



छत्तीसगढ़ राजपत्र

(असाधारण) प्राधिकार से प्रकाशित

क्रमांक 761]

रायपुर, शनिवार, दिनांक 31 दिसम्बर 2022 — पौष 10, शक 1944

ऊर्जा विभाग

मंत्रालय, महानदी भवन, नवा रायपुर अटल नगर

छत्तीसगढ़ राज्य विद्युत नियामक आयोग
सिंचाई कालोनी, शांति नगर, रायपुर -492001

रायपुर, दिनांक 22 दिसम्बर 2022

अधिसूचना

क्र. 97/सी.एस.ई.आर.सी./2022.— विद्युत अधिनियम 2003 (2003 का 36) की धारा 86(1) (ई) सहपठित धारा 181 के तहत प्रदत्त शक्तियों एवं इस बाबत सक्षमता प्रदान करने वाली अन्य समस्त शक्तियों को वापरते हुए, इस आयोग के द्वारा छत्तीसगढ़ राज्य विद्युत नियामक आयोग (नवीकरणीय क्रय प्रतिबद्धता एवं आर.ई.सी. पद्धति का क्रियान्वयन) विनियम, 2021 (एतदपश्चात प्रमुख विनियम कहा जाएगा) की रचना की गयी थी। यह विनियम 1 अप्रैल 2021 से लागू किये गये थे। इन विनियमों में प्रतिबद्ध प्रतिष्ठान एवं प्रतिबद्ध प्रतिष्ठानों के द्वारा क्रय की जाने वाली विद्युत के न्यूनतम परिमाण, 2021-22 से प्रारम्भ हुए तीन वर्षों हेतु कुल खपत के प्रतिशत के रूप में विनिर्दिष्ट किये जा चुके हैं।

ऊर्जा मंत्रालय द्वारा पत्र दिनांक 17.11.2017 के मार्फत, भारत में स्थित लोक एवं निजी विद्युत उत्पादन उपक्रमों के समस्त द्रवीकृत तल तथा बुरादा कोयला आधारित तापीय विद्युत संयंत्रों में, सिवाय उनके जिनके पास गोला एवं नलिका मिल हैं, प्रमुखतः कोयला सहित कृषि अवशेषों से निर्मित जैव-ईंधन उपले के 5-10% मिश्रण का उपयोग करने हेतु दिशा-निर्देश जारी किये गये हैं। 08.10.2021 को ऊर्जा मंत्रालय द्वारा, कोयला आधारित विद्युत संयंत्रों में सह-दहन के द्वारा विद्युत उत्पादन करने हेतु जैव-ईंधन के उपयोग हेतु नीति को पुनरीक्षित किया गया है। जिसमें, प्याला मिल, गोला एवं राईस मिल, गोला एवं नलिका मिल का उपयोग करने वाले विद्युत उत्पादन उपक्रमों के समस्त कोयला आधारित तापीय विद्युत संयंत्रों के द्वारा वार्षिक आधार पर अनिवार्यतः जैव-ईंधन उपले के 5% मिश्रण का उपयोग किया जाएगा। केंद्रीय विद्युत प्राधिकरण (सी.ई.ए.) द्वारा भी 24.11.2017 को सभी हितधारकों को, कोयला आधारित तापीय विद्युत संयंत्रों में जैव-ईंधन का उपयोग करने हेतु मशवरा जारी किया गया है।

तत्पश्चात, तापीय विद्युत संयंत्रों में जैव-ईंधन के सह-दहन को बढ़ावा देने के वारते, नवीन एवं नवीकरणीय ऊर्जा मंत्रालय (एम.एन.आर.ई.), भारत शासन द्वारा अधिसूचना दिनांक 26.9.2019 के मार्फत स्पष्ट किया गया है कि तापीय विद्युत संयंत्रों में जैव-ईंधन के सह-दहन से उत्पादित विद्युत, नवीकरणीय ऊर्जा है तथा गैर-सौर नवीकरणीय क्रय प्रतिबद्धता (आर.पी.ओ.) के निर्वहन हेतु पात्रता रखती है। तथा केंद्रीय आयोग से निवेदन किया कि जैव-ईंधन सह-दहन करने वाले तापीय विद्युत संयंत्रों में जैव-ईंधन से उत्पादित ऊर्जा के मात्रा-निर्धारण की प्रक्रिया/क्रियाविधि की, विश्वसनीय एवं सटीक तौर पर रचना करे एवं अधिसूचित करें।

केंद्रीय आयोग द्वारा, स्वतः याचिका 12/एस.एम./2019 में आदेश दिनांक 18.02.2020 के मार्फत जैव-ईंधन सह-दहन तापीय विद्युत संयंत्रों में जैव-ईंधन से उत्पादित विद्युत के प्राक्कलन की क्रियाविधि विहित कर दी गयी है। इस आदेश में केंद्रीय आयोग द्वारा यह जताया गया है कि जैव-ईंधन का उपयोग स्वयं-उपभोग विद्युत संयंत्रों द्वारा भी किया जा सकता है तथा क्रियाविधि, जैव-ईंधन का सह-दहन करने वाले स्वयं-उपभोग विद्युत संयंत्रों पर, लागू होगी।

आयोग द्वारा, 2022 की याचिका क्र. 24 में आदेश दिनांक 20.04.2022 के मार्फत निम्नलिखित निर्देशित किया गया है;

“6. उपरोक्त विचार-विमर्श से यह स्पष्ट होता है कि इस मामले का निदान सिर्फ छत्तीसगढ़ राज्य विद्युत नियामक आयोग (नवीकरणीय क्रय प्रतिबद्धता एवं आर.ई.सी. पद्धति का

क्रियान्वयन) विनियम, 2021 में समुचित संशोधन करके ही किया जा सकता है जिसके लिये विनियामक प्रक्रिया की आवश्यकता है। हम संबंधित अनुभाग को विनियामक प्रक्रिया प्रारम्भ करने का निर्देश देते हैं।

अब, ऊर्जा मंत्रालय द्वारा, आदेश दिनांक 22.07.2022 तथा इसके शुद्धिपत्र दिनांक 19.09.2022 के मार्फत, आर.पी.ओ. एवं ऊर्जा भण्डारण प्रतिबद्धता हेतु, 2029-30 तक, पथाकृति जारी की गयी है। यह पथाकृति 2021-22 से परे अवधिओं के लिये विनिर्दिष्ट की गयी है। प्रमुख विनियम 2021 के अनुच्छेद 4.3 का प्रथम परंतुक निम्नानुसार विनिर्दिष्ट करता है;

"परंतु यह कि वर्ष 2022-23 एवं 2023-24 हेतु आर.पी.ओ. स्तर, यथा ऊपर विनिर्दिष्ट अथवा एम.ओ.पी./एम.एन.आर.ई. के द्वारा विनिर्दिष्ट की जाने वाली पथाकृति, दोनों में से जो उच्च हो वह, होंगे।"

उपरोक्त को दृष्टिगत करते हुए आयोग का यह अभिमत है कि वर्ष 2029-30 तक आर.पी.ओ. को एम.ओ.पी. के परिपत्र के अनुरूप ढाला जाए।

प्रमुख विनियम के अनुसरण में तथा उपरोक्त विकसितता को प्रभावशील करने हेतु आयोग प्रमुख विनियम में संशोधन करने हेतु निम्नलिखित विनियम की रचना करता है।

छत्तीसगढ़ राज्य विद्युत नियामक आयोग (नवीकरणीय क्रय प्रतिबद्धता एवं आर.ई.सी. पद्धति का क्रियान्वयन) (प्रथम संशोधन) विनियम, 2022

1. संक्षिप्त शीर्षक, विस्तार एवं प्रारंभ :

- 1.1 यह विनियम छत्तीसगढ़ राज्य विद्युत नियामक आयोग (नवीकरणीय क्रय प्रतिबद्धता एवं आर.ई.सी. पद्धति का क्रियान्वयन) (प्रथम संशोधन) विनियम, 2022 कहलाएंगे।
- 1.2 यह विनियम सम्पूर्ण छत्तीसगढ़ राज्य पर लागू होंगे।
- 1.3 यह विनियम छत्तीसगढ़ राजपत्र में इसके प्रकाशन के दिनांक से प्रभावशील होंगे।

2: विनियम 3 के अंतिम अनुच्छेद का प्रतिस्थापन

प्रमुख विनियम के विनियम 3 के अंतिम अनुच्छेद को निम्नलिखित के द्वारा प्रतिस्थापित किया जाता है, नामतः:

इन विनियमों के तहत ढाली गयी आर.पी.ओ. पद्धति 1 अप्रैल, 2021 से प्रारम्भ होगी और सामान्यतः 31 मार्च, 2030 (अर्थात् वित्तीय वर्ष 2029-30 तक) लागू रहेगी। वित्तीय वर्ष 2029-30 हेतु विनिर्दिष्ट आर.पी.ओ. 2029-30 से परे जारी रहेगी जब तक इस संबंध में आयोग द्वारा पुनरीक्षण प्रभावी ना किया गया हो।

3. विनियम 4 के उप-विनियम 4.2 का, नवीन उप-विनियम के द्वारा, प्रतिस्थापन

प्रमुख विनियम के विनियम 4 के उप-विनियम 4.2 को निम्नलिखित उप-विनियम के द्वारा प्रतिस्थापित किया जाता है, नामतः:

4.2 समस्त नवीकरणीय ऊर्जा क्रय, सीधे उत्पादन स्थानकों से अथवा व्यापारी के जरिये अथवा विद्युत विनिमय केंद्रों के जरिये, आर.पी.ओ. के निर्वहन में मान्य होगी;

आर.पी.ओ. के निर्वहन हेतु, प्रतिबद्ध प्रतिष्ठानों द्वारा जैव-ईंधन आधारित उत्पादन संयंत्रों तथा जैव-ईंधन सह-दहन करने वाले कोयला आधारित तापीय विद्युत संयंत्रों के साथ किये

गये दीर्घ-कालीन विद्युत क्रय अनुबंधों के तहत नवीकरणीय विद्युत क्रय ही मान्य की जाएगी।

प्रतिबद्ध प्रतिष्ठानों के द्वारा दीर्घ-कालीन, मध्य-कालीन, लघु-कालीन व्यवस्थाओं के तहत, जैव-ईंधन सह-दहन करने वाले जैव-ईंधन कोयला आधारित तापीय विद्युत संयंत्रों के अलावा अन्य नवीकरणीय ऊर्जा स्रोतों यथा लघु जलीय, विशाल जलीय, पवन, सौर, से की गयी क्रय, आर.पी.ओ. के निर्वहन हेतु मान्य की जाएगी।

जैव-ईंधन सह-दहन करने वाले कोयला आधारित तापीय विद्युत संयंत्रों, स्वयं-उपभोग एवं सह-उत्पादन करने वाले विद्युत संयंत्रों सहित, से उत्पादित विद्युत, प्रतिबद्ध प्रतिष्ठानों यथा सह-स्थित, गैर-सह-स्थित स्वयं उपयोगकर्ता एवं सह-स्थित अंतिम उपयोगकर्ता जो विद्युत नियम 2005 के तहत स्वयं-उपयोगकर्ता के रूप में योग्य नहीं हैं, के आर.पी.ओ. के निर्वहन हेतु मान्य होगी।

जैव-ईंधन सह-दहन करने वाले कोयला आधारित तापीय विद्युत संयंत्रों, सह-दहन करने वाले स्वयं-उपभोग एवं सह-उत्पादन विद्युत संयंत्रों सहित, से जैव-ईंधन से उत्पादित विद्युत के प्राक्कलन की क्रियाविधि संलग्नक 'अ' के अनुसार होगी।

4. विनियम 4 के उप-विनियम 4.3 में सारणी 1 में आर.पी.ओ. पथाकृति में सुधार

विनियम 4 का उप-विनियम 4.3

प्रमुख विनियम के विनियम 4 के उप-विनियम 4.3 में सारणी 1 को निम्नानुसार प्रतिस्थापित किया जाएगा :-

वर्ष	सौर	गैर-सौर		योग
		एच.पी.ओ.	अन्य	
2021-22	10.50%	0.18%	10.5%	21.18%

वर्ष	पवन आर.पी.ओ.	एच.पी.ओ.	अन्य एच.पी.ओ.	कुल आर.पी.ओ.
2022-23	0.81%	0.35%	23.44%	24.61%
2023-24	1.60%	0.66%	24.81%	27.08%
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%

(अ) पवन आर.पी.ओ. का निर्वहन, 31 मार्च 2022 के बाद कार्यापित पवन ऊर्जा परियोजना (डबल्यु.पी.पी) द्वारा उत्पादित ऊर्जा तथा 31 मार्च 2022 तक कार्यापित डबल्यु.पी.पी. से 7% से ऊपर खपत पवन ऊर्जा से होगा।

(ब) एच.पी.ओ. का निर्वहन, 8 मार्च 2019 के बाद कार्यापित जलीय परियोजना (पम्कृत भण्डारण परियोजना (पी.एस.पी.) तथा लघु जलीय परियोजना (एस.एच.पी.) सहित) से उत्पादित ऊर्जा से होगा।

- (स) अन्य आर.पी.ओ. का निर्वहन किसी भी नवीकरणीय विद्युत परियोजना जो उपरोक्त (अ) एवं (ब) में उल्लेखित नहीं है, से उत्पादित ऊर्जा से किया जा सकता है।
- (द) किसी वर्ष विशेष में अन्य आर.पी.ओ. श्रेणी में बकाया कमी का निर्वहन, 31 मार्च 2022 के बाद कार्यापित डबल्यू.पी.पी. से अधिक ऊर्जा खपत, उस वर्ष की 'पवन आर.पी.ओ.' से परे अथवा 8 मार्च 2019 के बाद कार्यापित पात्रताधारी जलीय परियोजना (पी.एस.पी. एवं एस.एच.पी. सहित) से अधिक ऊर्जा खपत, उस वर्ष की 'एच.पी.ओ.' से परे अथवा अंशतः दोनों से किया जा सकता है। आगे यह कि किसी वर्ष विशेष में 'पवन आर.पी.ओ.' का निर्वहन, जलीय विद्युत संयंत्रों से उस वर्ष की 'एच.पी.ओ.' से अधिक खपत हुई ऊर्जा से तथा व्युत्क्रम से किया जा सकता है।
- (ई) सकल ऊर्जा खपत का निम्नांकित प्रतिशत, सौर/पवन ऊर्जा भण्डारण सहित/मार्फत होगा।

वित्तीय वर्ष	भण्डारण (ऊर्जा आधारित)
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%

उपरोक्त सारणी में ऊर्जा भण्डारण प्रतिबद्धता की गणना सकल विद्युत खपत के प्रतिशत के रूप में ऊर्जा के स्वरूप में की जाएगी तथा तब निर्वाहित मानी जाएगी जब ऊर्जा भण्डारण प्रणाली में भण्डारित सकल ऊर्जा का कम से कम 85% वार्षिक आधार पर नवीकरणीय स्रोतों से क्रय किया जाये।

ऊर्जा भण्डारण प्रतिबद्धता, नवीकरणीय स्रोतों से भण्डारित ऊर्जा तक, 'कुल आर.पी.ओ.' के निर्वहन का भाग मानी जाएगी।

5. विनियम 4 के उप-विनियम 4.3 के प्रथम परंतुक का प्रतिस्थापन

विनियम 4 के उप-विनियम 4.3 के प्रथम परंतुक को निम्नलिखित के द्वारा प्रतिस्थापित किया जाता है, नामतः -

परंतु यह कि वर्ष 2022-23 तथा उससे परे आर.पी.ओ. एवं ऊर्जा भण्डारण प्रतिबद्धता, एम.ओ. पी./ एम.एन.आर.ई. के द्वारा विनिर्दिष्ट सुधार/संशोधनों, यदि कोई हों, के अध्यक्षीन होंगे।

6. विनियम 4 के उप-विनियम 4.4 की नये उप-विनियम के द्वारा प्रतिस्थापना

प्रमुख विनियम के विनियम 4 के उप-विनियम 4.4 को निम्नलिखित उप-विनियम के द्वारा प्रतिस्थापित किया जाता है, नामतः

4.4 ऐसा विद्युत क्रय, वितरण अनुज्ञप्तिधारियों हेतु आयोग द्वारा समय-समय पर अवधारित टैरिफ पर अथवा एम.एन.आर.ई. द्वारा विहित प्रतिस्पर्धात्मक बोली प्रक्रिया से हासिल की गयी कीमत पर की जाएगी। वितरण अनुज्ञप्तिधारियों द्वारा, आयोग के आदेशानुसार, जैव-ईंधन आधारित

विद्युत संयंत्रों, राज्य में जैव-ईंधन के सह-दहन से तापीय विद्युत संयंत्रों में उत्पादित विद्युत, लघु जलीय संयंत्रों, सौर विद्युत संयंत्रों के साथ निष्पादित मौजूदा दीर्घ-कालीन क्रय अनुबंध को ऊपर लिखित क्रय प्रतिबद्धता के मकसद की गिनती में गिना जाएगा।

7. नया संलग्नक अ जोडा जाना

जैव-ईंधन सह-दहन वाले कोयला आधारित तापीय विद्युत संयंत्रों, जैव-ईंधन सह-दहन वाले स्वयं-उपभोग तथा सह-उत्पादन विद्युत संयंत्रों सहित, में जैव-ईंधन से उत्पादित विद्युत का प्राक्कलन करने की क्रियाविधि

अधो-विनिर्दिष्ट क्रियाविधि का अनुसरण उत्पादन कंपनिओं, राज्य भार प्रेषण केंद्र, जैव-ईंधन सह-दहन वाले कोयला आधारित तापीय विद्युत संयंत्रों, जैव-ईंधन सह-दहन वाले स्वयं-उपभोग तथा सह-उत्पादन विद्युत संयंत्रों सहित, जैव-ईंधन से उत्पादित विद्युत का प्राक्कलन हेतु स्थापित राज्य अभिकरण के द्वारा किया जाएगा।

पायदान – 1:

1. जैव-ईंधन से उत्पादित विद्युत का प्राक्कलन, उत्पादन के सिरे पर मासिक आधार पर निम्नलिखित सूत्रों के अनुसार किया जाएगा :

$$\text{ई.बी. (जी)} = \left[\frac{(\text{क्यु.बी. X जी.बी.})}{(\text{क्यु.सी. X जी.सी.}) + (\text{क्यु.बी. X जी.बी.})} \right] \times \text{ई. (जी.टी.)}$$

जहाँ,

ई.बी. (जी) = जैव-ईंधन से उत्पादन के सिरे पर माह के दौरान उत्पादित विद्युत (के.डबल्यू.एच)

क्यु.बी. = माह के दौरान जैव-ईंधन की खपत (के.जी.)

जी.बी. = माह में जैव-ईंधन की खपत की सकल कैलॉरिफिक वेल्थ (जी.सी.वी.) का भारित औसत (के.कैलॉरी/के.जी.) जैसा सी.एस.ई.आर.सी. आर.ई. टैरिफ विनियम में विनिर्दिष्ट है।

ई (जी.टी.) = माह में उत्पादन सिरे पर उत्पादित सकल विद्युत ऊर्जा (के.डबल्यू.एच)

क्यु.सी. = माह में ज्वलित कोयले का वजन (के.जी.)

जी.सी. = माह में ज्वलित कोयले का जी.सी.वी. का भारित औसत (के.कैलॉरी/के.जी.)

2. गुणनफल (क्यु.बी. X जी.बी.), माह में जैव-ईंधन के रूप में खपी ऊष्मा (के.कैलॉरी में) को दर्शाता है। जिसका प्राक्कलन मासिक आधार पर निम्नलिखित सूत्रों को लगाकर किया जाएगा:

$$\text{क्यु.बी. X जी.बी. (के.कैलॉरी)} = \left\{ \text{जैव-ईंधन का प्रारंभिक शेष (के.जी.) X जैव-ईंधन के प्रारंभिक शेष का जी.सी.वी. का भारित औसत (के.कैलॉरी/के.जी.)} \right\} + \left\{ \text{माह में प्राप्त जैव-ईंधन का वजन (के.जी.) X माह में प्राप्त जैव-ईंधन के जी.सी.वी. का भारित औसत (के.कैलॉरी/के.जी.)} \right\}$$

– {जैव-ईंधन का अंतिम स्टॉक (के.जी.) X जैव-ईंधन के अंतिम स्टॉक का जी.सी.वी. का भारित औसत (के.कैलॉरी/के.जी.)}

3. गुणनफल (क्यु.सी. X जी.सी.), माह में कोयले के रूप में खपी ऊष्मा (के.कैलॉरी में) को दर्शाता है। जिसका प्राक्कलन मासिक आधार पर निम्नलिखित सूत्रों को लगाकर किया जाएगा :

क्यु.सी. X जी.सी. (के.कैलॉरी) = [कोयले का प्रारंभिक शेष (के.जी.) X कोयले के प्रारंभिक शेष का जी.सी.वी. का भारित औसत (के.कैलॉरी/के.जी.)] + [माह में प्राप्त कोयले का वजन (के.जी.) X माह में प्राप्त कोयले के जी.सी.वी. का भारित औसत (के.कैलॉरी/के.जी.)]

– [कोयले का अंतिम स्टॉक (के.जी.) X कोयले के अंतिम स्टॉक का जी.सी.वी. का भारित औसत (के.कैलॉरी/के.जी.)]

पायदान – 2 :

4. जैव-ईंधन के उपयोग से उत्पादित एक्स-बस विद्युतीय ऊर्जा का प्राक्कलन मासिक आधार पर निम्नलिखित सूत्रों को लगाकर किया जाएगा :

$$\text{ई.बी. (एक्स-बस)} = \text{ई.बी. (जी.)} [1 - \{(\text{ई.जी.टी.}) - \text{ई.एस.ओ.} / \text{ई.जी.टी.}\}]$$

जहाँ,

ई.बी. (एक्स-बस) = माह के दौरान जैव-ईंधन के उपयोग से उत्पादित एक्स-बस विद्युतीय ऊर्जा (के.डबल्यू.एच.)

ई.बी. (जी.) = माह के दौरान उत्पादन सिरे पर जैव-ईंधन के उपयोग से उत्पादित विद्युतीय ऊर्जा, पायदान-1 में हासिल (के.डबल्यू.एच.)

ई.जी.टी. = माह के दौरान उत्पादन सिरे पर कुल उत्पादित विद्युतीय ऊर्जा (के.डबल्यू.एच.)

ई.एस.ओ. = माह के दौरान कुल बहिर्गमित (एक्स-बस) ऊर्जा (के.डबल्यू.एच.)

5. उत्पादन कंपनी, हितग्राहिओं तथा जैव-ईंधन के उपयोग तथा अनुश्रवण पद्धति/जैव-ईंधन के उपयोग हेतु आंकड़े प्राप्त करने की शक्ति से संबंधित राज्य अभिकरण को, जानकारी मुहैया कराएगी जैव-ईंधन एवं सह उत्पादन संयंत्रों हेतु सी.एस.ई.आर.सी. आर.ई. टैरिफ विनियम में विनिर्दिष्ट प्रावधानों के अनुसार होगी। राज्य अभिकरण, विद्युत उत्पादन संयंत्रों में जैव-ईंधन के सह-दहन से उत्पादित विद्युत का, सत्यापन करेगी।

उत्पादन स्थानकों के द्वारा संधारित, ईंधन तथा जी.सी.वी. का मासिक हिसाब, हितग्राहिओं तथा एस.एल.डी.सी. के प्राधिकृत प्रतिनिधि/ओं को मांगने पर मुहैया कराया जाएगा।

टीप:- इस विनियम के हिन्दी संस्करण की अंग्रेजी संस्करण से प्रावधानों की व्याख्या या समझने में अंतर होने की दशा में, अंग्रेजी संस्करण (मूल संस्करण) का तात्पर्य सही माना जाएगा और इस संबंध में किसी भी विवाद की स्थिति में आयोग का निर्णय अंतिम एवं बाध्यकारी होगा।

आयोग के आदेशानुसार

हस्ता./-

(एस.पी. शुक्ला)

सचिव.

Raipur, the 20th December 2022

NOTIFICATION

No. 97/CSERC/2022.— In exercise of powers vested under Section 86 (1) (e) read with Section 181 of the Electricity Act 2003 (36 of 2003) and all other powers enabling it in this behalf, this Commission made Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2021 (here after called "the Principal Regulations"). These regulations were applicable from April 01, 2021. In these regulations, obligated entities and minimum quantum of electricity to be procured by obligated entities as percentage of total consumption for three years starting 2021-22 have been specified.

Ministry of Power vide it's letter dated 17.11.2017 issued guidelines to use 5-10% blend of biomass pellets made, primarily, of agro residue along with coal, in all fluidized bed and pulverized coal based thermal power plants except those having ball and tube mill, of power generating utilities, public or private located in India. On 08.10.2021, MoP revised the policy for biomass utilisation for power generation through co-firing in coal-based power plants in which all coal based thermal power plants of power generation utilities with bowl mill, ball & rice mill and ball & tube mills have to use mandatorily 5% blend of biomass pellets on annual basis. Meantime, Central Electricity Authority of India (CEA) issued an advisory on 24.11.2017 to all the stakeholders for utilizing biomass in coal based thermal power plants.

Subsequently, in order to promote co-firing of biomass in thermal power plants, Ministry of New and Renewable Energy (MNRE), Government of India, vide its notification dated 26.9.2019 has clarified that the power generated from co-firing of biomass in thermal power plants is renewable energy and is eligible for meeting non-solar Renewable Purchase Obligation (RPO) and has requested Central Commission to formulate and notify the procedure/methodology for quantifying the energy produced from biomass in biomass co-fired thermal power plants in a reliable and accurate manner.

Central Commission, vide order dated 18.02.2020 in suo-motu petition 12/SM/2019, has prescribed methodology for estimation of electricity generated from biomass in biomass co-fired thermal power plants. In this order the Central Commission observed that biomass can also be used in thermal captive power plants and the methodology shall be applicable to the captive power plants using co-firing of biomass.

The Commission, vide order dated 20.04.2022 in P No. 24 of 2022, has held as follows;

"6. From the above discussion it is clear that this matter can be resolved only making suitable amendments in CSERC (Renewable Purchase Obligation and REC Framework implementation) Regulations, 2021, for which regulatory process is required. We direct regulatory process be initiated by the concerned section."

Recently, Ministry of Power vide its order dated 22.07.2022 and its corrigendum dated 19.09.2022 has issued trajectory till 2029-30 for RPO and energy storage obligation. This trajectory has been specified for periods beyond 2021-22. First proviso of para 4.3 of Principal Regulations 2021 specifies as follows;

“Provided that RPO levels for the year 2022-23 & 2023-24 shall be as specified above or MoP/MNRE trajectory to be specified, whichever is higher.”

In view of the above, the Commission is of opinion to align the RPO in line with MoP circular till the year 2029-30.

In pursuance of the Principal Regulations and to give effects to the foregoing developments, the Commission hereby makes the following regulations to amend the Principal Regulations.

**CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
(RENEWABLE PURCHASE OBLIGATION AND REC FRAMEWORK
IMPLEMENTATION) (FIRST AMENDMENT) REGULATIONS, 2022**

1. Short Title, Extent and Commencement

- 1.1 These Regulations shall be called the Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) (First Amendment) Regulations, 2022.
- 1.2 These Regulations shall extend to the whole of the State of Chhattisgarh.
- 1.3 These Regulations shall come into force from date of publications in the CG Rajpatra.

2. Substitution of last para of regulation 3

For last para of regulation 3 of the principal regulations the following shall be substituted namely:

The RPO framework outlined under these Regulations shall commence from the April01, 2021 and shall generally be applicable until March31, 2030 (i.e., upto the financial year 2029-2030). The RPO specified for the Financial Year 2029-30 shall be continued beyond 2029-30 till any revision is effected by the Commission in this regard.

3. Substitution of new sub regulation for sub regulation 4.2 of regulation 4

For sub regulation 4.2 of regulation 4 of the principal regulations, the following sub regulation shall be substituted namely:

- 4.2 All renewable energy purchase directly from generating stations or through trader or through power exchanges shall be considered for meeting the RPO;

For meeting the RPO, renewable power purchases made by the obligated entities under long term power purchase agreements with the biomass based generating plants and coal based thermal power plants co-firing bio-mass shall only be considered.

Purchases made by obligated entities from renewable energy sources other than biomass coal based thermal power plants co-firing bio-mass such as small hydel,

large hydro, wind and solar under long-term, medium-term and short-term arrangements, will be considered for meeting the RPO.

Electricity generated from coal based thermal power plants including captive and co-generation power plants co-firing bio-mass shall be considered for meeting the RPO of obligated entities such as co-located, non co-located captive users and co-located end users who do not qualify as captive users under Electricity Rules 2005.

Methodology of estimation of electricity generated from biomass in biomass co-firing coal based thermal power plants, including captive and co-generation power plants co-firing biomass shall be as per Annexure A.

4. Modification of RPO Trajectory in Table 1 in sub regulation 4.3 of regulation 4

Table 1 in sub regulation 4.3 of regulation 4 of the principal regulations shall be substituted as:

Year	Solar	Non-Solar		Total
		HPO	Others	
2021-22	10.50%	0.18%	10.5%	21.18%

Year	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.61%
2023-24	1.60%	0.66%	24.81%	27.08%
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%

- Wind RPO shall be met 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.
- HPO shall be met only by energy produced from Hydro Power Projects (including pumped storage projects (PSPs) and Small Hydro Projects (SHPs)), commissioned after 8th March 2019.
- Other RPO may be met by energy produced from any RE power project not mentioned in (a) and (b) above.
- 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 31st March 2022 beyond 'Wind RPO' for that

year or with, excess energy consumed from eligible Hydro Power Projects (including PSPs and SHPs), 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.

- (e) The following percentage of total energy consumed shall be solar/wind energy along with/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%

The Energy Storage Obligation in table 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.

The Energy Storage Obligation to the extent of energy stored from RE sources shall be considered as a part of fulfilment of the "Total RPO".

5. Substitution of first proviso of sub regulation 4.3 of regulation 4

For first proviso of sub regulation 4.3 of regulation 4 of the principal regulations, the following shall be substituted namely:

Provided that RPO and energy storage obligation for the year 2022-23 & beyond shall be subject modification/amendments specified by MoP/MNRE from time to time, if any.

6. Substitution of new sub regulation for sub regulation 4.4 of regulation 4

For sub regulation 4.4 of regulation 4 of the principal regulations, the following sub regulation shall be substituted namely:

4.4 Such power purchase shall be made at tariffs determined by the Commission from time to time for procurement of power by distribution licensees or price discovered through competitive bidding as per the guidelines prescribed by MNRE. Long term purchase already contracted by the distribution licensees as per the orders of the Commission for biomass-based power plants, power generated from co firing of biomass in thermal power plants, small hydel plants or solar power plants in the State shall be reckoned for the purpose of the purchase obligation given above.

7. New Annexure to be added as Annexure-A

Methodology estimation of electricity generated from biomass in biomass co-firing coal based thermal power plants, including captive and co-generation power plants co-firing biomass

The methodology specified hereunder is to be followed by generating companies, State Load Dispatch Centre, State Agency for estimating electricity generated from biomass co-firing coal based thermal power plants, including captive and co-generation power plants co-firing biomass.

Step-1:

1. The electricity generated from biomass shall be estimated at generator terminal on monthly basis in accordance with the following formulae:

$$Eb(G) = [(Qb \times Gb) / ((Qc \times Gc) + (Qb \times Gb))] \times E(GT)$$

Where,

$Eb(G)$ = Electrical energy generated by biomass at generator terminal during the month (kWh);

Qb = Quantity of biomass consumed during the month (kg)

Gb = Weighted average Gross Calorific Value (GCV) of biomass consumed during the month (kCal/kg), as specified in the CSERC RE Tariff Regulations

$E(GT)$ = Gross electrical energy generated at generator terminal during the month (kWh)

Qc = Quantity of coal burnt during the month (kg)

Gc = Weighted average GCV of coal burnt during the month (kCal/kg)

2. The product ($Qb \times Gb$) represents heat (in kCal) input through biomass during the month and shall be estimated on monthly basis by applying the following formulae:

$$Qb \times Gb \text{ (kCal)} = \{ \text{Opening balance of biomass (kg)} \times \text{weighted average GCV of opening balance of biomass (kCal/kg)} \}$$

$$+ \{ \text{quantity of biomass received during the month (kg)} \times \text{weighted average GCV of biomass received during the month (kCal/kg)} \}$$

$$- \{ \text{closing stock of biomass (kg)} \times \text{weighted average GCV of the closing balance of biomass (kCal/kg)} \}.$$

3. The product ($Qc \times Gc$) represents heat (in kCal) input through coal during the month and shall be estimated on monthly basis by applying the following formulae:

$$Qc \times Gc \text{ (kCal)} = \{ \text{Opening balance of coal (kg)} \times \text{weighted average GCV of Opening balance of coal (kCal/kg)} \}$$

$$+ \{ \text{quantity of coal received during the month (kg)} \times \text{weighted average GCV of coal received during the month (kCal/kg)} \}$$

- {closing stock of coal (kg) x weighted average GCV of the closing balance of coal (kCal/kg)}

Step-2:

4. The ex-bus electrical energy generated by using biomass shall be estimated on monthly basis by applying following formulae:

$$Eb \text{ (ex-bus)} = Eb(G) \{1 - [(E(GT) - ESO)/E(GT)]\}$$

Where,

$Eb \text{ (ex-bus)}$ = Electrical energy generated by biomass ex-bus during the month (kWh);

$Eb(G)$ = Electrical energy generated by biomass at Generator terminal during the month arrived at Step-1(kWh);

$E(GT)$ = Total electrical energy generated at generator terminal during the month (kWh);

ESO = Total energy sent out (ex-bus) during the month (kWh).

5. The generating company shall provide information to the beneficiaries and State Agency related to biomass uses and monitoring mechanism/power to get statistics for the use of biomass fuel shall be as per provisions specified in prevailing CSERC RE Tariff Regulations for biomass and co-generation plants. State Agency shall verify electricity generated from biomass co firing in power generating plants.

Monthly fuel and GCV accounts as maintained by generating station shall be made available to authorized representative/s of beneficiaries and SLDC on demand.

By Order of the Commission

Sd/-

(S.P. Shukla)
Secretary.

“बिजनेस पोस्ट के अन्तर्गत डाक शुल्क के नगद भुगतान (बिना डाक टिकट) के प्रेषण हेतु अनुमत. क्रमांक जी.2-22-छत्तीसगढ़ गजट / 38 सि. से. भिलाई. दिनांक 30-05-2001.”



पंजीयन क्रमांक
“छत्तीसगढ़/दुर्ग/09/2013-2015.”

छत्तीसगढ़ राजपत्र

(असाधारण) प्राधिकार से प्रकाशित

क्रमांक 567]

रायपुर, गुरुवार, दिनांक 11 नवम्बर 2021 — कार्तिक 20, शक 1943

ऊर्जा विभाग

मंत्रालय, महानदी भवन, नवा रायपुर अटल नगर

छत्तीसगढ़ राज्य विद्युत नियामक आयोग
विद्युत नियामक भवन
सिंचाई कॉलोनी, शांति नगर, रायपुर

रायपुर, दिनांक 29 अक्टूबर 2021

क्र. 91/छ.ग.रा.वि.नि.आ./2021.— विद्युत अधिनियम, 2003 (अधिनियम) की धारा 86(1)(ई) राज्य आयोग को समादेशित करती है कि ऊर्जा के नवीकरणीय स्रोतों से विद्युत के सह-उत्पादन और उत्पादन को प्रोत्साहित करने के लिए ग्रिड से संयोजकता उपलब्ध कराने एवं किसी व्यक्ति को विद्युत विक्रय करने हेतु समुचित उपाय करें और किसी वितरण अनुज्ञापिधारी के क्षेत्र में, विद्युत की कुल खपत के किसी प्रतिशत को ऊर्जा के ऐसे स्रोतों से क्रय करने के लिए भी विनिर्दिष्ट करे।

केन्द्र सरकार द्वारा अधिसूचित टैरिफ नीति 2016, द्वारा राज्य विद्युत नियामक आयोगों को दायित्व भी दिया गया है, कि उस क्षेत्र में ऐसे स्रोतों की उपलब्धता और खुदरा दरों पर उसके प्रभाव को ध्यान में रखते हुए, ऐसे स्रोतों से विद्युत क्रय हेतु एक न्यूनतम प्रतिशत तय करे। इसके अतिरिक्त आयोग भी यह सुनिश्चित करें कि मार्च 2022 तक, सौर ऊर्जा की खपत, कुल खपत के 8 प्रतिशत या केन्द्र सरकार द्वारा अधिसूचित स्तर तक पहुँच जाए।

तदनुसार, भारत सरकार वर्ष 2022 तक 175 गिगावॉट नवीकरणीय ऊर्जा के निर्धारित लक्ष्य के साथ नवीकरणीय ऊर्जा स्रोतों को विकसीत करने पर बल दे रही है।

उपरोक्त को ध्यान में रखते हुए छत्तीसगढ़ राज्य विद्युत नियामक आयोग, अधिनियम की धारा 86(1)(ई) सहपठित धारा 181 द्वारा प्रदत्त शक्तियों के अनुसरण में, एतद् द्वारा नवीकरणीय क्रय दायित्व तथा नवीकरणीय ऊर्जा प्रमाण पत्र संरचना के क्रियान्वयन के सम्बन्ध में वर्ष 2021-2024 के अवधि के लिए छत्तीसगढ़ राज्य विद्युत नियामक आयोग (नवीकरणीय क्रय दायित्व एवं नवीकरणीय ऊर्जा प्रमाण पत्र संरचना क्रियान्वयन), विनियम, 2021 निम्नलिखित बनाता है:—

छत्तीसगढ़ राज्य विद्युत नियामक आयोग (नवीकरणीय क्रय दायित्व एवं नवीकरणीय ऊर्जा प्रमाण पत्र संरचना क्रियान्वयन), विनियम, 2021

1. संक्षिप्त नाम, विस्तार एवं प्रारम्भ

- 1.1 ये विनियम, छत्तीसगढ़ राज्य विद्युत नियामक आयोग (नवीकरणीय क्रय दायित्व एवं नवीकरणीय ऊर्जा प्रमाण पत्र संरचना क्रियान्वयन) विनियम, 2021 कहलायेंगे।
- 1.2 इन विनियमों का विस्तार, सम्पूर्ण छत्तीसगढ़ राज्य में होगा।

- 11.4 ऐसे उपभोक्ता, जो नवीकरणीय ऊर्जा स्रोतों से मुक्त उपयोग पद्धति से विद्युत प्राप्त कर रहे हैं, उन्हें आयोग द्वारा विनिर्दिष्ट मुक्त उपयोग विनियमों की शर्तों/अथवा आदेश के अनुसार क्रॉस-सब्सिडी प्रभार का भुगतान करना आवश्यक होगा।
- 12. कठिनाइयों को दूर करने की शक्ति**
- 12.1 आयोग, या तो स्वतः या किसी व्यक्ति द्वारा आवेदन किए जाने पर, इन विनियमों को पुनरीक्षित कर सकेगा और इन विनियमों के प्रावधानों को प्रभावशील करने में किसी कठिनाई को दूर करने के लिए समुचित आदेश पारित कर सकेगा।
- 13. छूट देने की शक्ति**
- 13.1 आयोग अपने सामान्य अथवा विशेष आदेश से कारणों को अभिलिखित करते हुए, इन विनियमों से किन्हीं प्रावधानों को स्वयं अपनी ओर से अथवा उसके समक्ष किसी हितबद्ध व्यक्ति द्वारा आवेदन किए जाने पर, छूट प्रदान कर सकेगा।
- टीपः— इस विनियम के हिन्दी संस्करण की अंग्रेजी संस्करण से प्रावधानों की व्याख्या या समझने में अंतर होने की दशा में, अंग्रेजी संस्करण (मूल संस्करण) का तात्पर्य सही माना जाएगा और इस संबंध में किसी भी विवाद की स्थिति में आयोग का निर्णय अंतिम एवं बाध्यकारी होगा।

आयोग के आदेशानुसार

हस्ता./—

(एस.पी. शुक्ला)
सचिव.

Raipur, the 29th October 2021

No. 91/CSERC/2021.— Section 86(1)(e) of the Electricity Act, 2003 (the Act) mandates the State Commission to promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee.

The Tariff Policy 2016 notified by the Central Government further entrust SERCs to fix a minimum percentage for purchase of energy from such sources taking into account availability of such sources in the region and its impact on retail tariffs. Further it prescribes that solar power consumption to reach to the level of 8% of total consumption, by March 2022 or as notified by Central Government.

Accordingly, Government of India (GoI) is giving thrust to develop renewable source of energy with a defined target of 175 GW of renewable energy by 2022.

Keeping the above in view, the Chhattisgarh State Electricity Regulatory Commission, in exercise of the power vested to the Commission under section 86(1)(e) of the Act read with section 181 of the Act, notifies Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2021, for the period 2021-2024.

CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION (RENEWABLE PURCHASE OBLIGATION AND REC FRAMEWORK IMPLEMENTATION) REGULATIONS, 2021

1. Short Title, Extent and Commencement

- 1.1 These Regulations shall be called the Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2021.
- 1.2 These Regulations shall extend to the whole of the State of Chhattisgarh.
- 1.3 These Regulations shall come into force from April 01, 2021.

2. Definitions

- 2.1 In these Regulations, unless the context otherwise requires:

I. "Act" means the Electricity Act, 2003 (36 of 2003), including amendments thereto;

- II. "Captive User" shall have same meaning as defined in rule 3(2) of Electricity Rules 2005;
- III. "Central Agency" means the agency as the Central Commission may designate from time to time;
- IV. "Central Commission" means the Central Electricity Regulatory Commission referred to in subsection (1) of section 76 of the Act;
- V. "Certificate" means the Renewable Energy Certificate (REC) issued by the Central Agency in accordance with the procedures prescribed by it and under the provisions specified in the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010;
- VI. "Commission" means the Chhattisgarh State Electricity Regulatory Commission as referred in subsection (1) of section 82 of the Act;
- VII. "Cogeneration" means a process which simultaneously produces two or more forms of useful energy (including electricity);
- VIII. "Existing RE Project" means the renewable energy generating project declared under commercial operation from a date prior to April 01, 2021;
- IX. "Floor price" means the minimum price as determined by the Central Commission in accordance with Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable energy Certificate for Renewable Energy Generation) Regulations, 2010, as amended from time to time, at and above which the Certificate can be dealt in the power exchange;
- X. "Forbearance price" means the ceiling price as determined by the Central Commission in accordance with the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010, as amended from time to time, within which only the Certificate can be dealt in power exchange;
- XI. "Hydro Purchase Obligation (HPO)" means obligation to procure power from large hydropower projects which came into commercial operation after 08.03.2019 and power from untied capacity (i.e. without PPA) from the project commissioned before 08.03.2019;
- XII. "Large Hydro Projects (LHP)" means hydel power station with an installed capacity above 25 MW, which came into commercial operation after 08.03.2019;
- XIII. "New RE Project" means the renewable energy project whose date of commercial operation shall be on or subsequent to April 01,2021;
- XIV. "Power Exchange" means any exchange operating as the power exchange for electricity in terms of the order(s) issued by the Central Commission;
- XV. "Obligated Entity" means the distribution licensee(s), captive user(s), open access consumer(s) including a open access consumer meeting part of energy from distribution licensee & part through open access (non RE consumption) in the State of Chhattisgarh, who have to mandatorily comply with renewable purchase obligation under these Regulations subject to fulfilment of conditions outlined under Regulation 3;
- XVI. "Quantum of purchase" means the share of electricity from renewable sources required to be purchased by obligated entity(s), expressed on a percentage of its total consumption (LV, HV and EHV sales), as specified in these regulations.
- XVII. "Renewable Energy Sources" means renewable sources such as small hydel, wind, solar, biomass including bagasse, bio fuel cogeneration, urban or municipal waste, large hydro plants (which came into commercial operation after 08.03.2019) and such other sources as recognized or approved by MNRE;
- XVIII. "Small Hydel Plant (SHP)" means hydel power station with an installed capacity 25 MW and below, which includes mini hydel and micro hydel plants;
- XIX. "State" means the State of Chhattisgarh;

XX. "State Agency" means the agency designated by the Commission from time to time to act as the agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these Regulations;

XXI. "Year" means a financial year.

2.2 Words and expressions used and not defined in these Regulations but defined in the Act shall have the meanings assigned to them in the Act. Expressions used herein but not specifically defined in these Regulations or in the Act but defined under any law passed by a legislature and applicable to the electricity industry in the State shall have the meaning assigned to them in such law.

3. Obligated Entities and Operating Period:

The minimum percentage as specified under Regulation 4.3 shall be applicable to all Distribution Licensees in the State of Chhattisgarh as well as to open access consumers and captive users within the State of Chhattisgarh, subject to following conditions:

I. Co-located and non co-located captive user(s) with connected load of 1 MW and above (or such other capacity as may be stipulated by order(s) of the Commission from time to time); shall be subjected to minimum percentage of Renewable Purchase Obligation (RPO) to the extent of its captive consumption met through captive generating plant.

Provided that the end users, who do not full fill the requirements as captive users as defined in Electricity Rules 2005 in a financial year, shall be subjected to minimum percentage of Renewable Purchase Obligation (RPO) to the extent of its consumption met through such power plant.

II. Open access consumer of 1 MW and above (procuring non RE power) not having a supply agreement with distribution licensee in whose area of supply the consumer is located but availing supply of energy under the open access regulations from a person other than the distribution licensee of the area under Section 42(2) of the Act shall be subjected to minimum percentage of RPO to the extent of its energy consumption of non RE power.

Open access consumer of 1 MW and above who has a supply agreement with distribution licensee in whose area of supply the consumer is located and also has supply agreement with a person other than the distribution licensee under Open Access regulations shall also be subjected to minimum percentage of RPO to the extent of his consumption (non RE consumption) met through such other sources source.

Obligated entities consuming power in any year to the extent of total RPO specified under Regulation 4 from fossil fuel based co-generation power plant shall be exempted from the RPO. In case of consumption of obligated entities from such co-generation power plant is less than the total RPO specified under Regulation 4.3, such obligated entities shall be required to fulfil the RPO to the extent of shortfall.

Provided that the Commission may, by order(s), revise the minimum capacity referred to under sub-clause (I), sub-clause (II) and sub-clause (III) above from time to time.

Provided that quantum of renewable power procured/consumed by open access consumers and captive users shall be accounted for meeting RPO.

The RPO framework outlined under these Regulations shall commence from the April 01, 2021 and shall generally be applicable until March 31, 2024 (i.e., upto the financial year 2021-2024). The RPO specified for the Financial Year 2023-24 shall be continued beyond 2023-24 till any revision is effected by the Commission in this regard.

4. Quantum of Cogeneration and Renewable Purchase Obligation (RPO) for Obligated Entity

4.1 Computation of total consumption for RPO for obligated entities shall be as under:-

Sr.	Obligated Entity	Total Consumption
1.	Distribution licensee(s)	LV, HV plus EHV sales
2.	Co-located captive users	Gross generation minus auxiliary consumption minus total energy injected into the grid
3.	Non co-located captive users	Actual energy consumed by captive user from captive generating plant through grid
4.	Co-located end users who do not	Gross generation minus auxiliary consumption minus

Sr.	Obligated Entity	Total Consumption
	qualify as captive user under Electricity Rules 2005	total energy injected into the grid
5.	Open Access consumer	Energy consumed by the Open Access consumer

4.2 All renewable energy purchase directly from generating stations or through trader or through power exchanges shall be considered for meeting the RPO;

For meeting the RPO, renewable power purchases made by the obligated entities under long term power purchase agreements with the biomass based generating plants shall only be considered.

Purchases made by obligated entities from other renewable energy sources such as small hydel, large hydro, wind, solar under long-term, medium-term and short-term arrangements, will be considered for meeting the RPO.

4.3 The defined minimum percentages of RPO are given below in the Table 1.

Table 1: Minimum quantum of electricity in each category to be procured by Obligated Entity as percentage of total consumption

Year	Solar	Non-Solar		Total
		HPO	Others	
2021-22	10.50%	0.18%	10.5%	21.18%
2022-23	11.50%	0.35%	10.5%	22.35%
2023-24	12.50%	0.66%	10.5%	23.66%

Provided that RPO levels for the year 2022-23 & 2023-24 shall be as specified above or MoP/MNRE trajectory to be specified, whichever is higher.

Provided further that the power purchases under the long term power purchase agreements (PPA) for the purchase of renewable energy sources already entered into by the distribution licensees shall be continued till their present validity, even if the total purchases under such agreements exceeds the percentage as specified herein above and any such excess purchase by distribution licensees will be adjusted to meet the its obligation for previous years or for next year.

Provided further that the distribution licensees shall prepare a plan for procurement of power from RE sources under its long-term power procurement plan so as to comply with minimum RPO target as stipulated above.

Provided also that captive users, consuming electricity from captive generating plants (CGP), commissioned before 1st April 2016, shall have RPO target applicable for FY 2015-16, which is 1% solar and 6.25% non-solar.

Provided also that for CGPs commissioned after 1st April 2016 onwards, the RPO levels as specified in Regulations or MoP trajectory, whichever is higher, for the year of commissioning of the CGPs shall be applicable.

Provided also that in case of any augmentation in the capacity of the CGPs, the RPO for augmented capacity shall be the RPO applicable as specified in these Regulations for the year in which the CGPs have been augmented.

4.4 Such power purchase shall be made at tariffs determined by the Commission from time to time for procurement of power by distribution licensees or price discovered through competitive bidding as per the guidelines prescribed by MNRE. Long term purchase already contracted by the distribution licensees as per the orders of the Commission for biomass-based power plants, small hydel plants or solar power plants in the State shall be reckoned for the purpose of the purchase obligation given above.

4.5 While indicating the quantum of purchase from renewable sources, the distribution licensee(s) shall indicate the sources from which purchase of the specified quantum is planned. The distribution licensee(s) shall as far as possible shall source the proposed quantum of electricity from renewable sources within their respective areas of supply. However, non availability of such sources in the

distribution licensee's area will not be accepted as a ground for exemption from the purchase obligation or for reduction in the quantum required to be purchased as per these regulations.

- 4.6 Every "Obligated Entity" may meet its RPO target by way of its own generation or procurement of power from RE developer or by way of power purchase from other licensee or by way of purchase of Renewable Energy Certificate (REC) or by way of combination of any of the above options.
- 4.7 The obligated entity may ensure adequate payment security mechanism for purchase of energy from renewable sources.
- 4.8 The Commission shall specify the renewable purchase obligation for next control period after three years. The purchase obligation as under clause 4.3 above shall be valid till it is revised by the Commission.
- 4.9 Non-compliance of purchase obligation under clause 4.3 shall be treated as a violation of these regulations and punishable under the provisions of Section 142 of the Act.

5. Certificates under the Regulations of the Central Commission

- 5.1 Subject to the terms and conditions contained in these Regulations, the Certificates issued under the Central Electricity Regulatory Commission's (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and its subsequent amendments shall be the valid instruments for the discharge of the mandatory obligations set out in these Regulations for the obligated entity to purchase electricity from renewable energy sources.

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

- 5.2 Subject to such direction as the Commission may give from time to time, the obligated entity shall act consistent with the Central Electricity Regulatory Commission's (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and its subsequent amendments notified by the Central Commission with regards to the procurement of the certificates for fulfilment of the RPO under these Regulations.
- 5.3 The photocopy of Renewable Energy Certificates purchased by the obligated entity from the power exchange in terms of the regulations of the Central Commission mentioned in clause 5.1 and 5.2 of these Regulations shall be produced by the obligated entities to the State agency within 15 days of its purchase.

6. State Agency

- 6.1 Chhattisgarh State Renewable Energy Development Agency (CREDA) is designated as State Agency for accreditation and recommending the renewable energy projects for registration. CREDA shall undertake functions under these Regulations.
- 6.2 The State Agency shall function in accordance with the directions issued by the Commission and shall act in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and its subsequent amendments or enactments.
- 6.3 The State Agency shall develop suitable protocol for collection of information from various sources such as renewable energy generating companies, obligated entities, SLDC, chief electrical inspector etc., on regular basis and compile such information to compute the compliance of RPO target by such Obligated Entities.
- 6.4 The summary statement of RE procurement and RPO compliance by different Obligated Entities shall be published by the State Agency on cumulative basis quarterly by 15th of next month on its website.
- 6.5 The State Agency shall submit quarterly status by 15th of next month to the Commission in respect of compliance of renewable purchase obligation by the obligated entities in the format as stipulated by the Commission and may suggest appropriate action to the Commission, if required, for compliance of the renewable purchase obligation.

- 6.6 The Commission may from time to time fix the remuneration and charges payable to the State Agency by an order towards discharge of its functions under these Regulations if required.
- 6.7 If the Commission observes that the State Agency is not able to discharge its functions satisfactorily, it may by general or special order, and by recording reasons in writing, designate any other agency to function as State Agency as it considers appropriate.
- 6.8 The Commission may by an Order assign any other responsibility to the State agency as it deems fit for the discharge of its function under these regulations.

7. Distribution Licensee(s)

- 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 Regulations notified by the Commission. The estimation of quantum of renewable energy purchase for the ensuing year(s) in Tariff Order shall be in accordance with clause 4.1 and 4.3 of these Regulations. In the event the actual energy consumption (as per clause 4.1 and 4.3) by the distribution licensee being different from that as estimated in the Tariff Order by the Commission, the RPO in MUs shall be deemed to have been modified in accordance with percentages fixed in clause 4.3 of these Regulations.

Illustration:

Suppose if, estimated EHV sales of the distribution licensee A is 3697.17 MU and LV & HV sales is 22370.70 MU for the year 2021-22. RPO is required to be estimated from the quantum 26067.87 MU. From these estimated figures, the solar obligation estimated is 2737.12 MU (i.e. 10.5%), hydro power obligation is 46.92 MU (i.e. 0.18%) and other non-solar obligation is 2737.12 MU (i.e. 10.5%). Now after the end of year 2021-22, if the actual EHV sales is 3600 MU and LV & HV sales is 24400 MU, which is at variance from figures as estimated in the Tariff Order for the year 2021-22, RPO will be derived from quantum 28000 MU. Now according to the actual figures, the modified solar, hydro power and other non-solar obligation for year 2021-22 will be 2940 MU, 50.4 and 2940 MU respectively.

- 7.2 Each distribution licensee shall have to submit necessary details regarding total purchases and consumption of electricity and purchase of energy from renewable sources for fulfilment of RPO on monthly basis to the State Agency.
- 7.3 Any excess purchase of renewable energy or the REC procured by distribution licensee(s) for meeting the RPO in any year shall be considered for meeting the RPO for the subsequent years only after meeting the cumulative deficit (backlog) RPO of previous years. Further, after meeting the previous years' shortfalls, surplus left, if any, may be carried over to next year for meeting the RPO of the next year only.
- 7.4 If the distribution licensee fails to fulfil the minimum quantum of purchase from renewable energy sources i.e. RPO, it shall be liable for action as per clause 9 of these Regulations.

Provided that, while monitoring the RPO compliance of the distribution licensees, the Commission shall consider its impact on the retail tariff of the consumers of the State.

8. Captive User(s) and Open Access Consumer(s)

- 8.1 The quantum of RPO mentioned in clause 4.3 of these Regulations shall be applicable to captive user(s) and open access consumer(s) from the April 01, 2021. Captive user(s) and open access consumer(s) may fulfil its RPO through the Renewable Energy Certificates as provided in clause 4 above.
- Provided that captive user(s) and open access consumers consuming power in any year to the extent of RPO specified under Regulation 4.3 from fossil fuel based co-generation power plant shall be exempted from the RPO.
- 8.2 Every Captive user(s) and open access consumer(s) shall have to submit necessary details regarding total consumption of electricity and purchase of energy from renewable sources for fulfilment of RPO on monthly basis to the State Agency.
- 8.3 Any excess purchase of renewable energy or the REC procured by captive user(s) and open access consumer(s) for meeting the RPO in any financial year shall be considered for meeting the RPO for the next financial year.

8.4 If the Captive user(s) and Open Access consumer(s) are unable to fulfil the criteria, the shortfall of the targeted quantum would attract compensation as per clause 9 of these Regulations.

8.5 In case obligated entities are different units of single legal entity and located at different places within the State, combined RPO purchased by such legal entity shall be reckoned for the purpose of meeting RPO.

9. Consequences of default

9.1 If an obligated entity does not fulfil the renewable purchase obligation as provided in these Regulations during any financial year, the Commission may direct the Obligated Entity to maintain a separate fund for such amount as the Commission may determine on the basis of the shortfall in units of RPO and the forbearance price decided by the Central Commission.

Provided that the fund so created shall be utilised, as may be directed by the Commission.

Provided 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 that the Commission may empower an officer of the State Agency to procure required number of certificates to the extent of the shortfall in the fulfilment of the obligations, out of the amount in the fund.

Provided also that the obligated entity shall be in breach of its RPO Obligation, if it fails to deposit the amount directed by the Commission within specified time from the communication of the direction.

Provided that in case of any genuine difficulty in complying with the renewable purchase obligation because of non-availability of power from renewable energy sources or the RECs, the obligated entity can approach the Commission to carry forward the compliance requirement to the next year only.

Provided further that where the Commission has consented to carry forward of compliance requirement, the provision regarding creation of such fund as specified above shall not be applicable.

10. Priority for Grid Connectivity

10.1 Any person generating electricity from renewable energy sources, irrespective of installed capacity, shall have priority for open access, connectivity with distribution system or transmission system as the case may be. On an application from such person, the transmission licensee or distribution licensee, as the case may be, shall provide appropriate interconnection facilities, as far as feasible, before commissioning of the renewable energy project. Such interconnection shall follow the grid connectivity standards as specified in the Indian Standard Grid Code, State Grid Code and/or the manner prescribed by the Central Electricity Authority.

11. Renewable Energy Pricing

11.1 All the new renewable energy projects commissioned during the Control Period as specified above, shall have an option of following either the tariff structure and other conditions as stipulated in the Chhattisgarh State Electricity Regulatory Commission (Terms and conditions for determination of generation tariff and related matters for electricity generated by plants based renewable energy sources) Regulations, 2019 and its review/amendments from time to time and/or adopt the REC mechanism for pricing of the electricity generated from the project.

Provided that such a renewable energy generating plant having entered into a long term power purchase agreement for sale of electricity at a preferential tariff shall not, in case of premature termination of the agreement, be eligible for participating in the Renewable Energy Certificate (REC) scheme for a period of three years from the date of termination of such agreement or till the scheduled date of expiry of power purchase agreement whichever is earlier, if any order or ruling is found to have been passed by an Appropriate Commission or a competent court against the generating company for material breach of the terms and conditions of the said power purchase agreement.

Provided that such projects that opt for either preferential tariff or REC mechanism or the mix there of, shall have to continue with the selected pricing mechanism for the entire Tariff Period or until validity of PPA; whichever is later, as outlined under Chhattisgarh State Electricity Regulatory Commission (Terms and conditions for determination of generation tariff and related matters for electricity generated by plants based renewable energy sources) Regulations, 2012 and its review/amendments from time to time.

Provided further that such new renewable energy project shall exercise its choice for selection of appropriate Pricing Mechanism prior to execution of the PPA with distribution licensee or with open access consumer, as the case may be.

- 11.2 The REC mechanism entails pricing of two components, namely, electricity component and renewable energy component or REC component representing environmental attributes of renewable energy generation. For the purpose of the Operating Period from FY 2021-22 to FY 2023-24, the effective electricity component price for the year shall be equivalent to Pooled Cost of power purchase excluding renewable energy of the host Utility for the previous year in whose area of jurisdiction such RE generation project is situated, whereas, the price of RECs shall be as discovered in the Power Exchanges.

Explanation - for the purpose of this Regulation, "Pooled Cost of Power Purchase" means the weighted average pooled price at which the distribution licensee has purchased the electricity including cost of self generation, if any, in the previous year from all the long-term and short-term energy suppliers, but excluding those based on renewable energy sources, as the case may be.

Provided that the Central Commission may, in consultation with the Central Agency and Forum of Regulators, from time to time provide for the floor price and forbearance price separately for solar and non-solar RECs (renewable energy component);

Provided further that, with the progressive development of the electricity sector, the pricing methodologies for Electricity component and REC shall be reviewed at periodic intervals as may be considered by the Commission.

- 11.3 Tariff rate, tariff structure and other conditions for existing renewable energy project(s) have already been covered under respective renewable energy Tariff Orders issued by the Commission and the same shall continue to be operative as amended from time to time during the Operating Period, FY 2021-22 to FY 2023-24.

- 11.4 The consumers procuring power from RE sources through open access route shall be required to pay cross-subsidy surcharge, if any, as per conditions of the open access regulations/or Order as specified by the Commission.

12. Power to remove difficulties

- 12.1 If any difficulty arises in giving effect to these Regulations, the Commission may, of its own motion or otherwise, by an order and after giving a reasonable opportunity to those likely to be affected by such order, make such provisions, not inconsistent with these regulations, as may appear to be necessary for removing the difficulty.

13. Power to relax

- 13.1 The Commission may by general or special order, for reasons to be recorded in writing, relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

By order of the Commission

Sd/-

(S.P. Shukla)
Secretary.