



**TELANGANA STATE ELECTRICITY REGULATORY COMMISSION**  
5<sup>th</sup> Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500004

**Dated: 01.04.2022**

**Present**

Sri T.Sriranga Rao, Chairman  
Sri M.D.Manohar Raju, Member (Technical)  
Sri Bandaru Krishnaiah, Member (Finance)

**In the matter of Telangana State Electricity Regulatory Commission Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/ Renewable Energy Certificates) Regulation, 2022 – Statement of Reasons thereof**

**STATEMENT OF REASONS**

**Introduction:**

Section 86(1)(e) of the Electricity Act, 2003 provides for promotion of renewable sources of energy including co-generation by providing suitable measures for connecting with the grid and sale of electricity to any person, as also specify the percentage of total consumption to be purchased in the area of distribution licensees.

2) In order to achieve this objective, the Commission had notified a Regulation setting forth the target and other requirements in compliance of the above provisions vide the Regulation being the Telangana State Electricity Regulatory Commission Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/Renewable Energy Certificates) Regulation, 2018 (Regulation No.2 of 2018).

3) The above said Regulation was subsisting for the period of four (4) years which shall end on 31.03.2022. Therefore, framing of fresh Regulation is necessitated to take further steps in the matter of providing mechanism as required under Section 86(1)(e) of the Act, 2003.

4) In this regard, it may be relevant to notice the relevant provisions of the Tariff Policy, 2016 as notified by the Government of India exercising powers under Section 3 of the Electricity Act, 2003.

*“(1) Pursuant to provisions of Section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Cost of purchase of renewable energy shall be taken into account while determining tariff by SERCs. Long term growth trajectory of Renewable Purchase Obligations (RPOs) will be prescribed by the Ministry of Power in consultation with*

*MNRE. Provided that co-generation from sources other than renewable sources shall not be excluded from the applicability of RPOs.*

- (i) 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 this 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.*
- (ii) Distribution Licensee(s) shall compulsorily procure 100% power produced from all the Waste-to-Energy plants in the State, in the ratio of their procurement of power from all sources including their own, at the tariff determined by the Appropriate Commission under Section 62 of the Act.*
- (iii) It is desirable that purchase of energy from renewable sources of energy takes place more or less in the same proportion in different States. To achieve this objective in the current scenario of large availability of such resources only in certain parts of the country, an appropriate mechanism such as Renewable Energy Certificate (REC) would need to be promoted. Through such a mechanism, the renewable energy based generation companies can sell the electricity to local distribution licensee at the rates for conventional power and can recover the balance cost by selling certificates to other distribution companies and obligated entities enabling the latter to meet their renewable power purchase obligations. The REC mechanism should also have a solar specific REC.*
- (iv) Appropriate Commission may also provide for a suitable regulatory framework for encouraging such other emerging renewable energy technologies by prescribing separate technology based REC multiplier (i.e. granting higher or lower number of RECs to such emerging technologies for the same level of generation). Similarly, considering the change in prices of renewable energy technologies with passage of time, the Appropriate Commission may prescribe vintage based REC multiplier (i.e., granting higher or lower number of RECs for the 3 of 11 same level of generation based on year of commissioning of plant)."*

5) Accordingly in the matter of framing a fresh regulation, the Commission in exercise of powers conferred on it under Sections 61, 66, 86(1)(e) and 181 of the Electricity Act, 2003 (Central Act No.36 of 2003) and all other powers enabling it in this behalf made the Draft Telangana State Electricity Regulation Commission Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/ Renewable Energy Certificates) Regulation, 2022 [hereinafter referred as 'Draft Regulation'] and issued Press Release on 09.03.2022 inviting suggestions, comments and objections on the Draft Regulation on or before 30.03.2022, before 5.00 pm from all the interested persons/stakeholders either in writing addressed to the Secretary, TSERC or by email to [secy@tserc.gov.in](mailto:secy@tserc.gov.in). The Press Release and the Draft Regulation were hosted on the website of the Commission ([www.tserc.gov.in](http://www.tserc.gov.in))

6) In response, the Commission has received written suggestions/comments from eight (8) stakeholders. The list of stakeholders who have submitted the written comments, suggestions and objections is enclosed at Annexure-I. After due consideration of the comments, suggestions and objections received, the Commission has finalized the Regulation, 2022 on Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/Renewable Energy Certificates).

7) The relevant clauses of the Draft Regulation, deliberations on the comments, suggestions and objections expressed by the stakeholders and the reasons for decisions of the Commission are given in the succeeding paragraphs. The clause numbers given in this Statement of Reasons are those mentioned in the Draft Regulation.

## **1 With regard to General matters of Draft Regulation**

### **1.1 Public Hearing**

#### **Stakeholders' suggestions/comments:**

1.1.1 The Commission may conduct a Public Hearing in the matter.

#### **Commission's view:**

1.1.2 The Commission has given ample opportunity to all the stakeholders for furnishing comments, suggestions and objections and hence, does not find the requirement to conduct a Public Hearing in the matter. Moreover, after due consideration of the comments, suggestions and objections received from the stakeholders, the Commission has finalized the Regulation, 2022 on Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/Renewable Energy Certificates).

## **2 With regard to clause (2) 'Definitions' of Draft Regulation**

### **2.1 Commission's proposal of clause 2(1)(f) in Draft Regulation:**

2.1.1 2(1)(f) **'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 issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 as amended from time to time;

#### **Stakeholders' comments, suggestions and objections:**

2.1.2 Ministry of Power (MoP) has declared large hydro power projects including pumped storage projects as renewable energy source and also specified HPO to cover the large hydro power projects commissioned after 08.03.2019. MoP vide its order dated 29.01.2021 mandated CERC to develop Hydro Energy Certificate mechanism through Regulations to facilitate compliance of Hydro Purchase Obligation (HPO). Therefore, the definition of Certificate may be modified as under:

**'Certificate'** the Renewable Energy Certificate (REC) and Hydro Energy Certificate (HEC) 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 issue of Renewable Energy Certificate

for Renewable Energy Generation) Regulations, 2010 as amended from time to time.

**Commission's view:**

- 2.1.3 The Commission, taking into consideration of the statutory mandate and with the objective of balancing the interest of all the stakeholders at large, has prescribed the RPPO trajectory for the period from FY 2022-23 to FY 2026-27 and in doing so the Commission does not find it prudent to specify HPO at this stage due to uncertainty in the availability of adequate resources for fulfilling the obligation. As such, the Commission is of the view that no modification is required for incorporating the Hydro Energy Certificate (HEC) in the definition of 'Certificate' and the Commission decided to retain the clause 2(1)(f) as proposed in the Draft Regulation, however for brevity the term '*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*' is replaced with newly defined term 'CERC Regulation, 2010'.

**2.2 Commission's proposal of clause 2(1)(m) in Draft Regulation:**

- 2.2.1 2(1)(m) '**Hybrid Source**' means two or more Renewable Energy Sources used together to provide increased system efficiency as well as greater balance in energy supply;

**Stakeholders' comments, suggestions and objections:**

- 2.2.2 The clause 2(1)(m) may be modified as under:

*'Hybrid Source' means two or more Renewable Energy Sources used together or any single Renewable Energy Source coupled with any Storage Technology (Battery, Pumped Storage, etc.) to provide increased system efficiency as well as greater balance in energy supply;*

**Commission's view:**

- 2.2.3 The proposed definition 2(1)(m) in the Draft Regulation has been retained with slight modification to bring more clarity by renaming the definition as '*Renewable Hybrid Source*'.

**2.3 Commission's proposal of clause 2(1)(o) in Draft Regulation:**

- 2.3.1 2(1)(o) '**Non-Solar Sources**' means Renewable Energy Sources other than Solar Energy Sources and included hydro of all installed capacities;

**Stakeholders' comments, suggestions and objections:**

- 2.3.2 TSNPDCL suggested that the clause 2(1)(o) may be modified as under:

*"Non-Solar Sources' means Renewable Energy Sources other than Solar Energy Sources and includes energy procured from Battery Energy Storage Systems (BESS) & Hydro of all installed capacities;*

**Commission's view:**

- 2.3.3 The proposed definition 2(1)(o) in the Draft Regulation has been retained with slight modification to bring more clarity by removing the term '*and included hydro of all installed capacities*'

**2.4 Commission's proposal of proviso to clause 2(1)(p) in Draft Regulation:**

- 2.4.1 2(1)(p) '**Obligated Entity**' is an entity that is mandated to fulfil renewable

*purchase obligation under this Regulation subject to fulfilment of conditions outlined under clause 3 hereof and for the purposes of this Regulation shall be the following:*

... .. :

Provided that an obligated entity consuming power in any year to the extent of total RPPO specified under clause 3 hereof from fossil fuel based co-generation power plant shall be exempted from RPPO. In case the consumption of an obligated entity from such co-generation power plant is less than the total RPPO, such obligated entity shall be required to fulfil the RPPO to the extent of shortfall;

**Stakeholders' comments, suggestions and objections:**

2.4.2 The proviso to clause 2(1)(p) may be modified as under:

*“Provided that a captive consumer consuming power in any year to the extent of total RPPO specified under clause 3 hereof from captive fossil fuel based co-generation power plant shall be exempted from RPPO. In case the consumption of an obligated entity from such co-generation power plant is less than the total RPPO, such obligated entity shall be required to fulfil the RPPO to the extent of shortfall;”*

**Commission's view:**

2.4.3 Any eligible obligated entity including the captive user shall be treated at par with respect to the proviso to clause 2(1)(p) and hence the proposed proviso to clause 2(1)(p) in Draft Regulation has been retained.

**2.5 Commission's proposal of clause 2(1)(r) in Draft Regulation:**

2.5.1 2(1)(r) ***'Pooled Cost of Power Purchase'*** means the weighted average pooled price at which the distribution licensee has purchased electricity including the cost of self-generation, if any, in the previous Financial Year from all the energy suppliers on long-term and medium-term basis, but excluding the energy purchased from renewable energy sources;

**Stakeholders' comments, suggestions and objections:**

2.5.2 In light of reducing prices of solar and wind power, being discovered through competitive biddings, irrespective of the purpose, proposed pooled cost of power purchase in the Draft regulation is outdated and irrational.

**Commission's view:**

2.5.3 The Commission has taken note of the stakeholder's submission regarding the reducing prices of solar and wind power. The Commission is of the view that the pooled cost of power purchase shall be payable to the generators in accordance with the provisions of the PPAs approved by the Commission. In accordance with clause 7(2)(f) of this Regulation, each PPA has to be submitted for the Commission's consent. The Commission shall consider the market trends of prices, amongst other criteria, for consenting to any PPA. Hence, the Commission decided to retain the clause 2(1)(r) as proposed in Draft Regulation.

**2.6 Commission's proposal of clause 2(1)(u) in Draft Regulation:**

2.6.1 2(1)(u) ***'Renewable Hybrid Energy Project'*** means a renewable energy project that produces electricity from a combination of renewable

*energy sources having a single point of injection or maximum two points of injection into the grid;*

**Stakeholders' comments, suggestions and objections:**

2.6.2 The clause 2(1)(u) may be modified as under:

*'Renewable Hybrid Energy Project' means a renewable energy project that produces electricity from a combination of renewable energy sources or single renewable energy source coupled with any Storage Technology (Battery, Pumped Storage, etc.) having a single point of injection or maximum two points of injection into the grid;*

**Commission's view:**

2.6.3 The proposed definition 2(1)(u) in the Draft Regulation has been retained.

**2.7 Commission's proposal of clause 2(1)(v) in Draft Regulation:**

2.7.1 2(1)(v) *'Renewable Energy Sources or RES' means renewable sources of energy such as water, wind, sunlight, biomass, bagasse, municipal solid waste and other such sources as approved by the MNRE;*

**Stakeholders' comments, suggestions and objections:**

2.7.2 Hon'ble APTEL in its Appeal Nos.57 of 2009, 54 of 2012, 59 of 2012, 125 of 2012, 278 of 2015, 322, 333 of 2016 had clarified that the captive entities who meet a certain percentage of energy from their captive co-generation plant using any fuel, may be exempted from RPPO obligation to the extent of such consumption on the premise that under section 86(1)(2) of the Act, 2003, co-generation along with generation from renewable energy sources needs to be promoted.

2.7.3 As per Section 86(1)(e) of the Act, 2003, there are two categories of electricity generators i.e., co-generators and generators of electricity through renewable sources of energy. The intent of including the words co-generation and generation of electricity from renewable sources was to ensure that both the generators are entitled for the benefit of the provisions of Section 86(1)(e) of the Act, 2003. Co-generation is required to be promoted/encouraged as per Section 86(1)(e) and such co-generation plant cannot be compelled to purchase energy from a renewable source irrespective of the nature of fuel used. The Commission may consider the energy consumed from WHRS plant through co-generation process for setting off, the RPPO requirement qua consumption by the captive consumers from other conventional sources. Therefore, the definition of renewable energy sources may be modified as under:

*'Renewable Energy Sources' means renewable sources such as co-generation plants including Waste Heat Recovery System (WHRS) plant irrespective of the type of fuel utilised, mini hydel, small hydro power projects ( $\leq 25$  MW), large hydro power projects include pumped storage projects ( $> 25$  MW) (PSP), municipal waste, industrial waste, biomass, wind, solar including its integration with combined cycle, biofuel co-generation, geo-thermal, tidal and such other sources as recognised or approved by MNRE/MoP;*

**Commission's view:**

2.7.4 The Commission has adopted the definition of 'Renewable Energy Sources'

from the CERC Regulation viz., CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020. Further, the Commission in its order dated 14.03.2022 in O.P.No.2020 has dismissed the petition filed by M/s Navabharat Ventures Limited, seeking to exempt the petitioner from the RPPO by considering the consumption of power generated from its cogeneration units, through Waste Heat Recovery System (WHRS) received from flue gases, in line with energy generation through Renewable Energy Sources. The views of the Commission expressed in the said order is reproduced as under:

6. *The Commission had earlier considered the aspect of compliance of RPPO in terms of Regulation No.2 of 2018 by the obligated entities. The said proceedings came to be initiated pursuant to a report filed by SLDC setting forth non-compliance of the RPPO by certain entities. While dealing with the matter, the Commission had occasion to consider the issue of treating WHRS as a renewable source. In doing so, the Commission had observed in the said order as below:*

*O.P.No.31 of 2020*

*“The submission of obligated entities which meet their complete/partial electricity consumption through their captive co-generation or WHR submitted their representation as under: (i) M/s Nava Bharat Ventures Limited- This obligated entity is a manufacturer of Ferro Alloy. It operates three (3) captive thermal power generating units with aggregate capacity of 114 MW and two (2) WHR plants from flue gases of submerged electric arc furnaces which generate energy upto 5 MW for captive use at its factory premises. It submitted that the entire requirement of the electricity for its Ferro Alloys plant is being met from own captive generating units and excess generated electricity is being sold to DISCOMs and others under Open Access. It also submitted that it has filed O.P.No.20 of 2020 before the Commission for exemption from RPPO under Regulation 2 of 2018 in view of consumption of power generated from its co-generation units through waste heat received from flue gases. Relying upon the Judgment of the Hon’ble Appellate Tribunal for Electricity (APTEL) in Appeal No. 57 of 2009 dated 26.04.2010 (Century Rayon case) and requested the Commission for exemption from RPPO compliance.*

*... ..*

*Commission’s View*

33. *The Commission has noted the submission of the obligated entities and stakeholders for exemption from RPPO compliance and considering the energy consumed from its co-generation/WHR plant for setting off RPPO requirement.*

34. *The Commission is of the view that as per the Regulation No. 2 of 2018, any captive consumer consuming electricity from co-generation from conventional sources is considered as an obligated entity. Hence the Commission does not find any merit in the contention for exemption from being an obligated entity.*

35. *The Hon’ble APTEL in its Judgment in the Appeal No. 278 and 293 of 2015 and Appeal No. 23, 24 and 62 of 2016 dated 02.01.2019, has ruled as below:*

*“52. ... .. The Rajasthan Electricity Regulatory Commission has also considered the judgment of this Tribunal, as stated supra, in cases of Emami Paper Mills Ltd; Vedanta Aluminium Ltd; Hindalco Industries Ltd. and*

*India Glycols Ltd; and held that: "In view of the settled legal position, Commission is of the considered view that no RPO liability shall be fastened on such generators who generate electricity through Waste Heat Recovery for their own purpose and consume it, subject to the condition that generation from Waste Heat Recovery generation plant is in excess of the total RPO required to be complied by the CPP. If generation is lesser than the requirement to the extent of shortfall general rule applies. So far as distinction tried to be made by RREC between solar and non-solar for the purpose of compliance, in the Commission's view does not merit acceptance. Once Captive Power Plant generating electricity through Waste Heat Recovery, cannot be fastened with RPO liability under Section 86(1)(e), there is no question of imposition of solar RPO also as the same falls in the category of Renewable Energy."*

53. *It is rightly pointed out by the counsel for the Appellant that, the judgment of the Hon'ble Apex Court actually covered co-generators as well has got some substance and it is highly unlikely that the Rajasthan Electricity Regulatory Commission, whose Regulations were under challenge before the Hon'ble Apex Court, would itself grant relief to the co-generators before it relying on the judgment of this Tribunal in Century Rayon case. Therefore, we hold that a cogeneration facility irrespective of fuel is to be promoted in terms of section 86(1)(e) of the Electricity Act, 2003; an entity which is to be promoted in terms of section 86(1)(e) of the Electricity Act, 2003 cannot be fastened with renewable purchase obligation under the same provision; and as long as the co-generation is in excess of the renewable purchase obligation, there can be no additional purchase obligation placed on such entities."*

36. *Based on the above, the Commission is of the view that any consumer consuming electricity from captive co-generation plant or captive co-generation plant using WHR unit beyond its RPPO target for any specific year as per the Regulation No.2 of 2018, shall not be required to purchase additional renewable energy/RECs for that year. In case any consumer consuming electricity from captive co-generation plant or captive co-generation plant using WHR lesser than its RPPO target, the remaining consumption till the RPPO target shall be met through purchase of renewable energy/RECs to meet the RPPO target.*

37. *In view of the above, the Commission directs TSSLDC to re-compute the RPPO compliance for FY 2018-19 for all obligated entities which consume electricity through captive co-generation plant or captive co-generation plant using WHR and submit the relevant details of such computation along with the report on the status of compliance of RPPO for FY 2019- 20. The Commission will review the compliance of RPPO by these obligated entities for FY 2018-19 at the time of determination of compliance of RPPO for FY 2019-20."*

*The observations made above were in the context of ascertaining the RPPO*

compliance by the obligated entities and to settle the aspect of compliance and nothing more. It itself cannot constitute a declaration or exemption as sought by the petitioner in this petition. Either way, the above finding cannot be treated as granting relief to the petitioner as sought by it in this petition, as the proceedings referred to above, had a limited scope in the context of compliance RPPO by obligated entities upon a report made over to the Commission by the SLDC. This submission that there is already a finding on the prayer of the petitioner, is inappropriate and incorrect.

7. The counsel for petitioner strenuously contended and vehemently relied on the orders passed by the Hon'ble ATE in Appeal Nos.57 of 2009, 54 of 2012, 322 along with 333 of 2016 and 146 of 2017. The Hon'ble ATE rendered findings with regard to treating cogeneration plants as renewable source and to be considered as being part of compliance of RPPO. The relevant extracts are already placed by the parties in their respective pleadings, as such, they are not reproduced here. With due respect, none of the orders of the Hon'ble ATE were in the context of a regulation, which provided for generic definition of obligated entities as such the same are not relevant and appropriate. Thus, they do not constitute a binding precedent insofar as facts and circumstances of this case.

8. The counsel for petitioner placed reliance on the judgments of the Hon'ble ATE referred above, but as also stated that appeals have been filed in certain of the orders before the Hon'ble Supreme Court, which are pending consideration. In that view of the matter, the findings reached by the Hon'ble ATE cannot be treated as final word on the aspect of treating the petitioner's WHRS as a renewable source under cogeneration. In only one matter an appeal filed before the Hon'ble Supreme Court by the Karnataka Commission had been dismissed on the ground of delay, but not on merits. It cannot be said that the finding is conclusive, as in certain other appeals in Civil Appeal No.6797 of 2013 filed by the Gujarat Commission, is pending consideration before the Hon'ble Supreme Court. Accordingly, the Commission finds that in the absence of clear finding by the appellate courts, the prayer sought by the petitioner cannot be acceded to.

9. The Commission notices that an appeal had been filed before the Hon'ble Supreme Court in the matter of M/s Emami Paper Mills Limited in Civil Appeal No(s). 5466 / 2013 and it also refers to Civil Appeal Nos.5467 / 2013 and 6797 / 2013. Thus, it is clear that the finding rendered by the Hon'ble ATE is subject matter of appeals pending before the Hon'ble Supreme Court. As such, in the absence of final verdict, this Commission cannot rely on the judgments as referred by the petitioner. Therefore, the petitioner is not entitled to any relief at this point of time.

10. The counsel for petitioner relied on several orders passed by the APERC in several cases filed before it from time to time on the aspect that is involved in the present petition. Suffice it to state, the findings were rendered based on the judgment of the Hon'ble ATE, which by themselves have not attained finality, as such, cannot be relied upon. Further, the reference made to the orders of the APERC cannot constitute a binding precedent for this Commission to rely upon. Neither they are applicable in the context of the regulation made by the Commission nor based on a conclusive reasoning as affirmed by the Hon'ble Supreme Court. At the most, they are of only persuasive value to this Commission. It is also noticed that the pleadings are made as if the petition is before the APERC and that its findings earlier in several proceedings need to be followed. Alas, the petitioner has failed to distinguish between the Commissions" as to which Commission it is making submissions thereof. For all the reasons mentioned above, this contention of

the petitioner does not succeed.

11. The Hon'ble Supreme Court had occasion to consider the issue of compliance of RPPO and the treatment of obligated entities including captive power units. The relevant observations are extracted below.

“ ... .. The impugned Regulations fall within the four corners of the Act of 2003 as well as Electricity Policy, 2005. The object of imposing RE Obligation is protection of environment and preventing pollution by utilising Renewable Energy Sources as much as possible in larger public interest.

41. Our attention was drawn to the annual report of 2003 of Central Electricity Authority of India (CEA). As per the report, the installed capacity is 107973 MW in the country, the breakup of which is as under: -

Hydro Power Generation	Thermal Power Generation	Nuclear Power Generation	Wind Power Generation
26910 MW (24.9%)	76607 MW (71%)	2720 MW (2.5%)	1736 MW (1.6%)

Out of thermal power generation, coal comprises 63801 MW, (gas 11633 MW) and (diesel-1173 MW) representing 59.1%, 10.8% and 1.1.% of the total installed capacity respectively. The Coal dominates the Thermal Power Generation which results in Green House Gases resulting in global warming. The said facts were brought to our notice that the same would certainly justify the case of the RERC in framing the impugned Regulation to achieve the object of the Act and the Constitution by imposing RE obligation on the captive gencos.

... ..  
50. Article 51A(g) of the Constitution of India cast a fundamental duty on the citizen to protect and improve the natural environment. Considering the global warming, mandate of Articles 21 and 51A(g) of the Constitution, provisions for the Act of 2003, the National Electricity Policy of 2005 and the Tariff Policy of 2006 is in the larger public interest, Regulations have been framed by RERC imposing obligation upon captive power plants and open access consumers to purchase electricity from renewable sources.”

12. The Hon'ble High Court of Andhra Pradesh as it then was while disposing of a writ petition filed by M/s Agri Gold Projects Limited vs. APERC (erstwhile) had observed as below:

“After hearing the learned counsel for the parties and after perusing the material papers placed before this Court and in particular, the orders passed by the APSERC, this Court is of the view that the Power Purchase Agreement between the petitioner and the respondent is governed by the factors, which are in the realm of two separate agencies. So far as the mode of generation of power is concerned, it is totally within the scope of NEDCAP. The nature of fuel and the capacity of generation in the particular area through that process are to be determined by the NEDCAP. ... .. While dealing with the applications or while passing the order in O.P.262 of 2003 or in the review petition, the APSERC has taken up on itself, to assess certain factors, which are totally in the realm of the NEDCAP. For example, the age of the plantation, the nature of the fuel, its utility for additional captivity etc., are the matters exclusively within the scope of the NEDCAP, whereas, they were extensively dealt with by the

APSERC for rejecting the application of the petitioner. It is not as if the NEDCAP had rejected the case of the petitioner and the same is taken into account by the APSERC. This Court is of the view that the matter needs to be considered afresh by the APSERC confining itself to the requirement of the respondent to purchase additional power and fixation of the terms of the contract in the event of enhancement of the generating capacity. As regards the other aspects namely, the category of Biomass, the utility of the plantation grown by the petitioner etc., are concerned, the APSERC shall have to take the opinion expressed by the NEDCAP.”

As seen from the observations in the above judgment of the Hon'ble High Court of Andhra Pradesh as it then was, it is clear that the status of renewable source or not has to be decided by the renewable energy development authority and in the case of Telangana State, it is the Telangana State Renewable Energy Development Corporation (TSREDCO). No material that the petitioner's unit is a renewable source has been placed before the Commission so as to treat it for the purpose of RPPO. In view of the burden cast on the TSREDCO or like agency, this Commission is constrained not to venture into the field of declaring the petitioner's unit to be a renewable source and thereby treat it for ascertaining RPPO compliance. In these circumstances, this Commission is of the view that declaring or otherwise of the petitioner's WHRS unit to be a renewable source.

13. The counsel for petitioner relied on the communication made by the Ministry of Environment and Forest, Government of India. In its Office Memorandum dated 23.01.2019, the Ministry had exempted certain power plants from environmental clearance. In this regard, the appropriate content of the said memorandum is extracted below:

“3. The spirit of exempting requirement of environmental clearance for the Thermal Power Plant using waste heat boilers without any auxiliary fuel vide S.O.1599(E) dated 25<sup>th</sup> June, 2014 is to promote energy conservation, reduce greenhouse emissions and in larger interest of the environment including climate change.

4. In view of the above, it is hereby clarified that setting up new or expansion of captive power plants employing WHRB without using any auxiliary fuel, in the existing Cement Plants, Integrated Steel Plants, Metallurgical Industries (Ferrous and Nonferrous) and other industries having potential for heat recovery, does not attract the provisions of EIA Notification 2006, read with subsequent amendments therein.”

It is clear from the above that the said communication was issued in the context of environmental issues and not with reference to generation and consumption of the electricity from such source. It is also noticed that it is an office order and had no reference to any statutory provisions under which it was sought to be issued. Thus, this communication cannot be the basis for this Commission to declare or treat the petitioner's WHRS as a renewable source. The contention of the petitioner, therefore, stands to be negated.

14. Coming to the aspect of satisfying that it is a renewable source the pleadings nowhere contemplated that the Ministry of New and Renewable Energy has ever identified the WHRS to be a renewable source. Inasmuch as the regulation framed by the Commission has defined renewable energy sources to be a few of them along with such other sources as approved by MNRE. As such, this Commission cannot in the absence of any material in

support of the claim of the petitioner, would venture to declare a particular source to be renewable source. Thus, the petitioner has not made out any case for treating its WHRS plant as a renewable source for being considered under RPPO.”

In view of the above, the proposed definition 2(1)(u) ‘Renewable Energy Sources’ in the Draft Regulation has been retained with slight modification to bring more clarity by adding the terms in brackets viz., ‘(Small Hydel – Hydro Power projects with a station capacity upto and including 25 MW)’ after the word ‘water’.

### **3 With regard to clause 3(1) in Draft Regulation:**

#### **3.1 Commission’s proposal of clause 3(1) in Draft Regulation**

3.1.1 3(1)(i) *‘Every Obligated Entity shall purchase from Renewable Energy Sources a minimum quantity (in kWh) of electricity expressed as a percentage of its total consumption of energy, during FY 2022-23 to FY 2026-27 as specified in this table below:*

<b>Year/RPPO</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
Solar	7.50	8.00	9.00	10.00	11.00
Non-Solar	1.00	1.25	1.50	1.75	2.00
<b>Total</b>	<b>8.50</b>	<b>9.25</b>	<b>10.50</b>	<b>11.75</b>	<b>13.00</b>

*Provided further that the obligation will be on total consumption of electricity by an Obligated Entity excluding consumption met from Renewable Energy Sources:*

*Provided that on achievement of Solar RPPO compliance to the extent of 85% and above, remaining shortfall if any, can be met by excess Non-Solar Energy purchased beyond specified Non-Solar RPPO for that particular year:*

*Provided further that on achievement of Non-Solar RPPO compliance to the extent of 85% and above, remaining shortfall if any, can be met by excess Solar Energy purchased beyond specified Non-Solar RPPO for that particular year;*

#### **Stakeholders’ comments, suggestions and objections:**

3.1.2 It is a welcome initiative that the Commission has proposed to revise the RPPO trajectory with the increasing nationwide green energy targets. The proposed trajectory and compliance mechanism would give thrust to the development of renewable energy portfolio of the State as a whole.

3.1.3 The very purpose of RPPO was to encourage the renewable energy under the presumption that the distribution licensees may not prefer to purchase high cost renewable energy on long-term basis. This presumption has outlived its relevance. Irrespective of RPPO, the distribution licensees can enter into PPAs for purchase of renewable energy. As such the system of RPPO is outdated.

3.1.4 The proposed RPPO for the period from FY 2022-23 to FY 2026-27 appears to be relatively moderate in comparison to the RPPO for FY 2021-22. However, the non-solar RPPO is proposed to increase by one hundred percent during the period from FY 2022-23 to FY 2026-27. The basis for the

proposed RPPO is not clear from the Draft Regulation. The distribution licensees have already achieved renewable energy purchase to the extent of 10% which is the RPPO proposed for FY 2025-26 in the Draft Regulation.

3.1.5 The potential for availability of renewable energy sources other than solar and hydel is very limited in the State. Experience has shown that specifying solar and non-solar RPPO separately is detrimental to the interest of consumers. The distribution licenses have fulfilled solar RPPO but had not fulfilled non-solar RPPO for FY 2021-22. Citing the same, a proposal has been submitted before the Commission for approval of power procurement from a bagasse based co-generation plant at higher tariffs. Further, the Draft Regulation provides for continuation of purchases from the existing Power Purchase Agreements (PPAs) even if such purchases are over and above that required for fulfilment of RPPO. The tariffs of non-solar energy sources such as industrial/municipal waste, biomass, bagasse, etc., are higher and ever increasing. Purchase of high cost renewable energy on long-term basis for fulfilling RPPO results in saddling the distribution licensees with unwarranted surplus power, backing down of thermal power with payment of fixed charges therefore, short-term purchases for meeting peak deficit. In view of the anticipated energy availability from upcoming conventional power plants, the RPPO targets may not be increased and also specifying solar and non-solar RPPO separately is unwarranted. Even if the RPPO target is not increased, the renewable energy to be purchased in absolute terms would increase due to the increasing demand. The Tariff Policy also emphasises that the impact of retail tariffs has to be taken into consideration in determination of RPPO. The distribution licensees can approach the Commission for approval of new power purchase proposals, as and when required.

3.1.6 MoP, vide its order dated 14.06.2018 issued the RPPO trajectory for FY 2019-20 to FY 2021-22. Further MoP, vide its order dated 29.01.2021 has recognised HPO as a separate trajectory. Therefore, the RPPO trajectory may be specified as under:

<b>Year/RPPO</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
Solar	11.00	11.50	12.00	12.50	13.00
HPO	0.35	0.66	1.08	1.48	1.80
Other Non-Solar	11.00	11.50	12.00	12.50	13.00
<b>Total Non-Solar</b>	<b>11.35</b>	<b>12.16</b>	<b>13.08</b>	<b>13.98</b>	<b>14.80</b>
<b>Total</b>	<b>22.35</b>	<b>23.66</b>	<b>25.08</b>	<b>26.48</b>	<b>27.80</b>

3.1.7 MoP vide order dated 29.01.2021 had approved the renewable purchase obligation including long term trajectory for HPO for the period from FY 2021-22 to FY 2029-30, considering Large Hydropower Plants (LHPs) commissioned after 08.03.2019. Further, CERC vide Order dated 24.02.2022 had also approved introduction of Hydro power Contracts in G-TAM at IEX platform to facilitate HPO compliance. In this regard, the Commission may align State HPO targets with the HPO targets approved by MoP.

3.1.8 There is a limited potential for the availability of Non-Solar resources and most of the existing PPAs of the Non-Solar Power projects will expire in next two (2) years, setting up non-Solar RPPO with an annual increase of 0.25% will be extremely challenging for TSDiscoms and requested to modify the minimum quantity as mentioned below or to provide flexibility to TSDiscoms in meeting the RPPO obligations on a cumulative basis (Solar and Non-solar

combined):

<b>Year/RPPO</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>
Solar	7.50	8.00	9.00	10.00	11.00
Non-solar	1.00	1.10	1.20	1.30	1.40
<b>Total</b>	<b>8.50</b>	<b>9.10</b>	<b>10.20</b>	<b>11.30</b>	<b>12.40</b>

3.1.9 The Draft Regulation provides for fulfilling any shortfall in RPPO from energy purchases, by way of purchasing Renewable Energy Certificates (RECs). The purchase of RECs to fulfil RPPO has to be discontinued.

3.1.10 The non-solar potential in the State is lower in comparison to the solar potential. The Commission may consider to revise the non-solar RPPO taking into consideration the actual availability and potential of non-solar renewable sources in the State and its impact on the retail supply tariff. Further, the per unit cost of procurement from such resources may also be taken into account to uphold the procurement on the basis of least cost principle as envisaged in the Act, 2003.

3.1.11 The Commission has proposed to compute RPPO on the total consumption of electricity by an obligated entity excluding consumption met from renewable energy sources. In this regard, the Ministry of Power (MoP), Government of India (GoI) vide order dated 29.01.2021 has defined that RPPO of the obligated entity(ies) has to be computed in energy terms as a percentage of total consumption of electricity excluding consumption met from large hydro plants. It appears that the Commission has unintentionally proposed to deduct consumption met from renewable energy sources from the total consumption for the computation of RPPO. Therefore, the first proviso to clause 3(1) may be modified as under:

*“Provided further that the obligation will be on total consumption of electricity by an Obligated Entity excluding consumption met from hydro sources (LHPs)”*

3.1.12 The Commission may consider adjustment towards shortfall source to the extent of shortfall for computation of compliance from such source.

3.1.13 The Commission may consider that on achievement of non-solar RPPO compliance to the extent of 50% and above, remaining shortfall if any, can be met by excess solar energy purchased beyond the specified solar RPPO for that particular year.

3.1.14 The following proviso may be added to clause 3(1):

*“Provided further that the obligation to purchase electricity from generation based on hydro as a renewable energy source can be fulfilled through hydro energy or energy through Pumped Storage Projects of hydro certificates only:*

*Provided further that consumption by Obligated Entity from solar-wind energy fed Pumped Hydro Storage qualify for meeting Solar, Non-Solar as well as HPO:*

*Provided further that in case of power procured from Hybrid Sources the renewable energy generated to be considered for Solar RPO, Non-Solar RPO and HPO shall be based on the relative proportion of energy contributed by each source, calculated based on the ratio of declared capacities of each source in the Power Purchase (Sale) Agreement.”*

### **Commission's view:**

- 3.1.15 Section 86(1)(e) of the Electricity Act, 2003 mandates the promotion of 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. Further, the Tariff Policy, 2016 stipulates that the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Taking into consideration the statutory mandate and with the objective of balancing the interest of all the stakeholders at large, the Commission has proposed the RPPO trajectory for the period from FY 2022-23 to FY 2026-27.
- 3.1.16 As regards the stakeholder's submission regarding the first proviso to clause 3(1), the Commission makes it amply clear that it was a conscious decision of the Commission to exclude the consumption met from renewable energy sources which have been defined as sources of energy such as water, wind, sunlight, biomass, bagasse, municipal solid waste and other such sources as approved by the Ministry of New and Renewable Energy (MNRE). The rationale for exclusion of consumption of renewable energy sources is to rectify the existing computation methodology wherein the RPPO which has to be met by purchases from renewable energy sources is computed on the consumption including that from renewable energy sources. It is appropriate that the base value of consumption for computation of obligation shall have to exclude the consumption from all renewable energy sources and not hydro alone. Hence, retained the first proviso as proposed in Draft Regulation with slight modification by adding the term 'and Large Hydel' as under the modified definition of 'Renewable Energy Sources' only Small Hydel are considered.
- 3.1.17 The Commission does not find merit in the stakeholder's request for adjustment of shortfall of one source from other source on compliance of the obligation to the extent of 50% and above, as it would render the separate solar and non-solar RPPO imprudent. The Commission does not find the need to modify the second and third proviso to clause 3(1).
- 3.1.18 As regards HPO trajectory, the Commission does not find it prudent to specify HPO at this stage due to uncertainty in the availability of adequate capacity for fulfilling the obligation, if specified.

### **3.2 Commission's proposal of clause 3(3) in Draft Regulation:**

- 3.2.1 3(3) *The Distribution Licensees shall purchase power from renewable energy sources at the tariff determined by the Commission u/s 62 of the Act or at tariffs discovered through transparent process of bidding u/s 63 of the Act directly or through traders and adopted by the Commission.*

### **Stakeholders' comments, suggestions and objections:**

- 3.2.2 The system of determining generic tariffs by the Commission and distribution licensees entering into long-term PPAs based on such generic tariffs has to be discontinued. With the efflux of time and competitive bidding taking predominant place, the determination of generic tariffs has become redundant

and irrelevant conclusively. The Commission may mandate competitive bidding for procurement of renewable power by the distribution licensees to ensure benefit of competitive tariffs.

**Commission's view:**

3.2.3 The Commission has taken note of the suggestion given by the stakeholder.

**3.3 Commission's proposal of clause 3(4) in Draft Regulation:**

3.3.1 3(4) *The purchase of renewable power by the Distribution Licensee, from other Distribution Licensees in the State of Telangana shall also be taken into account for computing the fulfilment of RPPO by such a Licensee.*

**Stakeholders' comments, suggestions and objections:**

3.3.2 The Draft Regulation provides for fulfilment of RPPO by the obligated entities by purchase of power from renewable energy sources at a tariff determined u/s 62 or tariff discovered u/s 63. The Draft Regulation also provides for purchase of renewable energy from other distribution licensees for fulfilment of RPPO. The distribution licensee has the option to fulfil its obligation by procuring renewable energy from short term market through Green-Day Ahead Market (G-DAM) and Green-Term Ahead Market (G-TAM) products available at Indian Energy Exchange (IEX) platform. Further, IEX is in the process of introducing long-term contracts for delivery of conventional and non-conventional power beyond eleven (11) days at the exchange platform for which a Petition has been filed before the Central Electricity Regulatory Commission (CERC). Therefore, clause 3(4) of the Draft Regulation may be modified as under:

*"The purchase of renewable power by the Distribution Licensee, from other Distribution Licensees in the Telangana State and from the power exchanges shall also be taken into account for computing the fulfilment of RPPO by such a Licensee."*

**Commission's view:**

3.3.3 The Commission views that it inherently covers under the Renewable Energy Sources and hence retained the clause 3(4) as proposed in the Draft Regulation.

**4 With regard to clause 8 'Consequences of default' of the Draft Regulation**

**4.1 Commission's proposal of clause 8(1) in Draft Regulation**

**4.1.1 8. Consequences of default**

(1) *If the obligated entity does not fulfil the RPPO as provided in clause 3 of this Regulation during any year, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by the State Agency, such amount on the basis of the shortfall in units of the RPPO and the Forbearance Price decided by the Central Commission; ... ..*

**Stakeholders' comments, suggestions and objections:**

4.1.2 This provision shall be brought into force in case of obligated entities fail to achieve the total RPPO upon adjustment from excess achieved source to

shortfall source to the extent of short fall during any year, and the Commission taking into account the actual availability of such source in that particular year and direct the obligated entities to deposit into a separate fund, to be created and maintained by the State Agency, such amount on the basis of the shortfall in units of the total RPPO after adjustment and at 50% of the Floor Price decided by the Central Commission. Further, to consider carry forward the shortfall/surplus units in the next financial year(s).

- 4.1.3 As the mechanism of Floor and Forbearance Price is proposed to be done away with, clause 8(1) may be modified as under:

*“If the obligated entity does not fulfil the RPPO/HPO as provided in clause 3 of this Regulation during any year, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by the State Agency, such amount on the basis of the shortfall in units of the RPPO and 1.5times Maximum price of REC/HEC traded during the corresponding year including taxes and levies, besides barring the defaulting entity(s) permission from availing Power through Open Access.”*

**Commission’s view:**

- 4.1.4 The Commission does not find merit in the stakeholder’s suggestion and hence retained the clause 8(1) as proposed in Draft Regulation.

**5 With regard to clause 12 ‘Power to Relax’ of the Draft Regulation**

**5.1 Commission’s proposal of clause 12(1) in Draft Regulation:**

**5.1.1 12. Power to Relax**

- (1) The Commission may by general or special order, for reasons to be recorded in writing and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of this Regulation on its own motion or on an application made before it by an interested person.

**Stakeholders’ comments, suggestions and objections:**

- 5.1.2 While the distribution licensees are obligated to fulfil RPPO, the renewable energy generators are not obligated to sell their power to the distribution licensees. While the distribution licensees cannot purchase power at lower prices to the extent of existing arrangements made for fulfilling RPPO, the generators can sell their power to the price of their choice. It appears that the impact of the renewable energy tariffs and the PPAs of the distribution licensees has not been analysed. It also appears that the proposals in the Draft Regulation have not been in the larger consumer interest.

**Commission’s view:**

- 5.1.3 The stakeholder’s apprehension is misplaced as on one hand clause 12(1) is being referred while on the other hand is referring to a completely different aspect of tariffs. The Commission has issued the Draft Regulation after thorough analysis of the provisions of the existing Regulation and therefore retained the clause 12(1) as proposed in Draft Regulation.

**6 With regard to clause 14 ‘Saving’ of the Draft Regulation**

**6.1 Commission’s proposal of clause 14(2) in Draft Regulation:**

6.1.1 “14. **Saving**

(1) ... ..

(2) Any rights and liabilities arising out of the earlier Regulation shall be settled within the applicable provisions as may be appropriately relevant.

**Stakeholders’ comments, suggestions and objections:**

6.1.2 Any rights and liabilities arising out of earlier regulation shall be settled within the purview of that regulation and it can neither be carry forwarded nor be brought into the present framework and hence to be deleted. This regulation shall be treated independent for this control period.

**Commission’s view:**

6.1.3 The Commission does not find merit in the stakeholder’s suggestion and hence retained the clause 14(2) as proposed in Draft Regulation.

Sd/-  
(BANDARU KRISHNAIAH)  
MEMBER

Sd/-  
(M.D.MANO HAR RAJU)  
MEMBER

Sd/-  
(T.SRIRANGA RAO)  
CHAIRMAN



### Annexure-1

#### List of stakeholders who submitted written suggestions, comments and objections against Public Notice dated 09.03.2022 on Draft Regulation

Sl. No.	Name of the stakeholder & address
1)	Southern Power Distribution Company of Telangana Limited (TSSPDCL), Corporate Office, # 6-1-50, Mint Compound, Hyderabad 500 063.
2)	Northern Power Distribution Company of Telangana Limited (TSNPDCL), Corporate Office, # 2-5-31/2, Vidyuth Bhavan, Nakkalagutta, Hanamkonda, Warangal 506 001.
3)	Indian Energy Exchange Limited (IEX), Plot No.C-001/A/1, 9 <sup>th</sup> Floor, Max Towers, Sector 16B Noida, Gautam Buddha Nagar, Uttar Pradesh 202 301.
4)	Sri M.Venugopala Rao, Senior Journalist & Convenor, Centre for Power Studies, H.No.1-100/MP/101, Monarch Prestige, Journalist's Colony, Gopanpally, Serlingampally Mandal, Hyderabad 500 032.
5)	M/s Greenko Energies Private Limited, Plot No.1071, Road No.44, Jubilee Hills, Hyderabad 500 033.
6)	M/s Nava Bharat Ventures Limited, Nava Bharat Chambers, Raj Bhavan Road, Hyderabad 500 082.
7)	M/s Penna Cement Industries Limited, Plot No.705, Lakshmi Nivas, Road No.3, Banjara Hills, Hyderabad 500 034.
8)	M/s Biomass Energy Developer Association, No.13, 4 <sup>th</sup> Floor, Maitri Arcade, 2-3-42/52, M.G.Road, Secunderabad 500 003.