPO deficit, as quantified above by 31.01.2023, it shall not only be liable to be further penalized under Regulation 9 (2) of the RPPO Regulations, 2010 but may also have to face action under section 142 of the Electricity Act, 2003.

33 In view of the above, the Petition succeeds and allowed. The Petitioner i.e. HPSEBL is directed to take necessary action for the fulfillment of solar RPO in judicious manner and also plan its renewable energy procurement in such a way

that there may not be any deficit in renewable purchase obligation in the ensuing years.

The file after needful be consigned to records.

Sd-
(Shashi Kant Joshi)
Member

Sd/-
(Yashwant Singh Chogal)
Member(Law)

Sd/-
(Devendra Kumar Sharma)
Chairman

HDPERC