



## **Bihar Electricity Regulatory Commission**

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### **Consultative paper on the proposal for 4<sup>th</sup> amendment in the BERC (Renewable Purchase Obligation, its Compliance and REC Framework Implementation) Regulations, 2010**

In compliance with the provisions under section 61, 66, 86(1(e) and 181, of the Electricity Act, 2003 the Commission has notified BERC (Renewable Purchase Obligation, its compliance and REC Framework Implementation) Regulations, 2010 vide notification no. 05, dated 16.11.2010 which was published in Bihar Gazette vide No. 753 dated 18.11.2010.

Subsequently, in view of amendment in Tariff Policy vide Ministry of Power resolution dt.- 20.01.2011, the commission has notified first amendment to the principal Regulations on dated 07.09.2012 to prescribe solar-specific RPO.

Subsequently, the Ministry of power, Government of India has notified the Revised Tariff Policy resolution vide gazette notification dated 28.01.2016 wherein clause 6.4(1) of the tariff policy provides as follows:

*"Within the percentage so made applicable, to start with, the SERCs shall also reserve a minimum percentage for purchase of solar energy from the date of notification of the policy which shall be such that it reaches 8% of total consumption of energy excluding hydro power, by March 2022 or as notified by the Central Government from time to time".*

Accordingly, Commission notified Second amendment to the principal Regulations in the form of the BERC (Renewable Purchase Obligation its compliance and REC Framework Implementation)(2<sup>nd</sup> Amendment) Regulations, 2017 dated 30.03.2017.

Further, Ministry of Power, Govt. of India, vide its letter dated 14.06.2018 communicated the long term growth trajectory of Renewable

Purchase Obligations (RPOs) for Solar and Non-Solar for a period of three years i.e. 2019-20 to 2021-22.

In view of MoP letter dated 14.06.2018, the Commission initiated Suo-motu proceeding for 3rd amendment to Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation) Regulations, 2010. After examining the views of the SBPDCL, NBPDC and the nodal agency BRENDA about the long term growth trajectory of Renewable Purchase Obligations (RPOs) for Solar and Non-Solar for a period of three years i.e. 2019-20 to 2021-22, the Commission decided to retain original RPO trajectory up to FY 2021-22 as specified in BEREC (Renewable Purchase Obligation its compliance and REC Framework Implementation) (2<sup>nd</sup> Amendment) Regulations, 2017.

Subsequent to this, the Commission received a letter bearing no. 7/10/2017-EFM, dated 04.06.2019 from the Ministry of New and Renewable Energy (MNRE) wherein, the MNRE pointed out that

*“SERCs were requested to notify RPO for their respective States up to the year 2021-22 in line with the Ministry of Power order no. 23/03/2016-R&R dated 14.06.2018. However, it has been observed that your State has notified RPO trajectory that is not aligned with that notified by the Ministry of Power. Aligning RPO trajectory will send right signals to the state government and the obligated entities for accelerating renewable energy deployment.”*

Further, Ministry of Power, Govt. of India, through its order no. 09/13/2021-RCM dated 22.07.2022 has specified separate Wind RPO, HPO and other RPO within the overall RPO target for the FY 2022-23 to FY 2029-30.

In view of above, the Commission has decided to adopt the RPO target as specified by the Ministry of Power through its order no. 09/13/2021-RCM dated 22.07.2022 for the FY 2022-23 to FY 2029-30, including introduction of a separate hydro purchase obligation (HPO) as recommended previously by the ministry through MoP Notification F No. 15/2/2016-H-I(Pt.) dated 08.03.2019.

In line with the directions from MoP, the Commission proposes to specify separate Wind RPO, HPO and other RPO within the overall RPO target.

Provided that Wind RPO shall be met through energy produced from wind power projects commissioned after 31<sup>st</sup> March 2022; HPO shall be met only by energy produced from Large Hydro Projects (including pump storage plants) commissioned after 8<sup>th</sup> March 2019; other RPO target may be met by energy produced from any RE power project not qualifying for meeting Wind RPO and HPO. Further, as the directives of the MoP, the Commission proposes to specify separate Energy Storage Obligation for the energy consumed from solar/wind along with /through storage. The Energy Storage obligation to the extent of energy stored from RE sources shall be considered as part of fulfilment of the total RPO.

Recently, the Ministry of Power notified the Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 on 06.06.2022, wherein the obligated entity, may elect to generate, purchase and consume renewable energy to meet their Renewable Purchase obligation. The appropriate provisions related to RPO as specified in the Green Energy Open Access Rules 2022 has been proposed to be incorporated in the 4<sup>th</sup> amendment to RPO Regulations also.

In view of above developments, the Commission initiates the Suo-motu proceeding for 4<sup>th</sup> amendment in Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation) Regulations, 2010. The Draft Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation) (4<sup>th</sup>Amendment) Regulations, 2022, is uploaded on the Commission's website [www.berc.co.in](http://www.berc.co.in).

Comments/ Suggestions/ Objections from general public and all stakeholders are invited on or before **12.09. 2022** addressed to The Secretary, Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Jawahar Lal Nehru Marg, Patna-800021. Commission shall conduct hearing on **27.09.2022** at 11.30 AM in the Court Room of the Commission office.

Sd/-  
**Secretary**



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### **Draft**

Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation) (4<sup>th</sup> Amendment) Regulations, 2022

### **Notification**

No. Case No. \_\_\_\_\_: — In exercise of powers conferred under section 61, 66, 86(1) (e) read with Section 181 (2) (zd) of the Electricity Act, 2003 and all other powers enabling the Commission in this behalf, the Bihar Electricity Regulatory Commission hereby amends the Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation) Regulations, 2010 which was originally issued vide no. BERC-Reg1-01/10-05 dated 16<sup>th</sup> November, 2010.

#### **1. Short title, extent and commencement-**

- 1.1. These Regulations may be called the “*Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation)(4<sup>th</sup> Amendment) Regulation 2022*”.
- 1.2. These Regulations extend to the whole of the State of Bihar.
- 1.3. These Regulations shall come into force on the date of their publication in the official Gazette.

## 2. Amendment in Regulation 2 (Definition):

2.1. Following words shall be added at the end of Regulation 2.1(e):

*“and the subsequent amendments thereof;”*

2.2. Insertion of a new Regulation 2.1(ia):

After Regulation 2.1(i), new regulation ‘(ia)’ shall be added hereunder:

*“2.1(ia) “Green energy” means the electrical energy from renewable sources of energy including hydro and storage (if the storage uses renewable energy) or any other technology as may be notified by the Government of India from time to time and shall also include any mechanism that utilizes green energy to replace fossil fuels including production of green hydrogen or green ammonia”*

2.3. Insertion of a new Regulation 2.1 (na):

After Regulation ‘2.1(n)’, a new Regulation ‘2.1(na)’ shall be added hereunder:

*“2.1 (na) ‘Prosumer’ means a person who consumes electricity from the grid and can also inject electricity into the grid for distribution licensee, using same point of supply;”*

## 3. Amendment in Regulation 4 (Renewable Purchase Obligation):

3.1. Substitution of Regulation 4.1:

Regulation 4.1 shall be substituted by the following:

*“4.1. “Every Obligated Entity shall at-least purchase source wise energy from Renewable Sources as specified below:-*

***Minimum quantum of electricity to be procured from Renewable Sources by Obligated Entity as percentage of total consumption***

<b>Financial Year</b>	<b>Wind RPO</b>	<b>Hydro Power Obligation (HPO)</b>	<b>Other RPO</b>	<b>Total RPO</b>
<b>2022-23</b>	0.81%	0.35%	23.44%	24.61%
<b>2023-24</b>	1.60%	0.66%	24.81%	27.08%
<b>2024-25</b>	2.46%	1.08%	26.37%	29.91%
<b>2025-26</b>	3.36%	1.48%	28.17%	33.01%
<b>2026-27</b>	4.29%	1.80%	29.86%	35.95%
<b>2027-28</b>	5.23%	2.15%	31.43%	38.81%
<b>2028-29</b>	6.16%	2.51%	32.69%	41.36%
<b>2029-30</b>	6.94%	2.82%	33.57%	43.33%

*The Obligation will be on total consumption of electricity by an obligated entity,  
(a) Wind RPO Shall be met only by energy produced from Wind Power Projects (WPPs) commissioned after 31 March 2022*

*(b) HPO shall be met only by energy produced from LHPs (including PSPs), commissioned after 8<sup>th</sup> March 2019.*

*(c) Other RPO may be met by energy produced from any RE based /green energy based power project not mentioned in (a) and (b) above.*

*Provided that, HPO obligation of the state/DISCOM may be met out of the free power being provided to the state of Bihar from Large Hydro Plants(LHPs) (including Pump Storage Plants (PSPs)), commissioned after 8<sup>th</sup> March, 2019 as per agreement at that point of time excluding the contribution towards Local Area Development Fund (LADF), if consumed within the state/DISCOM. Free power (not that contributed for Local Area Development) shall be eligible for HPO benefit.*

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

*Provided that Hydro power imported from outside India shall not be considered for meeting HPO”*

*Further, in case of 'Other RPO', any shortfall remaining in achievement of 'Other RPO' category in a particular year can be met with either excess energy consumed from wind power projects, commissioned after 31<sup>st</sup> March 2022 beyond 'Wind RPO' for that year or with, excess energy consumed from eligible LHPs (including PSPs), 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.*

*Provided that Renewable Energy purchased through bundled power shall qualify for Renewable Purchase Obligation compliance to the extent of Renewable Energy content in the bundled power.*

*Provided further that Distribution Licensee shall be eligible to utilize the renewable energy generated from prosumers supplying power to such Licensee under the Gross Metering, Net Billing and Net Metering arrangement as the case may be towards meeting the RPO compliance, provided that the prosumer should not be a obligated entity under these Regulations.*

*Provided further that Distribution Licensee shall compulsorily procure 100% power generated from waste to Energy plants in the state.*

*Provided that Commission may review minimum percentage of compliance specified in the above Regulations depending upon prevailing situation in succeeding years.*

### **3.2. Insertion of Regulation 4.1 (a):**

Regulation 4.1(a) shall be added hereunder

*"The following percentage of total energy consumed shall be solar/wind energy along with/through storage:*

<b>Financial Year</b>	<b>Storage (on Energy basis)</b>
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%

*Provided that Energy Storage Obligation 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 total energy stored in the Energy Storage System (ESS), on an annual basis, is procured from renewable energy sources.*

*Provided that, the Energy Storage Obligation to the extent of energy stored from RE source shall be considered as a part of fulfillment of total RPO. The Energy Storage Obligation shall be reviewed periodically considering the commissioning/ operation of PSP capacity, to accommodate any new promising commercially viable Energy Storage technologies and also in cost of Battery Energy Storage System (BESS).*

### 3.3. Substitution of Clause No. 4.2:

Regulation 4.2 shall be substituted by the following:

*There shall be an uniform renewable purchase obligation, on all obligated entities in area of a distribution licensee. Any obligated entity, may elect to generate, purchase and consume renewable energy to meet their obligation by one or more of the following methods: -*

- (A) *Own Generation from renewable energy sources: –There shall not be any capacity limit for installation of power plants from renewable energy sources, by obligated entities for their own consumption and such plants may be set up at any location in India and power shall be transmitted by using open access:*



*Provided that the generating plant may be set up by the entity itself or by a developer with which the entity enters into a power purchase agreement.*

*(B) By procuring Renewable Energy through Open Access from any Developer either directly or through a trading licensee or through power markets.*

*Explanation: (1) Developer means the generating company who generate electrical energy from renewable sources of energy. (2) Trading Licensee means a person who has been granted a licensee by appropriate commission, for purchase of electricity for resale thereof.*

*(C) By purchasing of renewable energy certificates in accordance with the applicable regulations.*

*(D) Purchase of green hydrogen or green ammonia; —the obligated entity can also meet 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 the green hydrogen or green ammonia produced from one MWh of electricity from the renewable sources or its multiples and norms in this regard shall be notified by the CERC”*

#### **4. Amendment in Regulation 6 (State Agency):**

##### **4.1. Substitution of Regulation 6.3:**

Regulation 6.3 shall be substituted by the following:

*“6.3. The State Agency shall submit half yearly status with respect to compliance of RPO by the obligated entities to the Commission within 15th of the ensuing month after completion of 1<sup>st</sup> and 2<sup>nd</sup> half of Financial year in the format as annexed as [Annexure-I](#) to these Regulations and may suggest appropriate action to the Commission if required for compliance of the renewable purchase obligation.”*

#### **5. Amendment in Regulation 11 (Over riding effect):**

Regulation 11 shall be substituted by the following:

*“Notwithstanding anything contained contrary to-*

- a) The BERC (Terms and Condition for Determination of Tariff) Regulation, 2007;*
- b) The BERC (Multi Year Distribution Tariff) Regulation, 2018;*
- c) The BERC (Terms and Conditions of Intra-State Open Access) Regulation 2018;*
- d) The BERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulation 2022 and any other relevant regulations notified by the Commission under section 181 of the Electricity Act 2003; these regulations will have overriding effect.”*

**By Order of the Commission  
Sd/-  
Secretary**

### ANNEXURE I

Half yearly Formats to be submitted by State Agency to the Commission:

Name of the Obligated Entity:				
S. N.	Particulars	Formula	Unit	Value
1.	Energy sale excluding inter-state sale		MU	
2.	Total RPO Target		%	
3.	Total Renewable Energy Purchase requirement	1*2	MU	
4.	HPO Target		%	
5.	Hydro Power Purchase requirement	1*4	MU	
6.	WPO Target		%	
7.	Wind Power Purchase requirement	1*6	MU	
8.	Other RPO Target		%	
9.	Other RE Purchase requirement	1*8	MU	
10.	Energy Storage Purchase Obligation target		%	
11.	Energy Storage Purchase Requirement	1*10	MU	
12.	Actual Hydro Power Purchase		MU	
13.	Surplus / Deficit in Hydro Power Purchase (+/-)	12-5	MU	
14.	HPO Achievement	12/1	%	
15.	Wind Power Purchase		MU	
16.	Surplus / Deficit in Wind Power Purchase (+/-)	15-7	MU	
17.	WPO Achievement	15/1	%	

Name of the Obligated Entity:				
S. N.	Particulars	Formula	Unit	Value
18.	Other RE purchase	a+b+c+d+e	MU	
a.	Co-generation		MU	
b.	Small Hydro		MU	
c.	Biomass		MU	
d.	Solar		MU	
e.	Others		MU	
19.	Surplus / Deficit in Other RE purchase (+/-)	18-9	MU	
20.	Other RPO Achievement	18/1	%	
21.	Energy Storage Purchase		MU	
22.	Surplus / Deficit in Energy storage purchase (+/-)	21-11	MU	
23.	Energy Storage Purchase achievement	21/1	%	
24.	Total Renewable Energy Purchase Achievement	12+15+18+21	MU	
25.	Total RPO Achievement	24/1	%	