TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

5th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500 004

O. P. No. 21 of 2022
&
I. A. No. 59 of 2022

Dated 10.01.2023

Present

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

Between:

M/s Rain Cements Limited,
Rain Centre, 34, Srinagar Colony,
Hyderabad – 500 073. ... Petitioner

AND

1. Transmission Corporation of Telangana Limited,
   State Load Despatch Centre, Vidyuth Soudha,
   Hyderabad – 500 082.

2. Southern Power Distribution Company of Telangana Limited,
   Corporate Office, H. No.6-1-50, Mint Compound,
   Hyderabad – 500 063. ... Respondents

The petition came up for hearing on 18.04.2022, 02.05.2022, 27.06.2022, 18.08.2022 and 01.09.2022. Sri Deepak Chowdary, Advocate representing Sri. Challa Gunaranjan, Advocate for petitioner appeared on 18.04.2022, 02.05.2022, 18.08.2022 and Sri. Challa Gunaranjan, Advocate for petitioner appeared on 01.09.2022. There is no representation for respondents on 18.04.2022 and 02.05.2022. Sri. Mohammad Bande Ali, Law Attaché for respondents have appeared on 18.08.2022 and 01.09.2022. The hearing scheduled on 27.06.2022 had been postponed due to administrative reasons. The matter having been heard and having stood over for consideration to this day, the Commission passed the following:

ORDER

M/s Rain Cements Limited (petitioner) has filed a petition under Section 86 (1) (e) of the Electricity Act, 2003 (Act, 2003) read with Clause 11 of the Telangana State Electricity Regulatory Commission Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy/Renewable Energy Certificates) Regulations, 2018, seeking directions to the respondents to treat its WHRS plant as renewable source in respect of its cement manufacturing unit. The averments of the petition are as below:

a. It is stated that the petitioner is a company incorporated under the provisions of the Companies Act, 1956 (Act, 1956) and is in the business of manufacturing and sale of cement. The petitioner being a highly energy intensive industry and energy cost comprises of about 35-45% of the total manufacturing costs in order to cater its inhouse energy requirements, it has commissioned Waste Heat Recovery System (WHRS) which generates electricity with an installed capacity of 4.5 MW. It is stated that the petitioner's WHRS plant is a cogeneration plant as defined under Section 2(12) of the Act, 2003. The WHRS plant harnesses the waste heat gases emanating from the manufacturing process of cement and uses it for generation of electricity without burning of any additional fuel (which otherwise would have been let off as waste heat into the environment) and thus by reducing CO_2 emissions, making it environmentally friendly.

b. It is stated that about 201729 nm^3/hr hot flue gases at temperature of 200(±)5^oC are emanating from the preheater and 122185 nm3/hrs at temperature 105 (±)5^oC from cooler of cement plant. The hot flue gases, which otherwise, would have been emitted as exhaust gases into the atmosphere are being passed through heat exchangers as a part of the Waste Heat Recovery System. The hot flue gases from the preheater and cooler are passed through the boiler to generate steam. The steam drives the turbine for generation of electricity. The exhaust steam from turbine, is cooled through air cooled condenser, and recycled back to the boiler.

c. It is stated that this is a unique project in utilizing the waste heat from flue gas and it is conserving natural resources such as coal and reduces

thermal pollution by reducing CO_2 emissions, and thus making it environmentally friendly.

A. <u>BRIEF DESCRIPTION AND OPERATION OF THE CEMENT / CLINKER PLANT UNIT:</u>

d. It is stated that the raw material limestone is crushed to 80 mm size and loaded in circular type stockpiles, which are provided with suitable stacking and reclaiming system. The crushed limestone and additives will be extracted from their respective hoppers in a predefined proportion by weigh feeders and will be further transported by belt conveyor to a raw mill in the plant for grinding into fine powder. Post grinding, the raw mix is stored in a concrete silo called 'Kiln Feed'.

e. It is stated that the raw mix stored in the kiln feed is then heated to a sintering temperature in a 5-stage preheater by hot gas coming from the combustion chamber and rotary kiln and the pre-heated kiln feed is partially calcined with the help of a pre-calcinator. Partially calcined kiln feed then fed into the main burner rotary kiln, where it is completely calcined at a temperature of 1350^{o}C to 1400^{o}C. Coal is used as fuel to provide the heat required to convert the kiln feed into clinker. Hot clinker discharge from the kiln drops onto the grate cooler for cooling from approximately 1350-1450^{o}C to approximately 80^{o}C-100^{o}C. It is stated that approximately around 30kwh of electricity can be generated per tonne of clinker, from a 5-stage pre-heater kiln.

f. It is stated that in this process, large quantities of hot flue gases are being emitted to the atmosphere in cement industries. The sources of these waste flue gases are from the pre-heater and clinker cooler. The heat energy available in these flue gases can be recovered using WHRS boiler effectively used to produce significant amount of electricity.

B. <u>OPERATION OF WHRS PLANT</u>:

g. It is stated that the hot flue gases enter into the dust settling chamber in AQC Boiler, where heavier particles settle down. The waste heat is used to vaporize the fluid to required pressure and temperature of steam. The gases are then passed through an economizer. These gases let out pass through electrostatic precipitators (ESP) in cooler boiler and bag house in PH Boiler for eliminating dust particles and only dust free gas is let out

into atmosphere. HP and LP flushers vent out the oxygen and dissolved gases form the feed water and to increase the feed water temperature. The hot water is decompressed and generated the saturated steam through flushers. The saturated steam is led into the steam turbine, to increase efficiency of the steam turbine. Thermal energy, generated from pressurized steam, is used to do mechanical work to drive an electric generator, which generator converts mechanical energy into electric power. The steam coming out of the steam turbine is then condensed to water by air cooled condenser.

h. It is stated that the condensate return from condenser shall be taken through the condensate pump and fed to low pressure flusher and Boiler Feed Water Pump (BFWP). Boiler feed water pump transports the hot water to AQC boiler economiser. Economiser output hot water supplies to the generator and super heaters placed in each boiler. The superheated steam from each super heater coils are collected in a Common Steam Distribution Header (CSDH).

i. It is stated that the superheated steam form CSDH shall be fed into the turbine to rotate the turbine which in turn rotates the generator and electricity is generated.

j. It is stated that the Commission issued a draft regulation for the Renewable Power Purchase Obligation (RPPO) (Compliance by Purchase of Renewable Energy/Renewable Energy Certificate) (Regulation). Clause 3 of the said draft regulations provides for the RPPO and Clause 3.1 requires every obligated entity in the state of Telangana to purchase of quantum of 6% to 8% of its total purchase of electricity during the FY 2018-19 to FY 2021-22 from Renewable Energy Sources (RES). The purchase of Renewable Energy Certificates (RECs) is also treated as fulfilment of the prescribed RPPO. The regulations, which were subsequently notified on 30.04.2018 as TSERC Regulation No.2 of 2018.

k. It is stated that the petitioner has a CMD of 12500 kVA for manufacturing cement and also operates a WHR plant which uses cogeneration process and solar power and has a RPPO u/s. 86(1)(e) of the Act, 2003.

l. It is stated that the petitioner has conceived its WHRS plant for utilizing the waste heat available in the hot flue gases generated during its cement manufacturing process with a generation capacity of 4.5 MW and the same was synchronized on 19.08.2020. It is further stated that, if this waste heat is not used for generating electricity, would otherwise be emitted into the air as discharge. Therefore, it is stated that it is entitled for exemption from its RPPO obligations and redressal of the same from the Commission through the present petition.

m. It is stated that Clause 11 of the regulation enables the Commission to entertain an application from an entity mandated under Section 86(1)(e) of the Act, 2003 to fulfil the RPPO to pass appropriate orders to remove any difficulty in exercising the provision of this regulation. As such, the present application is being preferred by the petitioner seeking an exemption from the regulations.

n. It is stated that the petitioner operates a captive power plant which uses co-generation and has no further obligation towards renewable purchase obligation under Section 86(1)(e) of the Act, 2003. It is stated that the petitioner company has installed waste heat recovery systems wherein the waste heat available in the furnace flue gases thereby generating upto 5.0 MW power, which heat otherwise would be let into air as discharge. It is stated that the petitioner company is entitled for being exempted from the RPPO obligation.

o. It is stated that the RPPO that is Regulation No.2 of 2018 is framed by the Commission in exercise of the powers conferred under Section 86 (1) (e) of the Act, 2003 and the said provision reads as follows:

> *"Promote co-gene ration 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 distribution licence."*

Further, Section 2 (12) of the Act, 2003 defines cogeneration as follows:

> *"Cogeneration" means a process which simultaneously produces two or more forms of useful energy (including electricity)"*

p. It is stated that a reading of Section 86 (1) (e) of the Act, 2003 it is clear that there are two categories or generators of electricity that is co-generators and generators of electricity through renewable sources of energy. The intention of the Legislature in including the words cogeneration and generation of electricity from renewable sources in Section 86 (1) (e) of the Act, 2003 was to ensure that both the generators that is co-generator and generators of electricity from renewable sources of energy are entitled for the benefit of the provisions of Section 86(1)(e) of the Act, 2003. It is stated that as stated supra, it is generating up to 5.0 MW of power from the heat available in the furnace exit flue gas and the same is be considered as co-generation and thus the petitioner company is entitled for the exemption provided under Clause 11 of Regulation No.2 of 2018.

q. It is stated that the similar contention with regard to the interpretation of the provisions of Section 86(1)(e) of the Act, 2003 came up for consideration before the Hon'ble Appellate Tribunal for Electricity (ATE) in Appeal No.57/2009 dated 26.04.2010 and the Hon'ble ATE has held that the benefit of the provisions of Section 86(1)(e) is also applicable to the cogeneration units and the said judgment squarely applies to the facts of the case.

r. It is stated that apart from the above case, similar contention was also decided by the Hon'ble ATE in Appeal No. 54 / 2012 dated 30.01.2013 and the APERC also similarly granted exemption to M/s Rashtriya Ispat Nigam Limited and Rain Cements Limited. The ratio laid down in the above judgments is equally applicable to the facts of the petitioner's case and it is entitled for exemption from the purview of renewable power purchase obligation. While considering the said issue APERC held as follows;

"11. In Century Rayon Vs. Maharashtra Electricity Regulatory Commission and others, Appeal No.57 of 2009, the Appellate Tribunal for Electricity by the judgment dated 26.04.2010 clearly held that the definition of co-generation in Section 2(12) of the Electricity Act, 2003 did not restrict the said process to mean production of energy from any form of fuel and it may be fossil

fuel or may be non-fossil fuel. Section 86(1)(e) was interpreted to include co-generation irrespective of fuel used and generation from Renewable Sources of Energy. The expression 'co-generation' in Section 86 (1) (e) of the Electricity Act, 2003 does not mean anything different from what is defined in Section 2 (12) of the Electricity Act, 2003 or co-generation from renewable sources only. The Appellate Tribunal for Electricity referred to the National Electricity Policy, National Tariff Policy and National Electricity Plan then in vogue and also Regulations of some State Commissions which categorized cogeneration as renewable energy without reference to the fuel used for such co-generation. The conclusions of the Appellate Tribunal for Electricity therefore were with reference to two specific provisions of the Electricity Act, 2003 i.e., Section 86 (1) (e) and Section 2 (12) which continued to be the same even after the Resolution dated 28-01-2016. Regulation 1 of 2012 governing the RPPO defined 'Renewable energy sources' in Clause 2 (m) as meaning renewable sources such as cogeneration (from renewable sources of energy like bagasse) etc., and also such other sources as recognized or approved by the Ministry of New and Renewable Energy. Such sources therefore do not cover co-generation from sources other than renewable energy sources and as already stated Regulation 1 of 2012 has not been amended making the applicability of RPPOs govern co-generation from sources other than renewable energy sources also. In view of the interpretation by the Appellate Tribunal for Electricity that Section 86(1)(e) read with Section 2 (12) of the Electricity Act, 2003 mandates the State Commission to promote both the categories: one is co-generation as defined in Section 2 (12) irrespective of the fuel used and another is generation of electricity from the renewable sources of energy, a co-generator irrespective of fuel used by it is entitled to be promoted under Section 86 (1) (e) and the fastening of the obligation on the co-generator to procure electricity from renewable energy sources would defeat the object of Section 86

(1) (e). Therefore, unless the direction in the Resolution dated 28-01-2016 not to exclude co-generation from sources other than renewable energy sources from the applicability of RPPOs is incorporated in Regulation 1 of 2012 or made part of the mandate of Section 86 (1) (e) read with Section 2(12) of the Electricity Act, 2003, the interpretation of the Appellate Tribunal for Electricity in Appeal No.57 of 2009 cannot be considered to have been nullified.

13. *In the order dated 23-05-2015 in O. P. No. 21 of 2014 (I. A. No. 7 of 2014) and the order dated 06-08-2016 in O. P. No. 7 of 2016, the Hon'ble APERC was dealing with Visakhapatnam Steel Plant and Rain CII Carbon (Vizag) Limited respectively, which claimed to be not obligated entities, as the captive power plant is a co-generation unit as per Section 2(12) of the Electricity Act, 2003. Taking note of the consistent view of the Appellate Tribunal for Electricity and following the same as a matter of judicial discipline and propriety, this Commission concluded that co-generation being promotable irrespective of the nature of the fuel used, the petitioner therein has to be exempted from the RPPO obligation, if necessary, even in relaxation of Regulation 1 of 2012. The principles are squarely applicable to the facts of the present case, notwithstanding the declaration of the policy by the Resolution of the Ministry of Power, Government of India dated 28-01-2016 or other factors relied on by the respondents as the statutory provisions, as interpreted by the Appellate Tribunal for Electricity and Regulation 1 of 2012 continued to remain the same and to be of the same effect."*

s. It is stated that the Hon'ble ATE in its judgement dated 16.04.2019 in Appeal No.146/2017, while dealing with an entity similarly situated to the petitioner, relied on its judgments in Appeal Nos.322 & 333 of 2016 dated 09.04.2019, Appeal No.278 of 2015 and batch dated 02.01.2019, held that as long as captive consumers consume energy from cogenerating units beyond the RPPO obligations, there is no obligation to purchase

RE certificates or consume renewable energy, separately in order to meet their RPPO.

t. It is stated that the contention that it was the intention of the legislature that cogenerating would be exempt from meeting RPPO obligations is buttressed by the legislative and judicial history resulting in the issuance of RPPO regulation, 2017. The law regarding RPPO in the erstwhile state of Andhra Pradesh was governed by APERC Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy / Renewable Energy Certifications) Regulations, 2012 (RPPO Regulation 2012). In the said regulation, there was no clarity qua treatment of consumption from co-generation plant for the purpose of RPPO compliance. Accordingly, a petition bearing O. P. No.7 of 2016 was filed by Rain CII Carbon (Vizag) Limited (Rain Carbon), seeking exemption for power consumed by it from a WHRS based cogeneration plant towards compliance of RPPO. It was Rain Carbon's contention that the power produced by its WHRS was akin to renewable power and no RPPO can be fastened upon consumption of electricity from its WHRS.

u. It is stated that on 06.08.2016, the APERC, after relying upon the judgment passed by the Hon'ble ATE in Century Rayon's case (supra), passed its Judgment in O. P. No. 7 of 2016, holding that the petitioner therein is exempted from complying with RPPO since cogeneration (irrespective of the nature of fuel used) is to be promoted. The relevant extracts of the same are reproduced below:

> *"A petition under Section 86 (1) (e) of the Electricity Act, 2003 to exempt the power generated by the petitioner from co-generation process through waste heat received from flue gases from Renewable Power Purchase Obligation under Regulation 1 of 2012 and any other appropriate orders as may be deemed fit.*
>
> *2. The petitioner's case is that it is a company engaged in the manufacturing of Calcined Petroleum Coke (CPC) by converting Green Petroleum Coke (GPC) using calcinations process. The petitioner also established a co-generating power plant at its unit at Visakhapatnam with an installed capacity of 49.5 MW. The power produced is totally based on the waste heat recovered from*

the flue gases generated during the calcinations process of Green Petroleum Coke. Explaining the process of production of electricity, the petitioner explained that there is no combustion of fuel and the energy so produced is clean energy or renewable energy.

… …

6. The point for consideration is whether the petitioner is entitled to be exempted from the Renewable Power Purchase Obligation under Regulation 1 of 2012 of this Commission.

… …

8. In Century Rayon Vs. Maharashtra Electricity Regulatory Commission and others, Appeal No. 57 of 2009, The Appellate Tribunal for Electricity by the judgment dated 26-04-2010 clearly held that the definition of co-generation in Section 2 (12) of the Electricity Act, 2003 did not restrict the said process to mean production of energy from any form of fuel and it may be fossil fuel or may be non-fossil fuel. Section 86(1)(e) was interpreted to include co-generation irrespective of fuel used and generation from Renewable Sources of Energy. The expression 'co-generation' in Section 86 (1) (e) of the Electricity Act, 2003 does not mean anything different from what is defined in Section 2 (12) of the Electricity Act, 2003 or co-generation from renewable sources only. The Appellate Tribunal for Electricity referred to the National Electricity Policy, National Tariff Policy and National Electricity Plan then in vogue and also Regulations of some State Commissions which categorized cogeneration as renewable energy without reference to the fuel used for such cogeneration. The conclusions of the Appellate Tribunal for Electricity therefore were with reference to two specific provisions of the Electricity Act, 2003 i.e., Section 86 (1) (e) and Section 2 (12) which continued to be the same even after the Resolution dated 28-01-2016. Regulation 1 of 2012 governing the RPPO defined 'Renewable energy sources' in Clause 2(m) as meaning renewable sources such as cogeneration (from renewable

sources of energy like bagasse) etc., and also such other sources as recognized or approved by the Ministry of New and Renewable Energy. Such sources therefore do not cover co-generation from sources other than renewable energy sources and as already stated Regulation 1 of 2012 has not been amended making the applicability of RPPOs govern co-generation from sources other than renewable energy sources also. In view of the interpretation by the Appellate Tribunal for Electricity that Section 86(1)(e) read with Section 2 (12) of the Electricity Act, 2003 mandates the State Commission to promote both the categories: one is co-generation as defined in Section 2 (12) irrespective of the fuel used and another is generation of electricity from the renewable sources of energy. A co-generator irrespective of fuel used by it is entitled to be promoted under Section 86 (1) (e) and the fastening of the obligation on the co-generator to procure electricity from renewable energy sources would defeat the object of Section 86 (1) (e). Therefore, unless the direction in the Resolution dated 28-01-2016 not to exclude co-generation from sources other than renewable energy sources from the applicability of RPPOs is incorporated in Regulation 1 of 2012 or made part of the mandate of Section 86 (1) (e) read with Section 2 (12) of the Electricity Act, 2003, the interpretation of the Appellate Tribunal for Electricity in Appeal No.57 of 2009 cannot be considered to have been nullified.

… …

10. In O. P. N o.21 of 2015 and I.A.No.7 of 2014, this Commission by an order dated 23-05-2015 was dealing with the Visakhapatnam Steel Plant which claimed to be not an obligated entity as the captive power plant is a co-generation unit as per Section 2(12) of the Electricity Act, 2003. Taking note of the consistent view of the Appellate Tribunal for Electricity and following the same as a matter of judicial discipline and propriety, this Commission concluded that co-generation being promotable irrespective of the nature of the fuel used, the petitioner therein has to be exempted

from the RPPO obligation, if necessary, even in relaxation of Regulation 1 of 2012. The principles are squarely applicable to the facts of the present case, notwithstanding the declaration of the policy by the Resolution of the Ministry of Power, Government of India dated 28-01-2016 or other factors relied on by the respondents as the statutory provisions, as interpreted by the Appellate Tribunal for Electricity and Regulation 1 of 2012 continued to remain the same and to be of the same effect. The petition has to therefore succeed."

v. It is stated that thereafter, the Commission issued the draft Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy / Renewable Energy Certificates) Regulations, 2018 for the years 2017-18 to 2021-22, for public comments.

w. It is stated that on 17.01.2018, the Commission had initiated the process of making regulation for the purpose by placing the draft Regulation, 2018 providing its view on various comments/objections/submissions made by the parties on the draft regulation of 2018. Upon receipt of comments/objections/ submissions, a public hearing was held and the final Regulation No. 2 of 2018 was issued. Therefore, cogeneration plants are to be exempted from complying with RPPO.

x. It is stated that it may be noted that recently by the order dated 07.09.2020, the APERC in O. P. No. 11 of 2020, in an identical factual scenario held, after extensively discussing the case laws stated above, that cogeneration sources shall be treated on par with renewable sources and that the power generated by the petitioner's WHRS plant and consumed by the petitioner is eligible to be set off against its RPO requirements towards the energy consumed from conventional sources. Relevant extracts of the same is produced herein for ease of reference:

"14. The position that emerges from the caselaw discussed above is that, Section 86 (1) (e) of the Act is interpreted to the effect that irrespective of whether cogeneration sources are renewable sources or otherwise, under the statutory scheme, cogeneration sources shall be treated on par with renewable energy generation sources, that under the Act RPO cannot be fastened on energy

generated through cogeneration sources merely because renewable sources are not utilized in cogeneration process and that irrespective of the fuel used (in Century Rayon, the APTEL has taken an extreme example of fossil fuel being used as a co-generation source), the co-generation captive plants are entitled to be exempted from compliance of RPPO.

15. *One last question that remains to be dealt with, though it is not specifically argued by Mr. Siva Rao, but raised in the counter is, to what extent the Petitioner is entitled to the relief. In the counter the Respondent has drawn a distinction between exemption of energy produced by the captive plant from RPPO and claiming such energy for RPPO obligation to be required to be met from conventional energy.*

.. the order in EMAMI Paper Mills Ltd. v. OERC & Ors (Judgment dated 30.01.2013 in Appeal No. 54 of 2012) as extracted by APTEL in JSW case and also in this order supra throws a clear light on this aspect. In para 40 (ii), it clearly laid down that the definition of obligated entity did not cover a case where a person is a consumer and is consuming power from a cogeneration plant. The APTEL also set aside the State Commissions' order holding that the obligation in respect of co-generation can be met from solar and non-solar sources but the solar and non-solar purchase obligation has to be met mandatorily by the obligated entities and consuming electricity only from co-generation sources shall not relieve any obligated entity. The APTEL clearly spelt out that when such relaxation has been made, the same relaxation must have been allowed in respect of consumers making electricity consumption from captive generation plant in excess of total RPPO obligations and that failure to do so would amount to violation under Section 86(1)(e) of the Act, which provides both cogeneration as well as generation of electricity from renewable source of energy must be encouraged as per the finding of the APTEL in appeal no. 57 of 2009.

16. While the above discussed judgment in Emami case is a complete answer to the question under discussion, this Commission also independently feels that confining the exemption only to captive units defies logic and reason. Once cogeneration is treated on par with renewable energy and on that basis the captive plant is exempted from being an obligated entity, mulcting a consumer of that power with RPPO treating the same as conventional energy is wholly irrational and the same would defeat the legislative intent of treating energy from cogeneration on par with renewable energy. In light of preponderance of judicial opinion reflected in the weighty judgments of APTEL as followed by this Commission at least in two cases, and the reasons assigned by us herein above, we hold that the power generated by the WHRS's plant and consumed by the Petitioner is eligible to set off against its RPO requirements towards the energy consumed from conventional sources.

y. It is stated that as is evident from above, various SERCs have always treated consumption of electricity from a WHRS akin to power from renewable energy sources and has also permitted setting off of that power consumed from a WHRS (a co-generation plant) against RPPO obligations. Thus, in terms of the law laid down by the various SERC's, it is imperative that power consumed from a cogeneration plant ought to be considered for setting off the RPPO obligations of an obligated entity (in addition to the existing dispensation provided by Ld. APERC). It is submitted that any failure of providing such dispensation would lead to discrimination qua consumption from renewable sources vis-à-vis consumption from co-generation and would also be contrary to the legislative intent.

z. It is stated that without prejudice to the above, it is stated that, the process used in the petitioner's WHRS for generation of electricity is completely non-fossil fuel based and is environmentally friendly and unlike traditional cogeneration there is no burning of additional / supplemental fuel for generation of electricity. The flue gas/waste gas released after the manufacturing process of cement (which was earlier

emitted into atmosphere) is now being used for the purpose of generation of electricity. In other words, the waste gases are not emitted into environment, thereby reducing greenhouse effect. There is no additional burning of fossil fuel for generating electricity as the WHRS technology merely utilizes the waste heat for generation of electricity.

aa. It is stated that the environmentally friendly nature of the petitioner's WHRS is also evident from the fact that the Ministry of Environment and Forest (MoEF), Government of India (GoI), has vide notification S.O.3067(E) dated 01.12.2009 read with its office memorandum dated 23.01.2019, has exempted such power plants using waste heat boilers without using any auxiliary fuel from seeking environmental clearance under the Environmental Impact Assessment Notification, 2006.

ab. It is stated that accordingly, the electricity generated by it and used for captive purpose supplemented through the process of cogeneration using the waste heat from flue gas is to be exempted from RPPO and for the said purposes the petitioner is constrained to file the present petition.

2. The petitioner has sought the following prayer in the petition for consideration.

"To clarify and/or exempt the petitioner company from the Renewable Power Purchase Obligation (RPPO) and that the energy consumed from its WHRS plant through co-generation process is to be considered for setting off, the petitioner's RPPO requirement qua its consumption from other conventional sources, under the Regulation No.2 of 2018, in view of the consumption of power from its co-generation WHRS unit through waste heat received from flue gases."

3. The respondent No.1 has filed its counter affidavit as under.

a. It is stated that the petitioner is a company incorporated under the provisions of the Act, 1956 and is in the business of manufacturing and sale of cement and had set up its unit I - cement manufacturing plant at Ramapuram, Suryapet district, Telangana with a total capacity of 1.0 MTPA.

b. It is stated by the petitioner that in order to cater its inhouse energy requirements, it has commissioned WHRS which generates electricity with an installed capacity of 4.5 MW and the same was synchronized on 19.08.2020.

c. It is stated the petitioner prayed before the Commission to exempt the petitioner from RPPO in view of the consumption of power generated from its cogeneration WHRS units through waste heat received from flue gases.

d. It is stated that the State Load Dispatch Centre of the state of Telangana that is TSSLDC (TSTRANSCO), a statutory body constituted under Section 31 of Act, 2003, is defined as 'state agency' to examine compliance of RPPO by the obligated entities, as per Clause 6 of Regulation No.2 of 2018.

e. It is stated by the respondent that:

(i) *As per Clause 2.10 of TSERC/RPPO Regulation No.2 of 2018:*

"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:

a. Distribution Licensee

b. Captive user - Any consumer who owns a grid connected captive generating plant based on conventional fossil fuel with installed capacity of 1 MW and above, or such other capacity as may be stipulated by the Commission from time to time, and consumes electricity generated from such plant for his own use.

c. Open Access Consumer in the State - Any person having a contracted demand of 1 MW and above and consumes electricity procured from conventional fossil fuel based generation through open access.

(ii) *As per Clause 3.I of Regulation No.2 of 2018:*

"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 2018-19 to FY 2021-22 as specified in this table below:

Year/RPPO	***2018-19***	***2019-20***	***2020-21***	***2021-22***
Solar	*5.33*	*5.77*	*6.21*	*7.10*
Non-solar	*0.67*	*0.73*	*0.79*	*0.90*
Total	*6.00*	*6.50*	*7.00*	*8.00*

Provided further that the obligation will be on total consumption of electricity by an Obligated Entity excluding consumption met from hydro sources of power other small-hydel sources of power."

(iii) *As per the TSERC Order in O.P.No.31 of 2020, dated 09.03.2021: Commission has expressed its view vide Clause (36) that "any consumer consuming electricity from captive cogeneration plant or captive cogeneration 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 cogeneration 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."*

(iv) *The petitioner stated that its WHRS plant harnesses the waste heat gases emanating from the manufacturing process of the cement and uses it for generation of electricity without burning of any additional fuel.*

(v) *The petitioner also stated that coal is used as fuel to provide the heat required to convert the kiln feed into clinker but not for generation of electricity.*

(vi) *The petitioner stated that the process used in WHRS for generation of electricity is completely non fossil fuel based and there is no burning of additional fuel/fossil fuel for generation of electricity.*

(vii) *It is stated that as per TSSLDC records petitioner is not in the list of state RPPO obligated entities either in open access or in captive users category till now.*

(viii) *Hence, in view of the above three points (iv), (v) and (vi) stated by petitioner, TSSLDC has mailed to Divisional Engineer/M&P and TRE/ Suryapet/TSSPDCL on 16.02.2022, to submit all the relevant details of petitioner regarding its commissioning of cement plant and WHR plant, manufacturing process, generation and consumption details (in case of fossil fuel plant) and other related details if any.*

(ix) *On 23.02.2022, Divisional Engineer /M & P and TRE / Suryapet / TSSPDCL has submitted the details of petitioner. which are as below:*

(a) *M/s Rain Cements Ltd. Unit-1 is located at Ramapuram village, Mellacheruvu mandal, Suryapet district, Telangana along with a WHR plant of 4.5 MW installed capacity located within its factory premises and is synchronized on 19.08.2020.*

(b) *There is no coal based power plant and hence no fossil fuel consumption.*

(c) *In house metering equipments are placed in WHR plant and the meter details are enclosed.*

(d) *In the manufacturing process of the cement plant, WHR plant and in the WHR process flowchart, its clearly mentioned that the coal is used as fuel to provide the heat required to convert the kiln feed into clinker but not for generation of electricity and the waste heat received from flue-gases is used for generating power which is synchronized with cement plant and utilized for its operation.*

f. It is stated that the petitioner has enclosed the supporting documents and pictures of the plant of 6.4 MW WHR plant of M/s Rain Cements Limited, Unit-II, located at Sreepuram, Boincheruvupally village, Peapully mandal, Kurnool district., Andhra Pradesh which is not at all

relevant to the present case of 4.5 MW Rain Cement Plant, Suryapet district, Telangana.

g. It is stated that for all the aforesaid reasons, petitioner having 4.5 MW waste heat recovery plant without any fossil fuel consumption cannot be considered as RPPO obligated entity in view of the consumption of power generated from its cogeneration WHRS units through waste heat received from flue gases, as per the Commission's order in O.P.No.31 of 2020 dated 09.03.2021.

h. It is stated that the decision of the respondent in not considering petitioner as an RPPO Obligated entity is correct and in accordance with law.

i. It is stated that all the allegations made by the petitioner that are not specifically dealt with herein are denied.

4. The petitioner has also filed an interlocutory application seeking to receive documents for consideration of the petition. The averments in the application are extracted below:

a. It is stated that the petitioner filed the present O.P. seeking clarify and/or exempt the petitioner company from the RPPO and that the energy consumed from its WHRS plant through co-generation process is to be considered for setting off the petitioner's RPPO requirement qua its consumption from other conventional sources, under the Regulation No. 2 of 2018.

b. It is stated that while that being so, the petitioner also has another WHRS unit situated in the state of Andhra Pradesh and while filing the present O.P. the petitioner has taken steps to file similar O.P. before the Andhra Pradesh Electricity Regulatory Commission by making a similar prayer. Inadvertently, the petitioner has filed the documents pertaining to their plant situated Kurnool district in the state of Andhra Pradesh as otherwise to the pertaining to their unit situated at Ramapuram, Suryapet district, Telangana with a total capacity of 1.0 MTPA. It is stated that the inadvertent filing of the documents pertaining to their unit in state of Andhra Pradesh was neither wilful nor wanton. Therefore, it craves leave of the Commission for amendment of documents. It is further stated that

even if the present application is allowed, no prejudice would be caused to the respondents.

5. The petitioner / applicant has sought the following prayer in the application.

"to set aside the documents furnished along with the main O.P. and to allow the documents being furnished along with the present application to be taken on record and pass any such other order/s in the facts and circumstances of the case as the Commission may deem just and equitable in favour of the petitioner."

6. The Commission has heard the parties to the present petition and also considered the material available to it including the order passed by it earlier insofar as compliance of RPPO Regulation, 2018. The submissions on various dates are noticed below, which are extracted for ready reference.

Record of proceedings dated 18.04.2022:

"… … The counsel for petitioner stated that the petition is filed for declaring the petitioner as a renewable source, however, while filing the petition the documents have mixed up and the same relating to petition filed before APERC have been filed in this petition, which are not relevant. He is proposing to file interlocutory application to place correct material on record. He sought time of two weeks. In view of the request made by the counsel for petitioner, the matter is adjourned."

Record of proceedings dated 02.05.2022:

"… … The counsel for petitioner stated that the necessary application for filing documents is being filed today by undertaking the route of interlocutory application, which has to be processed. The officer present on behalf of the TSSPDCL has stated that the authorized representative is on long leave, hence the matter may be adjourned. In view of the request made by the counsel for petitioner, the matter is adjourned."

Record of proceedings dated 27.06.2022:

"… … The counsel for petitioner stated that the necessary application for filing documents is being filed today by undertaking the route of interlocutory application, which has to be processed. The officer present on behalf of the TSSPDCL has stated that the authorized representative is on long leave, hence

the matter may be adjourned. In view of the request made by the counsel for petitioner, the matter is adjourned."

Record of proceedings dated 18.08.2022:

"… … The counsel for petitioner stated that the necessary application for filing documents is being filed today by undertaking the route of interlocutory application, which has to be processed. The representative of the respondents has no objection. Accordingly, the matter is adjourned."

Record of proceedings dated 01.09.2022:

"… … The counsel for petitioner stated that the issue raised in this petition is with regard to treating the petitioner's project as a renewable source. The Commission had earlier considered the issue in similar matters and also a view was taken in the generic order passed by it. The Commission had earlier allowed the respondents to treat petitioner like projects as renewable source in the generic order of 2021, however, in the subsequent specific orders in respective cases, the Commission clarified that the relaxation is applicable only for the period considered in the generic order and it would not be applicable for the subsequent years. As such, the Commission may consider similar orders to be passed in this case also.

The representative of the respondents stated that the Commission did consider the issue earlier and as such it may be pleased to pass similar order in this case also. The counsel for petitioner also brought to the notice of the Commission that the documents relied upon by the petitioner have been wrongly filed, to say the documents relating to A.P. Commission have been filed with this Commission and documents relating to this Commission have not been filed along with the petition. For that purpose and to replace the documents, the petitioner has filed an interlocutory application, which may also be considered in this case by taking the interlocutory application on the file of the Commission. In view of the submissions of the parties, the matter is reserved for orders."

7. The petitioner has filed interlocutory application in I.A.No.59 of 2022 seeking to place on record the appropriate documents relevant to the petitioner instead of those that have been filed along with the petition. The Commission notices that there is no material alteration in the pleadings due to acceptance of the revised documents. Accordingly, the Commission considers it appropriate to take on record the documents

filed now in the present Interlocutory Application. Consequently, the Interlocutory Application is allowed.

8. 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 TSSLDC setting forth non-compliance of the RPPO by certain obligated 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 No. 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 Aluminum 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. 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 a base for 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 TSSLDC. This submission of the petitioner that there is already a finding on the prayer of the petitioner is inappropriate and incorrect. The proceedings of that matter had a limited scope in the context of compliance of RPPO by obligated entities upon a report submitted by the SLDC to this Commission. It is not out of place to mention that the Commission in O. P. No. 20 of 2020, O. P. No. 21 of 2021 and in O. P. No. 22 of 2021 categorically held that the plants dependent on fossil fuels for generation of electricity through the means of Waste Heat Recovery produced thereof, cannot be considered as Renewable Source and held further that the observations made by the Commission in O. P. No. 31 of 2020 would stand to be limited period, for which it is made and further it would not be carried for the period subsequent to that order.

9. 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 co-generation 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, the orders of the Hon'ble ATE referred above are not in the context of a regulation, which provided for generic definition of obligated entities as such the same are not relevant and appropriate insofar as facts and circumstances of this case.

10. 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 of Hon'ble ATE 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 on the aspect of treating the petitioner's WHRS as a renewable source under co-generation. 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.

11. 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.

12. The counsel for petitioner has relied on several orders passed by the APERC on the aspect that is involved in the present petition. Suffice to state, the APERC rendered the findings based on the judgments of the Hon'ble ATE, which are in fact not attained finality, as such, cannot be relied upon. That apart the orders of the APERC can't 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.

13. 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 that the that the status of renewable source or not has to be decided by the renewable energy development authority i.e., by NEDCAP and not by APERC. In the

case of Telangana State, it is the Telangana State Renewable Energy Development Authority (TSREDCO) to ascertain whether the unit of petitioner is renewable source or not. As of now there is no material before this Commission to say that the unit of the petitioner is a renewable source so as to treat for the purpose of RPPO.

14. The counsel for petitioner further 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 25th 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.

15. Coming to the aspect of satisfying that it is a renewable source the pleadings no way contemplate that the Ministry of New and Renewable Energy (MNRE) 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 for being considered under RPPO.

16. The respondents have rightly pointed out that the petitioner is dependent on fossil fuels for generation of electricity through the means of heat recovery produced thereof. Keeping in mind the need that fossil fuels cannot be the basis for generation the petitioner's plant, cannot be termed as renewable source.

17. Adverting, to the discussion and the opinion expressed above coupled with the observations of the Hon'ble Supreme Court, this petition fails and is accordingly dismissed. In the circumstances of the case, the parties shall bear their own costs.

18. Before parting with this case, the Commission would like to make it clear that the observations made by it in O. P. No. 31 of 2020 would stand to be limited period, for which it is made and further it would not be carried for the period subsequent to this order. The SLDC and the licensee shall ensure compliance of the RPPO in terms of the observations made hereinabove for future period.

This order is corrected and signed on this the 10th day of January, 2023.

Sd/-	Sd/-	Sd/-
(BANDARU KRISHNAIAH)	(M. D. MANOHAR RAJU)	(T. SRIRANGA RAO)
MEMBER	MEMBER	CHAIRMAN

//CERTIFIED COPY//