



Bihar Electricity Regulatory Commission

Vidyut Bhawan-II, J.L. Nehru Marg, Patna 800 021

Case No. SMP- 12/2022

In the matter of:

Suo-Motu Proceeding for 4th Amendment of BERC (Renewable Purchase (Renewable Purchase Obligation, its compliance and REC Framework Implementation) Regulations 2010.

Quoram:

1. Shishir Sinha - Chairman
2. S.C. Chourasia- Member

Appearance:

Sl. No.	Name	Organization
1.	Shri. Deepak Kumar (CE/COMM)	NBPDC
2.	Shri. Jayant Kumar Dubey (ESE)	
3.	Shri. Purushottam Prasad (CE/COMM)	SBPDCL
4.	Shri Abhay Kumar (AEE)	
5.	Shri. Manoj Kumar (ESE/PMC)	BSPHCL
6.	Shri. Amit Kumar (AEE/PMC)	
7.	Shri Pankaj Kumar Pandey (E&R)	BREDA
8.	Shri Suryakanta (GM)	Dalmia Cement Bharat Ltd.
9.	Shri PiyushRanjan (Advocate)	Hari Nagar Sugar Mill

ORDER

Date: 27.06.2023

1. Introduction:

- 1.1.** 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 published in Bihar Gazette vide No. 753 dated 18.11.2010.
- 1.2.** Subsequently, in view of amendment in Tariff Policy vide Ministry of Power resolution dated - 20.01.2011, the commission notified first amendment to the principal Regulations on 07.09.2012 to prescribe solar-specific RPO.
- 1.3.** Further, the Ministry of power, Government of India 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”.*
- 1.4.** Accordingly, Commission notified Second amendment to the principal Regulations in the form of the BERC (Renewable Purchase Obligation its compliance and REC Framework Implementation)(2nd Amendment) Regulations, 2017 dated 30.03.2017.

- 1.5.** Thereafter, the 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.
- 1.6.** 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, NBPDCCL and the nodal agency BREDCA about the long-term growth trajectory of Renewable Purchase Obligations (RPOs) for Solar and Non-Solar for a period of three years i.e. from 2019-20 to 2021-22, the Commission decided to retain original RPO trajectory up to FY 2021-22 as specified in BERC (Renewable Purchase Obligation its compliance and REC Framework Implementation) (2nd Amendment) Regulations, 2017.
- 1.7.** 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.”

- 1.8.** 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.
- 1.9.** In view of above, the Commission 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.
- 1.10.** 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 31st March 2022; HPO shall be met only by energy produced from Large Hydro Projects (including pump storage plants) commissioned after 8th 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.
- 1.11.** 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, was given liberty to 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 4th amendment to RPO Regulations also.

In view of above developments, the Commission initiated the Suo-motu proceeding for 4th amendment of Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation) Regulations, 2010. Accordingly, the draft Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation) (4th Amendment) Regulations, 2022 was uploaded on the Commission's website www.berc.co.in.

- 1.12.** Comments/ Suggestions/ Objections from general public and all stakeholders were invited on or before 12.09.2022 addressed to The Secretary, Bihar Electricity Regulatory Commission, Vidyut Bhawan-II, Jawahar Lal Nehru Marg, Patna-800021.

2. Hearing:

- 2.1.** The matter was first heard on 27.09.2022. During the hearing the Indian Energy Exchange (IEX), M/s Dalmia Cement Bharat Ltd. and DISCOM submitted their Comments/ Suggestion/ Objection. However, Nodal Agency BRED A and other obligated entities had not submitted any Comments/ Suggestion/ Objection till that date. In view above BRED A and other obligated entities were directed to submit their Comments/ Suggestion/ Objection on the draft Regulations.

- 2.2.** The next hearing was scheduled on 14.10.2022, by which date BRED A, M/s Harinagar Sugar Mill submitted their Comments/ Suggestion/ Objection. M/s Dalmia Cement submitted additional

Comments/ Suggestion/ Objection also. The Commission decided to reserve the order by giving 10 more days for the interested stakeholders to file additional Comments/ Suggestion/ Objection, if any. However, no further comment received by the Commission.

3. Comments/ Suggestion / Objections by Stakeholder& Commission's analysis

3.1. As per Draft Regulation:

Sl. No.	As per draft regulations	Comment's by stakeholders	Commission's view																				
1.	<p>4.1 “Every Obligated Entity shall at-least purchase source wise energy from Renewable Sources as specified below: -</p> <p>Minimum quantum of electricity to be procured from Renewable Sources by Obligated Entity as percentage of total consumption</p> <table><tr><td>FY</td><td>Win d RPO</td><td>HPO</td><td>Other RPO</td><td>Total RPO</td></tr><tr><td>2022</td><td>0.81</td><td>0.35</td><td>23.44</td><td>24.61</td></tr><tr><td>-23</td><td>%</td><td>%</td><td>%</td><td>%</td></tr><tr><td>2023</td><td>1.60</td><td>0.66</td><td>24.81</td><td>27.08</td></tr></table>	FY	Win d RPO	HPO	Other RPO	Total RPO	2022	0.81	0.35	23.44	24.61	-23	%	%	%	%	2023	1.60	0.66	24.81	27.08	<p>➤ <u>DISCOM:</u> -</p> <p>“4.1 “Every Obligated Entity shall at-least purchase source wise energy from Renewable Sources as specified below: -</p> <p>Minimum quantum of electricity to be procured from Renewable Sources by Obligated Entity as percentage of total consumption</p>	<p>The Commission is not inclined to revise the RPO targets as proposed by DISCOM at this stage.</p> <p>However, the Commission agree to make necessary changes in regulation 4.1 of the draft RPO Regulations in line with the MoP corrigendum on RPO and Energy storage obligation trajectory dated 19.09.2022.</p> <p>4.1 “Every Obligated Entity shall at-least purchase source wise energy from Renewable Sources as specified below: -</p> <p>Minimum quantum of electricity to be procured from Renewable Sources by Obligated Entity as percentage of total</p>
FY	Win d RPO	HPO	Other RPO	Total RPO																			
2022	0.81	0.35	23.44	24.61																			
-23	%	%	%	%																			
2023	1.60	0.66	24.81	27.08																			

	-24	%	%	%	%	FY	Wind	HPO	Other	Total	RPO	Assumption								
	2024	2.46	1.08	26.37	29.91		RPO		RPO											
	-25	%	%	%	%	2022-23	0.81%	0.35%	20.28%	21.44%	FY	Win	HPO	Other	Total					
	2025	3.36	1.48	28.17	33.01	2023-24	0.89%	0.42%	21.29%	22.57%	d			RPO	RPO					
	-26	%	%	%	%	2024-25	0.98%	0.47%	22.36%	23.76%	RPO									
	2026	4.29	1.80	29.86	35.95	2025-26	1.08%	0.51%	23.48%	25.02%	2022	0.81	0.35	23.44	24.61					
	-27	%	%	%	%	2026-27	1.19%	0.56%	24.65%	26.35%	2023	%	%	%	%					
	2027	5.23	2.15	31.43	38.81	2027-28	1.30%	0.56%	25.88%	27.75%	2023	1.60	0.66	24.81	27.08					
	-28	%	%	%	%	2028-29	1.43%	0.62%	27.18%	29.23%	2024	%	%	%	%					
	2028	6.16	2.51	32.69	41.36	2029-30	1.58%	0.68%	28.54%	30.80%	2024	2.46	1.08	26.37	29.91					
	-29	%	%	%	%	a) Wind RPO Shall be met only by energy produced from Wind Power Projects (WPPs) commissioned after 31 March 2021 and the wind energy consumed over and above 7% from WPPs commissioned till 31st March 2021. b) HPO shall be met only by energy produced from LHPs (including PSPs), Commissioned after 8 th					-25	%	%	%	%					
	2029	6.94	2.82	33.57	43.33						2025	3.36	1.48	28.17	33.01					
	-30	%	%	%	%						-26	%	%	%	%					
	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										2026	4.29	1.80	29.86	35.95					
											-27	%	%	%	%					
											2027	5.23	2.15	31.43	38.81					
											-28	%	%	%	%					

<p>produced from LHPs (including PSPs), Commissioned after 8th march 2019.</p> <p>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.</p> <p>Provided that, HPO obligation of the state/DISCOM may be..... met out of the free shall be eligible for HPO benefit.</p> <p>In case, the free power mentioned above insufficient to meet the HPO obligations..... Energy Certificate corresponding to Hydro Power.</p> <p>Provided that Hydro power imported from outside India shall not be considered for meeting HPO.</p>	<p>march 2019.</p> <p>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.Energy from all other HPPs including free power from HPPs commissioned before 8th March 2019 will be considered a part of ‘Other RPO’.</p> <p>Provided that, HPO obligation of the state/DISCOM may be..... met out of the free shall be eligible for HPO benefit.</p> <p>In case, the free power mentioned above insufficient to meet the HPO obligations..... Energy Certificate corresponding to Hydro Power.</p> <p>Provided that Hydro power imported from outside India shall not be considered for meeting HPO, however, the same shall be considered for meeting “Other RPO”.</p>	<table><tr><td>2028</td><td>6.16</td><td>2.51</td><td>32.69</td><td>41.36</td></tr><tr><td>-29</td><td>%</td><td>%</td><td>%</td><td>%</td></tr><tr><td>2029</td><td>6.94</td><td>2.82</td><td>33.57</td><td>43.33</td></tr><tr><td>-30</td><td>%</td><td>%</td><td>%</td><td>%</td></tr></table> <p>a) Wind RPO Shall be met only by energy produced from Wind Power Projects (WPPs) commissioned after 31 March 2022 and the wind energy consumed over and above 7% from WPPs commissioned till 31st March 2022.</p> <p>b) HPO shall be met only by energy produced from Hydro Power Projects (including PSPs and small hydro projects (SHPs), Commissioned after 8th march 2019.</p> <p>c) Other RPO may be met by energy produced from any RE based /green</p>	2028	6.16	2.51	32.69	41.36	-29	%	%	%	%	2029	6.94	2.82	33.57	43.33	-30	%	%	%	%
2028	6.16	2.51	32.69	41.36																		
-29	%	%	%	%																		
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-30	%	%	%	%																		

	<p>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 31st March 2022 beyond..... which is in excess of 'HPO' for that year vice versa.</p>	<p>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 31stMarch 2021 beyond..... which is in excess of 'HPO' for that year vice versa.”</p> <ul style="list-style-type: none"> • <u>Rationale: -</u> <p>Solar RPO, non-solar RPO and total RPO for FY 2021-22 as specified by the BERC is 8%, 9% and 17% respectively which it self is difficult to comply by both DISCOMs (NBPDC and SBPDCL) given that Bihar is not a RE rich state.</p> <p>Increasing the total RPO target from 17% to 24.61 % in the very next year is a very steep increment which is impractical and almost impossible for a State like Bihar to achieve in this short duration of next one year, half of</p>	<p>energy-based power project not mentioned in (a) and (b) above.</p> <p>Provided that, HPO obligation of the state/DISCOM may be met out of the free power being provided to the state of Bihar from all other HPPs including free power from HPPs commissioned before 8th 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</p> <p>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.</p>
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		<p>which is already is over. It may also be noted that Hon'ble BERC has carry forwarded the solar shortfall nearly to FY 2022-23 and sudden increase in total RPO of FY 2022-23 is impractical to achieve.</p> <p>So, the Other RPO for FY 2022-23 may be kept at 20.28% which is at 19% increment rate with respect to FY 2021-22 in line with the earlier RPO trajectory specified by Hon'ble Commission.</p> <p>Further, as shown below the RPO trajectory proposed for FY 2023-24 and onwards for Wind and HPO year on year increase of more than 20%, which is unjustified taking into consideration of the state specific conditions and socio economic conditions of the state of Bihar.</p>					
		FY	Wind RPO	y-o-y increase	HPO	y-o-y increase	

		2022-23	0.81%		0.35%		
		2023-24	1.60%	98%	0.66%	89%	
		2024-25	2.46%	54%	1.08%	64%	
		2025-26	3.36%	37%	1.48%	37%	
		2026-27	4.29%	28%	1.80%	22%	
		2027-28	5.23%	22%	2.15%	19%	
		2028-29	6.16%	18%	2.51%	17%	
		2029-30	6.94%	13%	2.82%	12%	
		<p>Given that the state of Bihar does not have any own Solar and Wind RE sources. It shall inhibit NBPDCCL and SBPDCL from fulfilling their proposed Other and Wind RPO target. Therefore, proposing such an aggressive Other RPO target of for Bihar DISCOMs is not rational. So, the Wind RPO and HPO for the FY 2023--24 and onwards may be allowed to increase at the rate of 10%. And the Other RPO for the subsequent FYs starting from FY 2023-24 may</p>					

		<p>be allowed to increase at the rate of 5%.</p> <p>The Bihar DISCOMs are consistently putting in their best efforts to fulfil the RPO targets as stipulated by the Commission. In order to achieve the RPO targets as determined by the BERC for FY 2021-22, the Bihar DISCOMs are already purchasing solar and non-solar power from SECI, PTC and NTPC. Further, BREDA had also issued the tender for 250 MW ground mounted solar power on behalf of Bihar DISCOMs for procurement of solar power through the competitive bidding route for which PPA has been signed and expected to commission in 4th quarter of FY 2023-24.</p> <p>The DISCOMs are also exploring the option to purchase BERC, however it has a huge financial implication on the stressed Bihar DISCOMs.</p> <p>So, the trajectory for 'Other RPO' for FY 2022-23 and onwards and for 'Wind RPO and HPO '</p>	
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		<p>for FY 2023-24 and onwards may be kept at as proposed by the DISCOMs. The "Wind RPO and HPO" for FY 2022-23 may be kept as proposed by the Hon'ble BERC.</p> <p>Secondly, the Bihar DISCOMs have recently tied PPAs for some Wind Power projects whose Commercial Operation Date is as follows:</p> <ol style="list-style-type: none"> 1. 12 MW on 01.04.2021 from SECI (Alfanar Energy Pvt Ltd.) 2. 300 MW on 24.09.2021 from SECI(Ostro Kannada Power Private Ltd). <p>So, such recently tied up power should be allowed to qualify for the compliance of Wind RPO. The Hon'ble BERC is kindly requested to make suitable modifications in the power projects qualified for Wind RPO as "Wind Power Projects (WPPs) commissioned after 31 March 2021".</p> <p>Further, as per Corrigendum issued by the MoP,</p>	
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		<p>the Wind energy consumed over and above 7% from WPPs commissioned till 31st March 2021, may also be considered under “Wind RPO”.</p> <p>Further, as per Corrigendum issued by the MoP the Energy from all other HPPs including free power from HPPs commissioned before 8th March 2019 will be considered as part of ‘Other RPO’.</p> <p>Further, it should be clarified that the Hydropower imported from outside India should be qualified under “Other RPO” category.</p> <p>➤ Harinagar Sugar Mill</p> <p>a) RPO from Wind Power Plant.</p> <p>Wind power plant is viable in coastal areas where there is adequate wind speed. Also the wind power cannot be a firm power. In Bihar there is no such power in our knowledge and as also there is no chance of coming upof</p>	
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		<p>wind power project in Bihar.</p> <p>Therefore, the RPO specified for wind power is to boost the industrialization in the States of coastal areas like Gujarat, Maharashtra, Tamil Nadu etc. In view of the above we propose that wind RPO should be maximum up to 1.0% by FY 2029-30.</p> <p>b) Hydro power plant</p> <p>The legal validity for considering Large Hydro Power Plant (LHPP) has been discussed under para 1 above.</p> <p>As far as the question of LHPP is concerned there is no such power project in Bihar and there is no possibility of coming up of such large Hydel Power Plant in Bihar. In Bihar the Hydel power plants are mostly on the run of the river.</p> <p>Therefore, in Bihar BERC should fix the RPO of only Mini and Micro hydro power upto 5</p>	
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		<p>MW capacity. So in BERC(RPO) Regulation the maximum RPO for Hydel should be 0.75% by FY 2029-30 with provision that if hydel is not be available the shortfall can be met by Bagasse Cogenplant and even thereafter a gap remains, then by Biomass power plant.</p> <p>c) RPO for others:-</p> <p>RPO proposed for others also includes the Solar generation, as a result thereof the RPO left for Bagasse, Biomass, Municipal Waste remains very negligible. Considering solar into the head others, is to provide facility to solar developer at the cost of Bagasse and Biomass plants, which will be fatal for development of agriculturist. Further the burning of surplus Bagasse and Biomass will enhance the pollution level.</p> <p>➤ Dalmia Cement Bharat Ltd.</p> <p>1. Relaxation to be given on fulfilment of Wind</p>	
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		<p>RPO for obligated entity under captive and open access user/consumer by procuring power from Wind Power Projects commissioned after 31st March 2022. Relaxation to be provided in meeting the above compliance from solar and/or non-solar energy or carry forward till such time REC are available in market. Manner in which has been allowed in State of Karnataka and Andhra Pradesh.</p> <p>2. Relaxation to be given on fulfilment of Hydro Power Obligation for obligated entity under captive and open access user/consumer to procure power from LHPS including PSP) commissioned after 8th March 2019. Relaxation to be provided in meeting the above compliance from solar and/or non-solar energy till such time REC are available in market as in the state of</p>	
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		<p>Karnataka and Andhra Pradesh (Annexure-2A and 28). Based on capacity of Hydro Gujarat state has also reduced Hydro RPO obligation.</p>	
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2.	<p>“4.1 (a)</p> <p>The following percentage of total energy consumed shall be solar/wind energy along with/ through storage:</p> <table><tr><th>Financial Year</th><th>Storage (on Energy basis)</th></tr><tr><td>2023- 24</td><td>1.0%</td></tr><tr><td>2024-25</td><td>1.5%</td></tr><tr><td>2025-26</td><td>2.0%</td></tr><tr><td>2026-27</td><td>2.5%</td></tr><tr><td>2027-28</td><td>3.0%</td></tr><tr><td>2028-29</td><td>3.5%</td></tr><tr><td>2029-30</td><td>4.0%</td></tr></table> <p>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.</p>	Financial Year	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%	<p>➤ DISCOM:</p> <p>“4.1 (a) The following percentage of total energy consumed shall be solar/wind energy along with/ through storage:</p> <table><tr><th>Financial Year</th><th>Storage (on Energy basis)</th></tr><tr><td>2023- 24</td><td>0.0%</td></tr><tr><td>2024-25</td><td>0.0%</td></tr><tr><td>2025-26</td><td>0.25%</td></tr><tr><td>2026-27</td><td>0.05%</td></tr><tr><td>2027-28</td><td>1.0%</td></tr><tr><td>2028-29</td><td>2.0%</td></tr><tr><td>2029-30</td><td>3.0%</td></tr></table> <p>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.</p> <p>Provided that, the Energy Storage Obligation to the extent of energy stored from RE source shall be</p>	Financial Year	Storage (on Energy basis)	2023- 24	0.0%	2024-25	0.0%	2025-26	0.25%	2026-27	0.05%	2027-28	1.0%	2028-29	2.0%	2029-30	3.0%	<p>Considering the nascent stage of development of energy storage technologies, the Commission decided to revise the energy storage obligation targets for FY 2023-24 & FY 2024-25 to 0.5% and 1%. The regulations 4.1(a) has been revised accordingly.</p> <p>4.1 (a)</p> <p>The following percentage of total energy consumed shall be solar/wind energy along with/ through storage:</p> <table><tr><th>Financial Year</th><th>Storage (on Energy basis)</th></tr><tr><td>2023- 24</td><td>0.5%</td></tr><tr><td>2024-25</td><td>1.0%</td></tr><tr><td>2025-26</td><td>2.0%</td></tr><tr><td>2026-27</td><td>2.5%</td></tr><tr><td>2027-28</td><td>3.0%</td></tr><tr><td>2028-29</td><td>3.5%</td></tr><tr><td>2029-30</td><td>4.0%</td></tr></table>	Financial Year	Storage (on Energy basis)	2023- 24	0.5%	2024-25	1.0%	2025-26	2.0%	2026-27	2.5%	2027-28	3.0%	2028-29	3.5%	2029-30	4.0%
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	<p><i>Provided that, the Energy Storage Obligation to the extent of energy stored from RE source shall be considered as a part of fulfilment of total RPO.</i></p> <p><i>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)."</i></p>	<p><i>considered as a part of fulfilment of total RPO.</i></p> <p><i>The Energy Storage Obligation shall be reviewed periodically considering the commissioning/ operation of PSP capacity, or any hardship faced by the Distribution Licensee to accommodate any new promising commercially viable Energy Storage technologies and also in cost of Battery Energy Storage System (BESS)."</i></p> <ul style="list-style-type: none"> • Rational: <p><i>The energy storage technologies are still in the nascent stage and state utilities across the nation are yet to adopt the large scale of utility size Battery Energy Storage System (BESS).</i></p> <p><i>Bihar has very limited potential for the achievement of RPO target due to issue involved in land availability and economics for RE plants and is completely dependent upon external source of power like NTPC, PTC, SECI etc. Thus, it is very difficult to achieve the proposed ESS</i></p>	<p><i>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.</i></p> <p><i>Provided that, the Energy Storage Obligation to the extent of energy stored from RE source shall be considered as a part of fulfilment of total RPO.</i></p> <p><i>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)."</i></p>
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		<p>obligation target, 85% of which is to be procured from RE sources, keeping into consideration available resources in the State.</p> <p>This is to bring into the kind knowledge of the Hon'ble Commission that the DISCOMs have already initiated the tender process for 1st of its kind Battery Energy Storage system at Kajra and Pirpainti, however the system will be in place in 3-4 years of time.</p> <p>Further, in case of non-compliance of the RPO/ESS obligation target, the amount deposited with BERC is being added in ARR and subsequently passed on to consumer tariff which is an additional burden on consumers of Bihar.</p> <p>➤ <u>Harinagar Sugar Mill: -</u></p> <p>The additional RPO other than specified under regulation 4.1 which is for solar and wind shows that the commission is intending to encourage only wind and solar power plants</p>	
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		<p>which are mostly in the other States. Potential of wind power generation in Bihar is almost zero.</p> <p>As far as solar generation in Bihar is concerned it can generate energy on 13-14% plant load factor annually. During the month of November-February, insufficient sunlight will make the solar plants not as reliable as Co-gen plants.</p> <p>In the first proviso it has been Stated that the energy purchased from the storage shall be treated as RPO 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.</p> <p>The concerned stakeholder has mentioned that 15% energy can be arranged from different source other than Renewable Sources. This is quite in contravention to section 86 of the act to provide flexibility for a Power Storage Project</p>	
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		<p>(PSP) to meet the requirement from other sources.</p> <p>Further there is no mechanism in the draft regulation of to monitor or check the plant details of Solar and wind power project, whether they are supplying power from its own generation or not. It may be possible that they are connected to some other sources of generation or trader. So such provision of monitoring should be specified in the Regulation, and instead of 85%, it should be 100% from Energy Storage System (ESS).</p> <p>➤ Dalmia Cement Bharat Ltd.</p> <p>Relaxation to be given on fulfilment of ESS obligation for obligated entity under captive and open access user/consumer as they have limited or nil opportunity to procure power from Energy Storage System in comparison to distribution licensee. Relaxation to be provided in meeting</p>	
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		<p>the above compliance from solar and/or non-solar energy till such time REC are available in market as state of Karnataka and Andhra Pradesh.</p>	
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3.	<p>“4.2 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: -</p> <p>(B) By procuring Renewable Energy through Open Access from any Developer either directly or through a trading licensee or through power markets.”</p> <p>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,</p>	<p>➤ <u>IEX:</u> -</p> <p>“4.2 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: -</p> <p>(B) By procuring Renewable Energy through Open Access either directly or through a trading licensee or through power markets.”</p> <p>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.</p> <ul style="list-style-type: none"> • Rational <p>1. The Hon’ble Commission in Regulation 4.2 on the Draft Regulation provides methods</p>	<p>The Commission decides to keep Regulation 4.2 of the draft RPO Regulations as it is without any change. The draft RPO Regulations allows purchase of RE power through power market which broadly addressed the concern raised by the stakeholder.</p> <p>“4.2 There shall be a 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: -</p> <p>(B) By procuring Renewable Energy through Open Access from any Developer either directly or through a trading licensee or through power markets.”</p> <p>Explanation: (1) Developer means the</p>
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	<p><i>for purchase of electricity for resale thereof.</i></p>	<p>to procure RE power for fulfilment of RPO, one of the methods provided in the draft regulation is procuring Renewable Energy through Open Access from any “Developer” either directly or through a trading licensee or through power market.</p> <p>2. It is submitted that, in future there shall be various models for procurement of RE power, for example Distribution Licensee may have surplus RE power beyond RPO target which can be sold at power markets therefore RPO fulfilment only through developer may restrict the scope of the regulations.</p> <p>➤ <u>Harinagar Sugar Mill: -</u></p> <p>The above provision will certainly jeopardize the development of Cogen plants in Bihar rather it will be a full stop on the cogeneration in Bihar.</p> <p>The Open Access cost, line loss in PGCIL</p>	<p><i>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.</i></p>
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		<p>system, line loss in BSPTCL system etc. would be added on the power purchase cost. Besides that, who will guard or monitor the power purchase source (whether renewable, wind solar, baggase, biomass based etc.) of a trader, a developer or IEX.</p> <p>In view of the facts states above this provision should be deleted.</p>	
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		FY	Wind	Solar	Mini Micro Hydel	Bagas se	Biomass	Municipal Waste	Total	
		2022-23	X	1.0	0.25	12.85	10.00	0.5	24.60	
		2023-24	0.25	2.0	0.30	14.50	10.52	0.5	28.07	
		2024-25	0.25	3.0	0.35	15.81	11.50	1.0	31.91	
		2025-26	0.30	4.0	0.40	17.31	12.00	1.0	35.01	
		2026-27	0.50	5.0	0.45	19.00	12.50	1.0	38.45	
		2027-28	0.75	6.0	0.50	20.00	13.06	1.5	41.81	
		2028-29	1.00	7.0	0.75	21.00	13.61	1.5	44.86	
		2029-30	1.00		0.75	23.08	14.00	1.5	47.33	
	Under the facts and circumstances stated under paras above, the concerned stakeholder has proposed RPO trajectory from different sources as shown below: -									

		<p>i) RPO from different Sources (percentage):-</p> <p>ii) Renewable Purchase Obligation of NBPDC/ SBPDC</p> <p>a) The State DISCOM shall procure renewable power from the project existing or proposed to be executed in the State. If there will be no availability or future planning of installation of project then after the approval of the state government, power can be procured from other State on competitive basis of procurement of power.</p> <p>b) If the Power Procurement from Mini Micro Hydel and Municipal waste is not available in the State of Bihar that can be met from the Bagasse based Cogen plant or Biomass or both.</p> <p>c) The RPO shall be considered in energy term and not on the plant capacity and PPA can be executed accordingly for the quantum of</p>	
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		<p>energy.</p> <p>d) If there is shortfall in energy procurement compared to RPO in a particular year that can be compensated in future 3 years from the State generating unit and if not available, then from other States on competitive bidding process.</p> <p>e) For any shortfall in procurement the amount on account of the shortfall unit in RPO shall be worked out and the same shall be deposited in RPO head of the DISCOM and that can be invested for development of evacuation system of RE power or in emergent nature of work which is not included in any scheme, with prior approval of the commission.</p> <p>While approving the expenditure the commission shall hold public hearing Inviting comments and suggestions.</p>	
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		f) If municipal waste generation is not available in the State that can be met from RPO of Bagasse/Biomass or if excess that can be adjusted vice versa.	
3.	<i>“7.1 Each distribution licensee shall indicate, along with sufficient proof thereof, the estimated quantum of purchase from renewable energysources for the ensuring year in tariff / annual performance review</i>	<p>➤ <u>DISCOM:</u> -</p> <p><i>“7.1 Each distribution licensee shall indicate, along with sufficient proof thereof, the estimated quantum of purchase from renewable energy sources for the ensuring year in tariff / annual performance review petition in accordance with</i></p>	<p>The Commission decides to modify the Regulation 7.1 to address the treatment for shortfall of RE technology wise RPO.</p> <p><i>7.1 Each distribution licensee shall indicate, along with sufficient proof thereof, the estimated quantum of purchase from</i></p>

	<p><i>petition in accordance with Regulation notified by the commission. The estimated quantum of purchase shall be inaccordance with clause 4.1 of these Regulations. If the distribution licensee is unable to fulfil the obligation, the shortfall of the specified quantum of solar and / or non-solar of that year would be added to the specified quantum for the next year. Provided, the solar certificates and/ or non-solar certificates were not available in that particular year. However, credit for excess purchase from renewable energy sources would not be adjusted in the ensuing year."</i></p>	<p><i>Regulation notified by the commission. The estimated quantum of purchase shall be inaccordance with clause 4.1 of these Regulations. If the distribution licensee is unable to fulfil the obligation, the shortfall of the specified quantum of Wind, Hydro or other RE sourcesolar and / or non-sola of that year would be added to the specified quantum for the next year. Provided, the solar certificates and/ or non-solar certificates were not available in that particular year. However, Similarly, credit for excess purchase from renewable energy sources would adjusted in the ensuing year. Notwithstanding the above, the RPO shortfall as on date of applicability of these Regulations shall be spread over the control period, i.e., from FY 2022-23 to FY 2029-30 as stipulated in these Regulations."</i></p> <ul style="list-style-type: none"> • <u>Rationale:</u> - 	<p><i>renewable energy sources for the ensuring year in tariff / annual performance review petition in accordance with Regulation notified by the commission. The estimated quantum of purchase shall be inaccordance with clause 4.1 of these Regulations. If the distribution licensee is unable to fulfil the obligation, the shortfall of the specified quantum of wind, Hydro or other RPO of that year would be added to the specified quantum for the next year. Provided, the solar certificates and/ or non-solar certificates were not available inthat particular year. However, credit for excess purchase from renewable energy sources would not be adjusted in the ensuing year."</i></p>
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		<p>The Hon'ble Commission has made the provision that if the distribution licensee is unable to fulfil the RPO obligation in a FY the shortfall of the specified quantum of RPO of that year would be added to the specified quantum for the next year.</p> <p>This is to submit that the Solar RPO shortfall for FY 2021-22 as per the Tariff Order dated 25.03.2022 is as follows:</p> <p>For NBPDCCL- 722.79 MU</p> <p>For SBPDCL- 1029.01 MU</p> <p>The above shortfall when added with the proposed RPO for FY 2022-23 will be a huge financial burden on the DISCOM sand not feasible to comply. So, this is to request to the Hon'ble Commission that the RPO shortfall as on date of applicability of these Regulations shall be spread over the control period, i.e., from FY 2022-23 to FY 2029-30 as stipulated in</p>	
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		these Regulations.	
4.	Annexure I	<p>➤ IEX</p> <p>1. The Hon'ble Commission under point 1 of the Annexure-I provides the base for computation of RPO which is 'Energy sale excluding inter-state sale'. The Hon'ble Commission is requested to provide clarity regarding computation of RPO on state/ transmission/distribution periphery or provide example depicting the computation of energy sales. In this regard it is suggested that all RPO calculations should be on Distribution Licensee Periphery.</p> <p>2. The Hon'ble Commission under point 18(b) of the Annexure-1 of the draft regulation it is mentioned that Small hydro is a part of the Other RE purchase, it is evident that there is no segregation of small and large hydro under the proposed Regulations. Therefore, it</p>	<p>BERC RPO Regulation 2010 (Principal Regulations) specify RPO computation methodology: Every obligated entity shall purchase not less than% of its total energy consumption (total energy input minus T&D losses).</p> <p>The Commission decides to keep point 1 of Annexure 1 as it is without any change.</p> <p>The RPO shall be computed as % of total consumption / sale by the obligated entity.</p> <p>As per MoP corrigendum dated 19.09.2022 HPP includes large and small hydro projects. The Commission therefore decides to remove Small Hydro from point 18 (b) (other RE purchase) of Annexure -1 of draft RPO Regulations.</p>

		is submitted that word 'small' from point 18 b. of Annexure-1 should be omitted to avoid any confusion .	
5.			
	<ul style="list-style-type: none"> Note: BREDA hereby submitted that no any Comments/ Suggestion were being proposed by BREDA for new proposed Regulation of BEREC (Renewable Purchase Obligation, It's compliance and REC Framework Implementation) (4th Amendment) Regulation, 2022. 		

3.2. Miscellaneous:

Sl. No.	Existing Regulation	Proposed/ Suggestion/ Comments by Stakeholder	Commission's View
	<p>The following provision has been proposed to be removed from the existing Regulations:</p> <p>"4.1</p> <p>.....</p>	<p>➤ <u>DISCOM:</u> -</p> <p>The following provision has been proposed to be removed from the existing Regulations:</p> <p>"4.1 <i>Provided further, such obligation to purchase renewable energy shall be inclusive of the</i></p>	<p>The Commission decides to remove the existing provisions under regulation 4.1 as proposed in the draft RPO Regulations.</p>

Sl. No.	Existing Regulation	Proposed/ Suggestion/ Comments by Stakeholder	Commission's View
	<i>Provided further, such obligation to purchase renewable energy shall be inclusive of the purchases, if any, from renewable energy sources already being made by concerned obligated entity."</i>	<p><i>purchases, if any, from renewable energy sources already being made by concerned obligated entity."</i></p> <p>➤ <u>Rationale:</u> -</p> <p>The captioned provision if removed will have negative impact and financial implication on the stressed Bihar DISCOMs.</p> <p>In this regard, Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022 formulated by the MoP vide Order dated 06.06.2022 specifies the following:</p> <p><i>"4(2)(C)(f) The green energy purchased from distribution licensee or from Renewable Energy sources other than distribution licensee in excess at Renewable Purchase Obligation of obligated entity</i></p> <p><i>shall be counted towards Renewable Purchase Obligation compliance of the distribution</i></p>	Counting the past purchase from renewable energy sources for meeting current RPO target effectively reduce the RE procurement requirement in current year which will act as deterrent for RE development.

Sl. No.	Existing Regulation	Proposed/ Suggestion/ Comments by Stakeholder	Commission's View
		<p>licensee;</p> <p>As above, the Green Energy Open Access Rule also specifies that the green energy purchased by an entity other than the Distribution Licensee in excess of RPO compliance of the distribution licensee.</p> <p>Hence, the proposed provision is against the rules specified by the MoP. In the backdrop of the above the proposed provision may kindly be accepted by the Hon'ble Commission.</p>	
1.	<p><i>“9.1 If an obligated entities does not fulfil the renewable purchase obligation as provided in these regulations during any year..... such amount as the Commission may determine on the basis of the shortfall in units of RPO and the</i></p>	<p>➤ DISCOM: -</p> <p><i>9.1 If an obligated entity does not fulfil the renewable purchase obligation as provided in these regulations during any year..... such amount as the Commission may determine on the basis of the shortfall in units of RPO and the mechanism as for bearing price decided</i></p>	<p>In view of the CERC REC Regulations 2022 dated 9th May 2022, the Commission decides to modify the Regulation 9.1 of draft BERC RPO Regulations as</p> <p><i>“9.1 If an obligated entity does not</i></p>

Sl. No.	Existing Regulation	Proposed/ Suggestion/ Comments by Stakeholder	Commission's View
	<p>forbearance price decided by the Central Commission: or the fund may be deposited in the "Bihar Renewable Energy Development fund"</p> <p>Provided that the fund so created shall be utilized as may be directed by the Commission, partly for purchase of the certificates and partly for development of transmission/sub-transmission infrastructure for evacuation of power from generating stations based on renewable energy sources.</p> <p>Provided further that the obligated entities shall not be authorized to use the fund created in pursuance of the above, without prior approval of the Commission.</p>	<p>by the Central Commission: or the fund may be deposited in the "Bihar Renewable Energy Development fund"</p> <p>Provided that the fund so created shall be utilized as may be directed by the Commission, partly for purchase of the certificates and partly for development of transmission/sub- transmission infrastructure for evacuation of power from generating stations based on renewable energy sources.</p> <p>Provided further that the obligated entities shall not be authorized to use the fund created in pursuance of the above, without prior approval of the Commission.</p> <p>Provided further also that if the obligated entities fails to deposit the amount as directed by the Commission within the timeline 15 days of the communication of such direction, the obligated entities shall be liable</p>	<p>fulfil the renewable purchase obligation as provided in these regulations during any year.....such amount as the Commission may determine on the basis of the shortfall in units of RPO: or the fund may be deposited in the "Bihar Renewable Energy Development fund"</p> <p>Provided that the fund so created shall be utilized as may be directed by the Commission, partly for purchase of the certificates and partly for development of transmission/sub-transmission infrastructure for evacuation of</p>

Sl. No.	Existing Regulation	Proposed/ Suggestion/ Comments by Stakeholder	Commission's View
	<p><i>Provided further also that if the obligated entities fails to deposit the amount directed by the Commission within 15 days of the communication of such direction, the obligated entities shall be in breach of its licence condition."</i></p>	<p><i>for non-compliance of the directions of the Commissionsin breach of its licence condition.</i></p> <p>➤ <u>Rationale: -</u></p> <p>The captioned provision has been proposed as the mechanism of "Forbearance Price" has been abolished by the Hon'ble CERC.</p>	<p><i>power from generating stations based on renewable energy sources.</i></p> <p><i>Provided further that the obligated entities shall not be authorized to use the fund created in pursuance of the above, without prior approval of the Commission.</i></p> <p><i>Provided further also that if the obligated entities fails to deposit the amount directed by the Commission within 15 days of the communication of such direction, the obligated entities shall be in breach of its licence condition."</i></p>

Sl. No.	Existing Regulation	Proposed/ Suggestion/ Comments by Stakeholder	Commission's View

:

4. The draft Regulations as discussed in the table above have been modified accordingly and the BERC (Renewable Purchase Obligation, its compliance and REC Framework Implementation) (4th Amendment) Regulations, 2022 after incorporating the above discussed changes is annexed herewith as Annexure-A. The Commission directs its secretariat to ensure publication of the modified BERC (Renewable Purchase Obligation, its compliance and REC Framework Implementation) (4th Amendment) Regulations, 2022, in the official Gazette.
5. With aforesaid observation and directions this case is disposed of.

Sd/-
(S.C.Chaurasia)
Member

Sd/-
(Shishir Sinha)
Chairman



Bihar Electricity Regulatory Commission

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PATNA

DATE: 27.06.2023

Bihar Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC Framework Implementation) (4th Amendment) Regulations, 2023.

Notification

Case No. 12/2022: — 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-Regl-01/10-05 dated 16th 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)(4th 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

<i>Financial Year</i>	<i>Wind RPO</i>	<i>Hydro Power Obligation (HPO)</i>	<i>Other RPO</i>	<i>Total RPO</i>
<i>2022-23</i>	<i>0.81%</i>	<i>0.35%</i>	<i>23.44%</i>	<i>24.61%</i>
<i>2023-24</i>	<i>1.60%</i>	<i>0.66%</i>	<i>24.81%</i>	<i>27.08%</i>

2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	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 31st March 2022 **and the wind energy consumed over and above 7% from WPPs commissioned till 31st March 2022;***
- (b) HPO shall be met only by energy produced from LHPs (including PSPs **and small hydro projects (SHPs)**), commissioned after 8th 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 8th 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.

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 3^{1st} March 2022 beyond 'Wind RPO' for that year or with, excess energy consumed from eligible LHPs (including PSPs), commissioned after 8th 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:

Financial Year	Storage (on Energy basis)
2023- 24	0.5%
2024-25	1.0%
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 licence 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 1st and 2nd 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 7 (Distribution Licencee):

5.1. Substitution of Regulation 7.1:

Regulation 7.1 shall be substituted by the following:

“7.1 Each distribution licensee shall indicate, along with sufficient proof thereof, the estimated quantum of purchase from renewable energy sources for the ensuing year in tariff / annual performance review petition in accordance with Regulation notified by the commission. The estimated quantum of purchase shall be in accordance with clause 4.1 of these Regulations. If the distribution licensee is unable to fulfil the obligation, the shortfall of the specified quantum of wind, Hydro or other RE of that year would be added to the specified quantum for the next year. Provided, the solar certificates and/ or non-solar certificates were not available in that particular year. However, credit for excess purchase from renewable energy sources would not be adjusted in the ensuing year.”

6. Amendment in Regulation 9 (Effect of default):

6.1. Regulation 9.1 shall be substituted by the following:

“9.1 If an obligated entity does not fulfil the renewable purchase obligation as provided in these regulations during any year and also does not purchase the certificates, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by such obligated entity, such amount as the Commission may determine on the basis of the shortfall in units of RPO or as decided by the Central Commission or the fund may be deposited in the "Bihar Renewable Energy Development fund”

Provided that the fund so created shall be utilized as may be directed by the Commission, partly for purchase of the certificates and partly for development of transmission/sub-transmission infrastructure for evacuation of power from generating stations based on renewable energy sources.

Provided further that the obligated entities shall not be authorized to use the fund created in pursuance of the above, without prior approval of the Commission.

Provided further also that if the obligated entities fails to deposit the amount directed by the Commission within 15 days of the communication of such direction, the obligated entities shall be in breach of its licence condition.”

7. 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:				
Financial Year:				
Quarter:				
Sl. No.	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.	Hydro Power Purchase		MU MWh	
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	%	
18.	Other RE purchase	a+b+c+d+e+f	MU	
a.	Co-generation		MU	
b.	Biomass		MU	
c.	Biogas		MU	
d.	Solar		MU	
e.	Other		MU	
19.	Surplus / Deficit in Other RE purchase (+/-)	18-9	MU	
20.	Other RPO Achievement	18/1	%	
21.	Energy Storage Purchase		MU	

Name of the Obligated Entity:				
Financial Year:				
Quarter:				
Sl. No.	Particulars	Formula	Unit	Value
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	%	