

**BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY  
COMMISSION, SHIMLA**

Petition No. : 102 of 2024

Heard on: 14.06.2024

**Decided on: 19.06.2024**

**CORAM:**

**Sh. Yashwant Singh Chogal,  
MEMBER (Law)**

**Sh. Shashi Kant Joshi,  
MEMBER**

**In the matter of:-**

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

..... **Petitioner**

Versus

1. The Director, Directorate of Energy, MC Parking Building, 2<sup>nd</sup> Floor,  
Near Tutikhandi Crossing, Shimla-171005.
2. The Chief Executive Officer, HIMURJA through, Urja Bhawan, SDA  
Complex, Kasumpti, Shimla-09.
3. The Chief Engineer, State Load Despatch Centre, Totu, Shimla-11

..... **Respondents**

**Petition for authentication of the renewable energy against  
Renewable Power Purchase Obligation (RPO) for FY 2023-24 under  
the provisions of Regulation 4 of HPERC (Renewable power  
Purchase Obligation and its compliance) Regulations, 2023 and  
eligibility of REC to the distribution licensee for excess renewable  
energy procured beyond RPO.**

Present:-

Sh. Mandeep Singh, Chief Engineer (System Operation) for  
the Petitioner.

Sh. Shanti Swaroop (Legal Consultant) for the Respondent  
No. 1

Sh. Vineet Sood, Project Manager for the Respondent No. 2

Sh. Rakesh C. Negi, Superintending Engineer for the  
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 Himachal Pradesh Electricity Regulatory Commission (Renewable Power Purchase Obligation and its Compliance) Regulations, 2023 (hereinafter referred as “the RPO Regulations, 2023”) seeking authentication of Renewal Energy Purchase for FY 2023-24 in respect of Wind Power Purchase Obligation (Wind RPO for short), Hydro Purchase Obligation (HPO for short), Other Renewable Purchase Obligations (Other RPO for short) and Energy Storages Obligation (ESO).

### **THE CASE OF THE PETITIONER**

2. As per the HPSEBL, Sub-regulation (2) of Regulation 4 of the RPO Regulations, 2023 provides that the Obligated Entity shall, during each year, purchase or generate and consume such quantum of electricity (in kWh) from renewable sources as is not less than the quantum of electricity (in kWh), worked out as per provisions of the Schedule appended to the RPO Regulations, 2023. The Schedule appended to the above Regulations pertaining to the year 2023-24 provides for minimum percentage for Renewable Power Purchase Obligations as mentioned below:

Year	Minimum Quantum of Purchase in percentage from renewable sources of total consumption			
	Wind RPO	HPO	Other RPO	Total RPO
2023-24	1.60%	0.66%	24.82%	27.08%

3. According to the Petitioner, for the purpose of above Obligations, it has computed its consumption as per the methodology given under Sub-regulation (2) of the Regulation 4 of the RPO Regulations, 2023 and accordingly, worked out total consumption of 13034.989 MUs for FY 2023-24. The target of Renewable Power Purchase Obligations (RPPO for short) for the FY 2023-24 for HPSEBL has been shown as under:

Description	Wind RPO	HPO	Other RPO	ESO
Total Consumption	13034.989 MUs	13034.989 MUs	13034.989 MUs	13034.989 MUs
%age RPPO	1.60%	0.66%	24.82%	1.00%
RPO target (in terms of energy)	208.560 MUs	86.031 MUs	3235.284 MUs	130.350MUs

4. The Energy Storages Obligation (ESO), Wind Purchase Obligation (Wind RPO), Hydro Purchase Obligation (HPO), Other Renewable Purchase Obligation (Other RPO) have been described by the Petitioner as under:-

**A. Energy Storages Obligation (ESO):-**

(i) The RPO Regulations, 2023 provides for Energy Storage Obligations (ESO) @ 1.0% of total energy consumed for FY 2023-24 which shall be treated as fulfilled only when 85% of the total energy

stored in the Energy Storage System (ESS), on an actual basis, is procured from renewable energy sources. The target of Energy Storage Obligation for FY 2023-24 is worked out to be 130.350 MUs.

(ii) At present, the HPSEBL doesn't have any storage facility in the State for storage of renewable energy, hence is not in a position to comply the same by storing the renewable energy and having a shortfall of 130.350 MUs to meet ESO. However, the proviso given under clause (j) of the Schedule appended to the RPO Regulations, 2023 provides that in case the Obligated Entity fails to meet RPO (referring to ESO), a quantum equivalent to the percentage as may be fixed by the Central Commission for such purpose, or in case no such percentage has been fixed, 200% of such shortfall for that year shall be apportioned to various categories as shown in the Petition under Table-1 in the ratio of RPOs for each category in respect of the Obligated Entity for the relevant year.

(iii) As per the above mentioned criteria for the shortfall of 130.350 MUs in ESO, the same is apportioned to various categories of RPO as under:

Item	Description	Wind RPO	HPO	Other RPO	Total RPO
		MUs	MUs	MUs	MUs
(I)	RPO for the Obligated Entity for 2023-24	208.560	86.031	3235.284	3529.875
(II)	RPO from ESO included in item (I)	130.350A	130.350B	130.350C	130.350
(III)	RPOs fulfilled from ESS by the Obligated Entity (i.e. less than the RPO	0.00A	0.00B	0.00C	0.00

	under para (i) of this schedule)				
(IV)	Adjustment on account of shortfall, if any, in meeting RPPO from ESOs under para (I) of this schedule i.e. 200% of the shortfall	260.700A	260.700B	260.700C	260.700
(V)	The RPPOs to be met under Table-1 of the schedule including energy actually met from ESS after adjustment of the shortfall in RPPOs under Para (i) of this Schedule (Item (I)-(II)+(IV))	208.560-130.350A+260.700A	86.031-130.350B+260.700B	3235.284-130.350C+260.700C	3660.225

$$A = \text{Wind RPO} / \text{Total RPO} = \frac{208.560}{3529.875} = 0.0591$$

$$B = \text{HPO} / \text{Total RPO} = \frac{86.031}{3529.875} = 0.0244$$

$$C = \text{Other RPO} / \text{Total RPO} = \frac{3235.284}{3529.875} = 0.9165$$

$$A+B+C=1$$

- (iv) As per the Petitioner, after inserting the values of A, B & C, the Wind RPO, HPO, Other RPO and the total RPO shall be as under:

Item	Description	Wind RPO	HPO	Other RPO	Total RPO
		MUs	MUs	MUs	MUs
(I)	RPO for the Obligated Entity for 2023-24	208.560	86.031	3235.284	3529.875
(II)	RPO from ESO included in item (I)	7.702	3.177	119.471	130.350
(III)	RPOs fulfilled from ESS by the Obligated Entity (i.e. less than the RPO under para (i) of this schedule)	0.000	0.000	0.000	0.000
(IV)	Adjustment on account of shortfall, if any, in meeting RPPO from ESOs under para (I) of this schedule i.e. 200% of the shortfall	15.403	6.354	238.943	260.700
(V)	The RPPOs to be met under Table-1 of the schedule including energy actually met from ESS after adjustment of the shortfall in RPPOs under Para (i) of this Schedule (Item (I)-(II)+(IV))	216.261	89.208	3354.756	3660.225

**(B) Wind Purchase Obligations (Wind RPO):**

- (i) It is averred that the detail of net shortfall/surplus of the HPSEBL in respect of Wind Purchase Obligations (WPO) during FY 2023-24 shall be as per the table below:

<b>Detail of Wind RPO Compliance</b>		
<b>Sr. No.</b>	<b>Description</b>	<b>Quantum</b>
1.	HP's requirement within the State	13034.989 MUs
2.	Wind Purchase Obligations (%)	1.60%
3.	Wind Purchase Obligations in terms of energy	208.560 MUs
4.	Wind Purchase Obligation with apportionment of ESO as per Table-4	216.261MUs
5.	Wind Energy purchased against Wind RPO	Nil
6.	<b>Net surplus (+)/ short fall</b>	<b>-216.261 MUs</b>

- (ii) The Petitioner has mentioned the following reasons for the shortfall:-

(a) Presently the HPSEBL has no tie up with generators for procurement of wind power. Thus, the HPSEBL has a shortfall of 216.261MU to meet the wind RPO.

(b) Clause (iii) (h) of the Schedule appended to the RPO Regulations, 2023 provides that any shortfall in achievement of 'Wind RPO' in a particular year can be met with excess energy consumed from Hydro Power Plants, which is in excess of 'HPO' for that year and vice versa.

(c) The HPSEBL has procured 479.600 MUs of hydro energy in excess to the HPO specified for FY 2024-25 (it should be FY 2023-24) as shown in below (Table-6 in the Petition), hence, the shortfall of 216.261MUs in Wind RPO is proposed to be adjusted with this excess hydro energy procured by the HPSEBL.

**(C) Hydro Purchase Obligations (HPO):**

(i) As per the Petitioner, the details of net shortfall/surplus of the HPSEBL in respect of Hydro Purchase Obligations (HPO) during FY 2023-24 shall be as per the table in the Petition as reproduced below (Table No. 6 in the Petition):

<b>Detail of HPO Compliance</b>		
<b>Sr. No.</b>	<b>Description</b>	<b>Quantum</b>
1.	HP's requirement within the State	13034.989 MUs
2.	Hydro Purchase Obligations of HPSEBL (%)	0.66%
3.	Hydro Purchase Obligations of HPSEBL in terms of energy	86.031 MUs
4.	Hydro Purchase Obligation with apportion of ESO as per Table-4	89.208 MUs
5.	Details of purchase against HPO	
	(i)Energy Procured from HEPs commissioned on or after 08.03.2019	562.731 MUs
	(ii) Energy procured against GoHP Free Power (excluding LADF) from HEPs commissioned on or after 08.03.2019	6.077 MUs
	(ii) Quantum of REC Procured (in terms of energy)	Nil
6.	Total procurement	568.808 MUs
7.	surplus (+)/ short fall (-)	479.600
8.	<b>Net surplus after adjusting the balance shortfall of -216.261 MUs in Wind RPO</b>	+263.338 MUs

(ii) As shown in the table above, the HPSEBL has procured energy quantum of 568.808 MUs from eligible Hydro Electric Projects (HEPs) towards the compliance of Hydro Purchase Obligations specified by the Commission and has procured excess energy of 479.600 MUs beyond HPO for FY 2023-24. As per the RPO Regulations, 2023, any shortfall in achievement of 'Wind RPO' in a particular year can be met with excess energy consumed from Hydro Power Plants, which is in excess of 'HPO' for that year and vice versa. Hence, the HPSEBL has

prayed for adjusting the shortfall of 216.261MUs in Wind RPO with excess purchase of 479.600 MUs beyond HPO by the HPSEBL. In case, the Commission allows the same, the HPSEBL shall have the balance surplus of 263.338 MUs (479.600MUs-216.261MUs) beyond HPO. The HPSEBL has, therefore, prayed for issuance of certificates against surplus purchase of 263.338 MUs as per the provisions of Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 (the CERC REC Regulations, 2022 for short).

**(D) Other Renewable Purchase Obligations (Other RPO):**

(i) The HPSEBL has given the details of net shortfall/surplus of the HPSEBL in respect of 'Other Renewable Power Purchase Obligations' during FY 2023-24 as mentioned in the table below (Table No. 7 of the Petition):

<b>Details of 'Other RPO' Compliance</b>		
<b>Sr. No.</b>	<b>Description</b>	<b>Quantum</b>
1.	HP's requirement within the State	13034.989 MUs
2.	Other Renewable Purchase Obligations 'Other RPO' (%)	24.82%
3.	'Other RPO' of HPSEBL in terms of energy	3235.284 MUs
4.	Other Renewable Purchase Obligation with apportion of ESO as per Table-4	3354.756MUs
5.	Details of purchase against 'Other RPO'	
	(i)Energy Procured from HEPs commissioned before 08.03.2019	6389.276 MUs
	(ii) Energy Procured against GoHP Free Power from HEPs commissioned before 08.03.2019	497.869 MUs
	(iii) Generation from Own Projects of HPSEBL (excluding GoHP Free Power)	1602.908 MUs
	(iv) Energy Procured from Grid Mounted Solar PV Projects	123.701 MUs
	(v) Energy Generated by Solar Rooftop	17.379 MUs



	Plants installed in the State	
	(vi) Renewable Energy Procured through GDAM/ GTAM	0.658 MUs
	(vii) Quantum of REC Procured (in terms of energy)	Nil
5.	Total procurement	8631.790 MUs
6.	surplus (+)/ short fall (-)	+5277.035 MUs

(ii) According to the HPSEBL, it has procured net energy quantum of 8631.790 MUs against the 'Other RPO' target of 3354.756 MUs (including ESO apportion) and has surplus of 5277.035 MUs (8631.790 MUs –3354.756 MUs) of excess energy procured beyond 'other RPO' specified by the Commission. Hence, the HPSEBL has prayed for issuance of certificates against the surplus purchase of 5277.035 MUs.

#### **REPLY OF THE RESPONDENTS**

5. The Respondents No. 1, 2 and 3 on notice have filed separate replies to the Petition.

#### **REPLY OF THE RESPONDENT No. 1**

6. The Respondent No. 1, the Directorate of Energy (DoE for short), State Agency, in its reply has averred that the initial Paras (1-4) of the Petition depicting applicable trajectory of RPO compliance based on the RPO Regulations, 2023 need no reply being matter of record. The Petitioner has submitted the detail of total consumption of the HPSEBL RPO Compliance for FY 2023-24 as 13034.989 MUs (Total purchase minus total sale outside State). However, it is not possible to comment upon the correctness of this consumption quantum, as the State Load Dispatch Centre is the Nodal Agency for maintaining the energy account in

accordance with the HPERC Regulations. The Petitioner has shown the Energy Storage Obligation (ESO) for FY 2023-24 as 130.350 MUs and as per the DISCOM, it has no storage facility in State and, therefore, not in a position to make compliance of the same and, thus, having a shortfall of 130.350 MUs ESO. The shortfall has been apportioned to various RPO categories and having RPO obligations i.e. (Wind RPO 216.261 MUs, HPO 89.208 MUs & other RPO 3354.756 MUs with total RPO Obligation as 3660.225 MUs). In this regard, the Petitioner has apportioned the deficit of ESO in various RPO categories as per HPERC Regulations. Further averred that the Petitioner has shown the Wind purchase obligations for FY 2023-24 as 216.261 MUs informing that the DISCOM has no tie up with the generators for procurement of wind power. Thus, having a shortfall of 216.261 MUs Wind RPO and as per clause (iii) (h) of the schedule appended to the RPO Regulations, 2023, any shortfall in achievement of Wind RPO, in a particular year, can be met with excess energy consumed from Hydro Power Plants, which is in excess of HPO for that year and vice versa. Therefore, the HPSEBL has procured 479.600 MUs of hydro energy in excess to the HPO specified for FY 2023-24 and the shortfall of 216.261 MUs in Wind RPO can be adjusted with the excess hydro energy procured by the HPSEBL. As per the Respondent No. 1, after meeting all its obligations, excess energy under HPO category can be considered for adjustment and left out be allowed for consideration for issuance of RE

Certificates. Also averred that the Petitioner has shown the Hydro Purchase Obligations (HPO) for FY 2023-24 as 89.208 MUs informing that the DISCOM has procured 568.808 MUs during FY 2023-24 from HEPs commissioned on or after 08.03.2019. The DISCOM after meeting its HPO compliance of 216.261 MUs against deficit of WPO is left with balance quantum of 263.338 MUs energy under HPO. It is averred that the DISCOM has requested to adjust the shortfall of 216.261 MUs in wind RPO with excess purchase of 479.600 MUs beyond HPO and for issuance of certificates in terms of CERC REC Regulation 2022. As per HPERC Regulation, 2023, the wind RPO can be adjusted with excess Hydro RPO and after meeting all its obligations, excess energy under HPO can be considered to be allowed for consideration for issuance of RE Certificates. According to the Replying Respondent, the Free Power mentioned in table 6 of the Petition is correct as per the record available with Directorate of Energy. Also that the Petitioner has submitted the purchase data for energy considered from other Renewable Power Purchase Obligations during FY 2023-24 for the purpose of other renewable power purchase obligations etc. The Petitioner has procured net energy quantum of 8632.445 MUs (inadvertently mentioned as 8632.445 MUs but in fact the same is 8631.790 MUs) against the Other RPO target of 3354.756 MUs (including ESO apportion) and has 5277.035 MUs of excess energy procured beyond other RPO. It is averred that after meeting all its obligations and excess energy

under other category, the surplus can be considered to be allowed for consideration for issuance of RE Certificates.

### **REPLY OF THE RESPONDENT No. 2**

7. The Respondent No. 2/ HIMURJA in its reply has submitted that the contents of the Petition do not pertain to the HIMURJA.

### **REPLY OF THE RESPONDENT No. 3**

8. The Respondent No. 3/ HPSLDC in its reply has submitted that the energy quantum of own generation, energy purchased from Power Exchange, free power share, share in ISGC (Inter State Generating Stations) & Central State Generating Stations, banking energy pertaining to HPSLDC has been checked and found to be generally in order. Details of energy quantum alongwith source of data has also been submitted with the reply.

9. No rejoinder has been filed.

### **ANALYSIS BY THE COMMISSION**

10. We have heard Sh. Mandeep Singh, Chief Engineer (System Operation), Shanti Swaroop, Ld. Legal Consultant for the Respondent No. 1, Sh. Vineet Sood, Project Manager for the Respondent No. 2 and Sh. Rakesh C. Negi, Superintending Engineer for the Respondent No. 3 and have perused the entire record carefully.

11. Before we advert to the merits of the Petition, it is relevant to reproduce the relevant Regulatory provisions as under:-

## **RELEVANT REGULATORY PROVISIONS**

12. The Commission has framed the RPO Regulations, 2023, specifying the minimum percentage of RPOs for Wind RPOs, HPOs, Other RPOs and ESOs for the Distribution Licensee, as well as the Captive and Open Access Users/Consumers, with a provision that the Renewable Energy Certificates issued under the CERC REC Regulations, 2022 shall be the valid instruments for the discharge of the mandatory obligations set out in the RPO Regulations, 2023 for the Obligated Entities to purchase electricity from renewable energy sources during each financial year as specified by the Commission. Regulations 4 and 5 of the RPO Regulations, 2023 are reproduced as under:

**“4. Quantum of Renewable Power Purchase Obligation (RPPO).-** (1) *The Obligated Entity shall, during each year, purchase or generate and consume such quantum of electricity (in kWh) from renewable sources as is not less than the quantum of electricity (in kWh), worked out as per provisions of Schedule:*

*Provided that the Captive Power Plants (CPPs) commissioned before 01.04.2016, RPO shall be at the level specified for the Financial Year 2015-16 by the Commission under RPO Regulations, 2010. For CPPs commissioned from 01.04.2016 onwards, the RPO level shall be applicable as specified by the Commission for the respective financial year of commissioning of the CPP under RPO Regulations, 2010 and these Regulations. In case of any augmentation in the capacity of CPPs, the RPO for augmented capacity shall be the RPO applicable for that financial year in which the CPP has been augmented.*

(2) *Subject to the provisions contained in Regulation (3) of these Regulations, the consumption of the Obligated Entity shall be computed by taking into account the following, namely:-*

(i) *the total energy purchased from various sources, interalia, including the purchases under Power Purchase Agreement(s), through energy exchanges, Unscheduled Interchange power and from joint sector projects etc. etc.;*

- (ii) *the energy generated (excluding auxiliary consumption) from the power plants, owned exclusively or jointly, by it. This shall include the standby generating set(s) also;*
- (iii) *the transmission and distribution losses (T&D losses for short) borne by it for conveyance of power from the point of purchase/ generation to the point of consumption in relation to Clause (i) and (ii);*
- (iv) *the sale of energy out of the energy so purchased/generated, inter-alia, including transmission and distribution losses borne by it for conveyance of power from the point of purchase/generation to the point of such sale shall be excluded:*

*Provided that in case it is not feasible to identify such losses separately, the average T&D losses as per Clause (iii) shall be considered.*

- (v) *in case of the banking arrangement(s), the energy banked/returned by the Distribution Licensee shall be considered as sale under Clause (ii), (iv) and the energy received shall be treated as purchased under Clause (i) and (iii).*

(3) *Any person/consumer, who consumes power from any source (generation/purchase), inter-alia, 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) provided in Schedule under Sub-regulation (1) of this Regulation shall be applicable in respect of his consumption from such sources:*

*Provided that the energy purchased/generated by Obligated Entity, shall be considered to have been arranged from the sources other than the RE Sources, unless such Obligated Entity establishes to the satisfaction of the State Agency that such arrangement was arranged from RE Sources:*

(4) *The Commission may, keeping in view the power supply constraints or other factors beyond the control of the Obligated Entity(ies) or for any other reasons, Suo-Moto or at the request of an Obligated Entity, also revise the percentage targets or allow inter category adjustment over and above those permissible as per the schedule to these Regulations taking into account the non-availability of such renewable energy or RE certificates in respect of any one or more categories of the RPPO, for a year(s) for which Renewable Power Purchase Obligations have been fixed as per Schedule of these Regulations.*

**5. Fulfillment of Renewable Power Purchase Obligations (RPPOs).-** (1) *Each of the Obligated Entity shall meet, on yearly basis, the RPPOs separately under each of the categories (i.e. for Wind Energy, Hydro Power Purchase (HPO), other renewable energy as well as wind storage and solar storage renewable energy) as per Schedule of these Regulations:*

*Provided that the Obligated Entity shall endeavour to meet RPPOs under each category on quarterly basis.*

(2) *The Obligated Entity may meet its Renewable Power Purchase Obligation (RPPO), as specified in Regulation 4 and Schedule of these Regulations, from the renewable sources relevant to respective categories of RPPOs, including the following, namely:-*

- (i) purchase of energy from generating stations, based on RE Sources;*
- (ii) purchase of energy from any other person, or any platform facilitating exchange of power, which would arise from RE Sources;*
- (iii) purchase of free power (royalty) of the State Government by the Distribution Licensee depending upon the renewable source from where such free power has arisen subject to the condition and limitation as may be prescribed by the Central Government from time to time;*
- (iv) the energy generated from its own RE Sources, if any; and*
- (v) receipt of energy under banking arrangement(s) which has, as per the agreement(s) arisen from RE Sources:*

*Provided that the T&D losses borne by the Obligated Entity in relation to procurement of energy shall also be included for computing the quantum of energy procured for each of such sources:*

*Provided further that the Obligated Entity may also meet RPPOs by redeeming, wherever permissible, the certificates already held by it:*

*Provided further that the renewable energy sold, if any, by the Obligated Entity to any other entity out of availability as per Clause (i) to (v) as well as the T&D losses borne by the Obligated Entity from a point of purchase/ generation to the point of such sale, shall not qualify for offsetting RPPOs:*

*Provided further the electricity purchased by the Obligated Entity under REC mechanism as per Regulation 10 of these Regulations shall not qualify for offsetting RPPOs:*

*Provided further that the quantum of electricity generated by the Consumer/Prosumer, being an Obligated Entity, through rooftop solar PV system under net metering/net billing/ group metering arrangements in any year, shall qualify towards compliance for RPPO of the Distribution Licensee or the Consumer/Prosumer, 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 System) Regulations, 2015 renamed and amended from time to time.*

- (vi) The Obligated Entity can also met their Renewable Purchase Obligation by purchasing green hydrogen or green ammonia and the quantum of such green hydrogen or green ammonia would be computed by considering the equivalence to green hydrogen or green ammonia produced from the one MWh of electricity from the renewable sources or its multiplies and norms in this regard as may be notified by the Central Commission.*

(vii) *The procurement of green energy from the Distribution Licensee or any person other than the Distribution Licensee as per the Electricity (Promoting Renewable Energy through Green Energy Open Access) Rules, 2022, by the open access consumer being an Obligated Entity, in excess of Renewable Purchase Obligation, shall be counted towards the Renewable Purchase Obligation Compliance of the Distribution Licensee.*

(3) *In case the Obligated Entity expects any shortfall in meeting RPPOs of one or more categories in a year, it shall meet such shortfall by procuring power, or certificates, from RE Sources based on respective technology (ies) before close of that year:*

*Provided that the shortfall for a category of RPPOs in a year may be offset, to the extent permissible under Schedule of these Regulations or as per Sub-regulation (4) of Regulation 4 of these Regulations, by adjustment of surplus availability under by other category of RE Sources:*

*Provided further that in case the CERC REC Regulations, 2022 or the Procedure made thereunder, provide for inter category convertibility of certificates on the basis of Certificate multipliers and such multipliers shall also be applicable for the purpose of offsetting the shortfalls or computing surpluses. The shortfall in any category of RPPOs may be met by purchasing certificates related to other categories of RPPOs by suitably applying such Certificate multiplier fixed by the Central Commission.*

(4) *Failure on the part of any Obligated Entity to meet its RPPO in any financial year shall be dealt in accordance with the provisions contained in Regulation 9 of these Regulations.”*

13. The Central Electricity Regulatory Commission (CERC) has also framed the CERC REC Regulations, 2022. It would be appropriate to reproduce Sub-regulation (1) and Sub-regulation (4) of Regulation 4, Regulation 10 and Regulation 16 of these Regulations, as under:-

**“4. Eligibility for Issuance of Certificates**

(1) *Following entities shall be eligible for issuance of Certificates:*

- (a) *Renewable energy generating stations,*
- (b) *Captive generating stations based on renewable energy sources,*
- (c) *Distribution licensees, and*
- (d) *Open access consumers*

(4). *An obligated entity being a distribution licensee or an open access consumer, which purchases electricity from renewable energy sources in excess of the renewable purchase obligation as determined by the concerned State Commission shall be eligible for issuance of Certificates to the extent of purchase of such excess electricity from renewable energy sources.*



### **10. Issuance of Certificates**

(1) An eligible entity which has been granted registration or deemed to have been granted registration may apply for issuance of Certificates, to the Central Agency in accordance with the Procedure of Issuance of Certificate to be issued by the Central Agency as part of the Detailed Procedure.

(2) Application for issuance of Certificates shall be made by an eligible entity being a renewable energy generating station or a captive generating station based on renewable energy sources, to the Central Agency within six months from the corresponding generation by the eligible entity: Provided that no Certificate shall be issued in case the application is made beyond the period of six months from the corresponding generation.

(3) Application for issuance of Certificates shall be made by an eligible entity being a distribution licensee or an open access consumer within three months from the end of a financial year, along with a copy of certification from the concerned State Commission about purchase of electricity from renewable energy sources in excess of the renewable purchase obligations as determined by the concerned State Commission: Provided that no Certificate shall be issued in case the application is made beyond the period of three months from the end of the financial year.

(4) The Central Agency shall, within fifteen days from the date of receipt of complete application for issuance of Certificates from an eligible entity, issue Certificates or reject the application recording the reasons for such rejection and intimate the same to the concerned entity.

(5) The Certificates shall be issued to the eligible entity being a renewable energy generating station or a captive generating station based on renewable energy sources, on the basis of the electricity generated and injected into the grid or deemed to be injected in case of self-consumption by the eligible captive generating station based on renewable energy sources and duly accounted in the Energy Accounting System:

- (i) as per the Grid Code or the State Grid Code, as the case may be, or
- (ii) based on written communication of distribution licensee to the concerned State Load Despatch Centre or Regional Load Despatch Centre with regard to the energy input by the renewable energy generating station and captive generating station based on renewable energy sources which are not covered under the existing scheduling and despatch procedures.

(6) The entities granted registration or deemed to have been granted registration under these regulations shall be eligible for issuance of Certificates for the validity period of their registration.

### **16. Detailed Procedure**

(1) The Central Agency shall issue the Detailed Procedure after stakeholders' consultation within a period of 3 months of notification of these regulations and submit the same for information to the Commission.

(2) The Detailed Procedure shall contain procedures including, but not limited to:

- (a) Procedure for accounting of generation in respect of eligible entities as referred in clause (2) of Regulation 3 of these regulations;*
- (b) Procedure for Accreditation as referred in clause (2) of Regulation 6 of these regulations;*
- (c) Procedure for Registration for Certificate as referred to in clause (1) of Regulation 8 of these regulations;*
- (d) Procedure for Issuance for Certificate as referred to in clause (1) of Regulation 10 of these regulations;*
- (e) Periodicity for exchange of Certificate through power exchange or through electricity traders as referred to in clause (2) of Regulation 11 of these regulations;*
- (f) other related and incidental matters.”*

14. The Central Agency i.e. the NLDC has also devised a format under ‘Procedure for Issuance of Renewable Energy Certificates to the Eligible Entity(ies)’ under the CERC REC Regulations, 2022. As per the format 3.5 of the procedure framed under the CERC REC Regulations, 2022, the State Electricity Regulatory Commission may recommend for issuance of certificates, if the Distribution Licensee procures the RE power beyond the RPO.

15. From the statutory provisions, as set out in the preceding Paras, it is apparent that :-

- (a) The Distribution Licensee is eligible for RECs, if it fulfills the conditions given under Sub-regulation (1) and (4) of Regulation 4 and Regulation 10 of the CERC REC Regulations, 2022.
- (b) Regulation 4 of the RPO Regulations, 2023 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 Schedule appended to the Regulations) of the total

consumption. Further, as per the conditions of RPPO trajectory, as mentioned in the Schedule appended to RPO Regulations, 2023, it has been specified as under:-

*“(i) Wind RPO shall be met by energy produced from Wind Power Projects (WPPs), commissioned after 31<sup>st</sup> March 2022 and the Wind Energy consumed over and above 7% from WPPs commissioned till 31<sup>st</sup> March, 2022.*

*(ii) HPO shall be met only by energy produced from Hydro Power Projects (including PSPs) and Small Hydro Projects (SHPs) commissioned after 8<sup>th</sup> March 2019.*

*(iii) Other RPO may be met by energy produced from any RE power project not mentioned in (i) and (ii) above.*

*(a) From FY 2022-23 onwards, the energy from all Hydro Power Projects (HPPs) will be considered as part of RPO. The HPO trajectory, as has been notified earlier will continue to prevail for Hydro Power Projects (including PSPs) and Small Hydro Projects (SHPs) commissioned after 8<sup>th</sup> March 2019. Energy from all other HPPs including free power from HPPs commissioned before 8<sup>th</sup> March, 2019 will be considered as part of ‘RPO’ under category of ‘other RPO’.*

*(b) RPO shall be calculated in energy terms as a percentage of total consumption of electricity.*

*(a) HPO obligations may be met from the power procured from eligible Hydro Power Projects (including PSPs) and Small Hydro Projects (SHPs) commissioned on and after 8<sup>th</sup> March, 2019 to 31<sup>st</sup> March, 2030.*

*(b) HPO obligation of the Distribution Licensee may be met out of the free power being provided to the State from Hydro Power Projects (including PSPs) and Small Hydro Projects (SHPs), commissioned after 8<sup>th</sup> March, 2019 as per agreement at that point of time excluding the contribution towards LADF, if consumed within the State. Free power (not that contributed for Local Area Development) shall be eligible for HPO benefit.*

*(c) In case, the free power mentioned above is insufficient to meet the HPO obligations, then the Distribution Licensee would have to buy the additional hydro power to meet its HPO obligations or may have to buy the corresponding amount of Renewable Energy Certificate corresponding to Hydro Power.*

*(d) The above HPO trajectory shall be trued up on an annual basis depending on the revised commissioning schedule of Hydro projects.*

*(e) Hydro power imported from outside India shall not be considered for meeting HPO.*

*(f) Any shortfall remaining in achievement of ‘Other RPO’ category in a particular year can be met with either the excess energy consumed from WPPs, commissioned after 31<sup>st</sup> March 2022 beyond ‘Wind RPO’ for that year or with excess energy consumed from eligible Hydro Power Projects (including PSPs) and Small Hydro Projects (SHPs), commissioned after 8<sup>th</sup> March 2019 beyond ‘HPO’ for that*

year or partly from both. Further, any shortfall in achievement of 'Wind RPO' in a particular year can be met with excess energy consumed from Hydro Power Plants, which is in excess of 'HPO' for that year and vice versa.

- (g) The following percentage of total energy consumed shall be renewable energy alongwith/through storage.

FY	Storage (on Energy basis)
2023-24	1.0%
2024-25	1.5%
2025-26	2.0%
2026-27	2.5%
2027-28	3.0%
2028-29	3.5%
2029-30	4.0%

- (h) The Energy Storage Obligation in para (i) above shall be calculated in energy terms as a percentage of total consumption of electricity and shall be treated as fulfilled only when at least 85% of the total energy stored in the Energy Storage System (ESS), on an annual basis, is procured from renewable energy sources :

Provided that in case an Obligated Entity fails to meet its RPPO in this regard for any year, a quantum equivalent to the percentage as may be fixed by the Central Commission for such purpose, or in case no such % has been fixed, at 200%, of such shortfall for that year shall be added to the RPPOs of that Obligated Entity for that year and the quantum so added shall be further apportioned to various categories under Table -1 in the ratio of RPPOs for each category in respect of obligated entity for the relevant year.

**Illustration:** If the consumption of an Obligated Entity for the year 2023-24 is 1000 MU, its obligation under Para-(i) above for that year shall be 10 MUs. Depending on the quantum of energy actually met from the ESS by the Obligated Entity for that year, the adjustment shall be made on the following lines:-

Scenario-I, if the energy actually met from ESS by that Obligated Entity for that year equal or exceed the RPPOs under Para (i) of this Schedule.

Item	Description	Wind RPO (MUs)	HPO (MUs)	Other RPOs (MUs)	Total RPOs (MUs)
(I)	RPO for the Obligated Entity for 2023-24 for consumption of 1000 MUs as per Table-1	16	6.6	248.2	270.8
(II)	RPO from ESO included in item (I)	10A	10B	10C	10
(III)	If the energy actually met by that Obligated Entity from	12A*	12B*	12C*	12

	ESS for that year is 12 MUs (i.e. equal to or more than the RPO under Para (i) of this Schedule).				
(IV)	Net RPPOs to be met under Table-1 after adjustment of RPOs met from ESOs if there is no shortfall under item (IV) above [Item (I)-(III)]	16-12A	6.6-12B	248.2-12C	270.8-12
Scenario-II, if the RPPOs under Para (i) of this Schedule are not fully met and an Obligated Entity meets such RPPOs to the extent of 6MUs only against the said RPPO.					
(I)	RPO for the Obligated Entity for 2023-24 for consumption of 1000 MUs as per Table -1	16	6.6	248.2	270.8
(II)	RPO from ESO included in item (I)	10A	10B	10C	10
(III)	RPOs fulfilled from ESS by that Obligated Entity is 6 MUs (i.e. less than the RPO under para (i) of this Schedule).	6A*	6B*	6C*	6
(IV)	Adjustment on account of shortfall, if any, in meeting RPPOs from ESOs under para (I) of this schedule i.e. 200% of the shortfall.	8A	8B	8C	8
(V)	The RPPOs to be met under Table-1 of the Schedule including energy actually met from ESS after adjustment of the shortfall in RPPOs under Para (i) of this Schedule [Item (I)-(II)+(IV)]	16-2A	6.6-2B	248.2-2C	270.8-2

Where  $A = 16/270.8$

$B = 6.6/270.8$

$C = 248.2/270.8$

$A+B+C=1$

*Notes: (a) In case the energy actually met from ESS by an Obligated Entity for a year can be segregated into three categories of RPPOs based on documentary evidence, such segregation shall be done based on the such evidence, instead of proportionate adjustment as per item (III) under each of the two scenarios.*

*(b) The values of A, B and C, as given above, are based on the category wise RPPOs in respect of the year 2023-24 as per table-I. The values for the other years shall vary based on the category wise RPPOs applicable for respective years. Total (i.e. A+B+C) shall however always be equal to one.*

*(c) The RPPOs as per item (IV) in Scenario-I and item (V) in Scenario-II are to be met in addition to the energy actual consumed from ESS as per item (III) under both the Scenarios.”*

*(i) The Energy Storage Obligation to the extent of energy stored from RE sources shall be considered as a part of fulfillment of the total RPO as mentioned in Table-1 above.*

*(j) Minimum percentage for Renewable Power Purchase Obligation for each category mentioned in Table-1 and para (i) of this Schedule shall have to be met*

separately subject to the conditions specified in the Regulations and this Schedule.

(k) The provisions contained in this Schedule shall, unless revised earlier, be applicable in respect of the period upto 31<sup>st</sup> March, 2030:

*Provided that in case the provisions for the period beyond 31<sup>st</sup> March, 2030 are not specified before the said date, the provisions relating to the year 2029-2030 shall continue to be applicable till the issuance of notification of such provisions for that period.”*

16. The Regulation 5 of the RPO Regulations, 2023 provides that the Certificates issued under the Central Regulations i.e. CERC REC Regulations, 2022 shall be the valid instruments for the discharge of the mandatory obligations, as set out in the RPO Regulations, 2023 for the Obligated Entities, to purchase electricity from renewable energy sources.

17. The Schedule appended to the above Regulations pertaining to the year 2023-24 provides for minimum percentage for Renewable Power Purchase Obligations as mentioned below:

Year	Minimum Quantum of Purchase in percentage from renewable sources of total consumption			
	Wind RPO	HPO	Other RPO	Total RPO
2023-24	1.60%	0.66%	24.82%	27.08%

(i) The percentage of total energy consumed shall be renewable energy alongwith/through storage.

FY	Storage (on Energy basis)
2023-24	1.0%

(ii) The Energy Storage Obligation in Para (i) above shall be calculated in energy terms as a percentage of total consumption of electricity and shall be treated as fulfilled only when at least 85% of the total energy stored in the Energy Storage System (ESS), on an annual basis, is procured from renewable energy sources :

Provided that in case an Obligated Entity fails to meet its RPPO in this regard for any year, a quantum equivalent to the percentage as may be fixed by the Central Commission for such purpose, or in case no such % has been fixed, at 200%, of such shortfall for that year shall be added to the RPPOs of that Obligated Entity for that year and the quantum so added shall be further apportioned to various categories under Table-1 in the ratio of RPPOs for each category in respect of obligated entity for the relevant year.

18. Further, Regulation 10 of the CERC REC Regulations, 2022 lays down the conditions for issuance of Renewable Energy Certificates and Regulation 16 of the said Regulations provides for issuance of detail procedure in this regard by the Central Agency i.e. the National Load Dispatch Centre (NLDC) and the same stand issued by the Central Agency (NLDC).

19. The Commission has designated the “Directorate of Energy”, (Respondent No. 1), as an authority created under the administrative

control of the Government of Himachal Pradesh, as the State Agency for the purposes of the RPO Regulations and the State Agency has to undertake the functions under RPO Regulations, 2023.

20. On careful perusal of the above Regulations and data supplied by the Petitioner and the Respondents, the Quantification of Consumption and the targets of Wind RPO, HPO, Other RPO and ESO shall be as under:-

(i) The HPSEBL has calculated the total consumption for computing the RPOs as per the RPO Regulations, 2023 as 13034.989 MUs in their Petition. On careful analysis, the Commission finds that the consumption worked out by the HPSEBL has minor deviation and accordingly, the surpluses/deficit have been worked out in the succeeding paragraphs after meeting the RPO targets fixed by the Commission. The HPSEBL has also mentioned that it has procured the net energy quantum of 8632.445 MUs but on analysis of the data, the exact figure was found to be 8631.790 MUs.

(ii) After scrutiny of the data submitted by the Petitioner and the data submitted by the HPSLDC with their reply, the Commission finds deviation in the quantum of total consumption claimed by the Petitioner, which is to the tune of 6.503 MUs on account of revision of Deviation Settlement Account by the NRPC/ SLDC



etc. As per the RPO Regulations, 2023, the minimum quantum of purchases in percentage required to be met from the renewable energy sources of total consumption under each of the category for FY 2023-24 shall be as under:-

<b>Description</b>	<b>Wind RPO</b>	<b>HPO</b>	<b>Other RPO</b>	<b>ESO</b>
Total Consumption	13028.486 MUs	13028.486 MUs	13028.486 MUs	13028.486 MUs
%age RPPO	1.60%	0.66%	24.82%	1.00%
RPO target (in terms of energy)	208.456 MUs	85.988 MUs	3233.670 MUs	130.285 MUs

21. On the basis of data furnished and the provisions of Regulations, the Compliance of Wind RPO, HPO, other RPO and ESO shall be as under:-

**(A) Wind RPO, ESO and HPO**

(i) As per the record, the Petitioner has not generated/ purchased any wind power during FY 2023-24. The Petitioner has requested for adjustment of the shortfall in Wind RPO including ESO apportion i.e. shortfall of 216.154 MUs with excess power purchased from the eligible Hydro Generating Stations beyond HPO. The Commission is of the view that the said shortfall in meeting Wind RPO including apportioned ESO can be adjusted from the hydro projects energy eligible for the HPO as per the provisions of the RPO Regulations, 2023, therefore, the Commission has considered the prayer of the HPSEBL to allow adjustment of such shortfall of Wind RPO including

ESO apportion with the excess hydro energy eligible for HPO. The total deficit of 216.154 MUs of Wind RPOs including ESO apportion is thus, ordered to be adjusted against the surplus energy eligible for HPO.

(ii) The HPSEBL has purchased the power of 568.808 MUs from hydro projects commissioned after 08.03.2019 for fulfillment of Hydro Purchase Obligations. Thus, there is a surplus of 263.491 MUs after adjusting the HPO including ESO apportion of 89.163 MUs, as well as Wind RPO including ESO (216.154 MUs) which is eligible for issued of HPO certificates. Therefore, on the basis of the above discussion, the details of net shortfall/ surplus in respect of Wind RPO, ESO & HPO after adjustment of energy eligible for HPO against the Wind RPO including ESO & HPO comes out as under:-

<b>Details of WPO, ESO and HPO Compliance</b>			
<b>WPO Compliance for FY 2023-24:</b>			
Sr. No.	Description	Quantum as per Petition	Quantum considered for RPO compliance
1.	Energy consumption of HPSEBL	13034.989 MUs	13028.486 MUs
2.	Wind Purchase Obligations of HPSEBL (%)	1.60%	1.60%
3.	Wind Purchase Obligations of HPSEBL in terms of energy	208.560 MUs	208.456 MUs
4.	Adjustment on account of shortfall in meeting RPO from ESOs i.e. 200% of the shortfall	7.702 MUs	7.698 MUs
5.	Wind Purchase Obligation with ESO apportion	216.261 MUs	216.154 MUs
6.	Details of energy procured to meet WPO		
	(i) Wind Energy Procured from the projects commissioned after 31.03.2022	Nil	Nil
	(ii) Wind Energy consumed over and above 7% from the projects	Nil	Nil

	commissioned before 31.03.2022		
	(iii) Quantum of REC Procured (in terms of energy)	Nil	Nil
7.	Total procurement	Nil	Nil
8.	Net short fall	-216.261 MUs	-216.154 MUs
<b>HPO Compliance for FY 2023-24:</b>			
1	Energy consumption of HPSEBL	13034.989 MUs	13028.486 MUs
2.	Hydro Purchase Obligations of HPSEBL (%)	0.66%	0.66%
3.	Hydro Purchase Obligations of HPSEBL in terms of energy	86.031 MUs	85.988 MUs
4.	Adjustment on account of shortfall in meeting RPO from ESOs i.e. 200% of the shortfall	3.177 MUs	3.175 MUs
5.	Hydro Purchase Obligation with ESO apportion	89.208 MUs	89.163 MUs
6.	Details of energy procured to meet HPO		
	(i) Energy Procured from large and small HEPs commissioned on or after 08.03.2019	562.731 MUs	562.731 MUs
	(ii) Energy procured from GoHP against Free Power (excluding LADF) from large and small HEPs commissioned on or after 08.03.2019.	6.077 MUs	6.077 MUs
	(iii) Quantum of REC Procured (in terms of energy)	Nil	Nil
7.	Total procurement	568. 808 MUs	568. 808 MUs
8.	surplus (+)/ short fall (-)	+ 479.600 MUs	+479.644 MUs
9.	Net surplus after adjusting the balance shortfall in Wind RPO	479.600-216.261= +263.338 MUs	479.644-216.154= +263.491 MUs

**(B) Other Renewable Purchase Obligations (Other RPO):-**

(i) The HPSEBL has purchased 8631.790 MUs of power from the hydro projects commissioned before 08.03.2019 and from the Solar PV sources for meeting the other RPO compliance.

(ii) The record also shows that the Petitioner has not considered the renewable energy sold through exchanges i.e. to the tune of 0.606 MUs which is required to be deducted from the

quantum claimed for the certificates. The Commission has, therefore, considered the same while computing the other renewable power purchase obligations compliance.

(iii) From the detailed analysis of the Petition and the record including the replies of the parties, there is no shortfall and the Petitioner is in surplus in respect of other Renewable Power Purchase Obligations during FY2023-24 which is depicted in the table given below:-

<b>Details of 'Other RPO' Compliance for FY 2023-24</b>			
Sr. No.	Description	Quantum as per Petition	Quantum considered for RPO compliance
1.	Energy consumption of HPSEBL	13034.989 MUs	13028.486 MUs
2.	Other Renewable Purchase Obligations of HPSEBL (%)	24.82%	24.82%
3.	Other Renewable Purchase Obligations of HPSEBL in terms of energy	3235.284 MUs	3233.670 MUs
4.	Adjustment on account of shortfall in meeting RPO from ESOs i.e. 200% of the shortfall	119.471 MUs	119.412 MUs
5.	Other Renewable Purchase Obligation with ESO apportion	3354.756 MUs	3353.082 MUs
6.	Details of energy procured to meet 'Other RPO'		
	(i) Energy Procured from HEPs commissioned before 08.03.2019.	6389.276 MUs	6389.276 MUs
	(ii) Energy Procured against GoHP Free Power from HEPs commissioned before 08.03.2019.	497.869 MUs	497.869 MUs
	(iii) Generation from Own Projects of HPSEBL (excluding GoHP Free Power)	1602.908 MUs	1602.908 MUs
	(iv) Energy Procured from Grid Mounted Solar PV Projects	123.701 MUs	123.701 MUs
	(v) Energy Generated by Solar Rooftop Plants installed in the State	17.379 MUs	17.379 MUs
	(vi) Renewable Energy procured through Exchanges GDAM/ GTAM	0.658 MUs	0.658 MUs
	(vii) Quantum of REC Procured (in	Nil	Nil

	terms of energy)		
5.	Total procurement	8631.790 MUs	8631.790 MUs
6.	Renewable Energy sold through Exchange(s) GDAM/ GTAM	-----	0.606 MUs
7.	Surplus (+)/ short fall (-)	+ 5277.035 MUs	+ 5278.102 MUs

22. Based on the computation as mentioned above, the Commission has considered the prayer to allow the HPSEBL to treat the energy quantum i.e. 5278.102 MUs as surplus and eligible for recommendation for the issuance of RECs under 'Other RPO' category after adjusting the renewable energy i.e. 0.606 MUs sold through IEX (GDAM/ GTAM).

### **FINAL ORDER**

23. In view of the above, the Petition succeeds and allowed. It is held that the HPSEBL is compliant for Wind RPO (after adjustment of HPO energy), HPO and Other RPOs as per the trajectory specified by the Commission for FY 2023-24. The HPSEBL has procured RE power in excess of the obligations in the relevant year 2023-24 and, therefore, the HPSEBL is entitled for the recommendation for issuance of RECs for excess energy procured by the HPSEBL as per the quantum as mentioned above. The requisite recommendation for issuance of RECs, on Format 3.5, devised under Procedure for Implementation of REC Mechanism by the Central Agency is ordered to be issued accordingly.

24. The HPSEBL is directed to claim the HPO certificate with multiplying factor specified in the CERC REC Regulations, 2022 for the

hydro projects commissioned after the commencement of the CERC REC Regulations, 2022 i.e. 05.12.2022.

25. It is made clear that the income realized from the sale of RECs by the Petitioner will be adjusted in its True-up for retail business. The Petitioner is directed to file quarterly status report of RPPO compliance to the State Agency (the DoE) for expeditious monitoring and facilitating requisite action by the State Agency in a time bound manner.

26. The Petition is accordingly disposed off.

The file after needful be consigned to records.

**Announced:**

**19.06.2024**

**Sd/-**  
(Shashi Kant Joshi)  
**Member**

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