



TELANGANA STATE ELECTRICITY REGULATORY COMMISSION
5th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500 004

O.P.No.27 of 2022

Dated 21.06.2022

Present

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

Between:

M/s Penna Cements Industries Limited,
Laxminivas 705, Road No.3,
Banjara Hills, Hyderabad – 500 034.

... 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. Sri Deepak Chowdary, Advocate representing Sri Challa Gunaranjan, Advocate for petitioner appeared and there is no representation from respondents on 18.04.2022. The matter having been heard and having stood over for consideration to this day, the Commission passed the following:

ORDER

The petitioner has filed a petition under section 86 (1) (e) of the Electricity Act, 2003 (Act, 2003) read with clause 11 of Regulation No. 2 of 2018, seeking exemption from application of the Regulation No.2 of 2018 by treating its waste heat recovery

system (WHRS) as renewable source with an installed capacity of 7 MW. 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, 1991 in the year 1956 and is engaged in the business of manufacturing and sale of cement. The petitioner is operating in one of its cement manufacturing plants at Ganeshpahad Village, Damarcherla Mandal, Nalgonda District a WHRS co-generation power plant with a total capacity of 7 MW. The integrated plant consists of a cement plant with total installed capacity of 1.24 MTPA and a clinker plant with total installed capacity of 1.0 MTPA. 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 in-house energy requirements, the petitioner has commissioned WHRS which generates electricity with an installed capacity of 7 MW.
- b. It is stated that the petitioner's WHRS plant is a 'co-generation' 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 (which otherwise would have been let off as waste heat into the environment), without burning of any additional fuel and thus by reducing CO₂ emissions, making it environmentally friendly.
- c. It is stated that about 185000 nm³/hr hot flue gases at temperature of 335° C are emanating from the Pre-heater and 70812 nm³/hrs at temperature 380° C 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 WHRS. The hot flue gases from pre-heater and cooler are passed through boiler to generate steam. The steam drives the turbine for generation of electricity. The exhaust steam from turbine is cooled through water cooled condenser and recycled back to the boiler.

- d. 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 also reduces thermal pollution by reducing CO₂ emissions, and thus making it environmentally friendly.

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

- i. The raw material limestone is crushed to -80 mm size and loaded in horizontal 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 pre-defined 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 and is called 'Kiln Feed'.
- ii. The raw mix (kiln feed) stored in the silo is then heated to a sintering temperature in a 5-stage preheater by hot gas coming from the combustion chamber and rotary kiln. The pre-heated kiln feed is partially calcined with the help of a pre-calcinator. Partially calcined kiln feed is then fed into the main burner rotary kiln, where it is completely calcined and forms clinker at a temperature of 1350° C to 1400° 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° C -1450° C to approximately 80° C -100° C. It is

stated that approximately around 30 kWh of electricity can be generated per tonne of clinker, from a 5 stage pre-heater kiln.

- iii. 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. OPERATION OF WHRS PLANT:

- i. 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. 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.
- ii. 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 water cooled condenser.
- iii. The condensate return from condenser shall be taken through the Ejector GVC to the condensate pre-heater coils. The pre-heated water from condensate pre-heater is taken to de-aerator and to Boiler Feed Water Pump (BFWP). BFWP transports the hot water to the respective economizers, evaporators and super heaters placed in each Boiler. The superheated steam from each super

heater coils are collected in a Common Steam Distribution Header (CSDH).

- iv. The superheated steam from CSDH shall be fed into the turbine to rotate the turbine which in turn rotates the generator and electricity is generated.
- e. 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) (REC) Regulation. Clause 3 of the said regulation provides for the RPPO and clause 3.1 requires every obligated entity in the Telangana State to purchase of quantum of 6% to 8% of its total purchase of electricity during FY 2018-19 to 2021-22 from renewable energy sources. The purchase of RECs is also treated as fulfilment of the prescribed RPPO. The regulation, which was subsequently notified on 30.04.2018 as Commission's Regulation No.2 of 2018.
- f. It is stated that the petitioner company has a CMD of 0.5 MVA with respondent for manufacturing cement and also operates a coal based captive power plant of installed capacity of 77 MW. The petitioner company also generates 7 MW power through its co-generation for WHRS. The petitioner has RPO to the extent of 6% (Solar-5.33% and non-solar-0.67% for FY 2018-19) under section 86(1) (e) of the Act, 2003. The petitioner company is also having another unit at Tandur with a CMD of 19.35 MVA with respondent and also consumes Open Access power supplied from Ganeshpahad power plant.
- g. 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 7 MW and

the same was synchronized on 10.09.2016. It is further stated that, if this waste heat generated during its cement manufacturing process is not used for generating electricity, it would be emitted into the air as CO₂ discharge. Therefore, the petitioner stated that it is entitled for exemption from its RPPO obligations and redressal of the same from the Commission through the present petition.

- h. It is stated that clause 11 of the regulation enables the Commission to entertain an application from *inter-alia* 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 regulation.
- i. It is stated that the petitioner company operates a captive power plant which uses co-generation and has no further RPPO under section 86 (1) (e) of the Act, 2003. It is stated that the petitioner company has installed WHRS wherein the waste heat available in the furnace flue gases hereby generating is utilized to generate upto 7 MW power, which heat otherwise would be let into air as CO₂ discharge. It is stated that the petitioner company is entitled for being exempted from the RPPO obligation.
- j. It is stated that the renewable power purchase obligation that is Regulation 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-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 distribution licence."

Further, section 2(12) of the Act defines co-generation as follows:

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

- k. It is stated that as per Section 86 (1) (e) of the Act 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 co-generation and generation of electricity from renewable sources in section 86 (1) (e) of the Act, 2003 was to ensure that both the generators i.e., 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, the petitioner is generating up to 7 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 is entitled for the exemption provided under clause 11 of Regulation No. 2 of 2018.
- l. It is stated that the similar contention with regard to the interpretation of the provisions of section 86 (1) (e) of the Act came up for consideration before the Hon'ble Appellate Tribunal for Electricity (APTEL) in Appeal No.57 / 2009 dated 26.04.2010 and the Appellate Tribunal has held that the benefit of the provisions of section 86 (1) (e) is also applicable to the co-generation units and the said judgment squarely applies to the facts of the case.

m. It is stated that apart from the above case, similar contention was also decided by the Hon'ble APTEL in Appeal No.54 / 2012 dated 30.01.2013 and the Hon'ble APERC also similarly granted exemption to Rashtriya Ispat Nigam Limited and Rain Cements Limited and Penna Cements. The ratio laid down in the above judgments is equally applicable to the facts of the petitioner's case and the petitioner is entitled for exemption from the purview of RPPO. 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 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 cogeneration 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."

- n. It is stated that the Hon'ble APTEL 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 co-generating units beyond the RPO obligations, there is no obligation to purchase RE Certificates or consume renewable energy, separately in order to meet their RPP obligations.
- o. It is stated that the contention that it was the intention of the legislature that co-generating would be exempt from meeting RPPO obligations is buttressed by the legislative and judicial history resulting in the issuance of RPO Regulations, 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 (RPO Regulations 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 co-generation 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.

- p. It is stated that on 06.08.2016, the Andhra Pradesh Electricity Regulatory Commission (APERC), after relying upon the judgment passed by the Hon'ble Tribunal 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 co-generation (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 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. No. 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.”

- q. It is stated that thereafter, the Commission issued the draft APERC 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.
- r. It is stated that on 17.01.2018, the Commission had initiated the process of making regulation for the purpose by placing the draft TSERC Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy / Renewable Energy Certificates) Regulations, 2018 providing its view on various comments / objections / submissions made by the parties on the draft TSERC Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy / Renewable Energy Certificates) Regulations, 2018. Upon receipt of comments / objections / submissions, a public hearing was held and the final TSERC Renewable Power Purchase Obligation (Compliance by Purchase of Renewable Energy / Renewable Energy Certificates) Regulations, 2018 was issued. It is noteworthy that, an issue was raised whether consumption of electricity from waste heat recovery co-generation plant is to be treated towards fulfilment of RPPO requirement. The Commission stated that the issue of exemption of co-generation plants from complying with RPPO requirement is considered by it in O. P. No. 7 of 2016 and the said has attained finality.
- s. It is stated that on 06.08.2016, the Hon'ble APERC, after relying upon the judgment passed by the Hon'ble Tribunal 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 co-generation (irrespective of the nature of fuel used) is to be promoted. Therefore, co-generation plants are to be exempted from complying with RPPO.

- t. It is stated that it may be noted that recently by the order dated 07.09.2020, the Hon'ble APERC in O.P.No.11 of 2020, in an identical factual scenario held, after extensively discussing the case laws stated above, that co-generation 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 RPPO 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 case law 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. Vs. 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.”

- u. 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 RPO obligations. Thus, in terms of the law laid down by the various SERC's, it is imperative that power consumed from a co-generation plant ought to be considered for setting off the RPO obligations of an obligated entity (in addition to the existing dispensation provided by Ld. APERC). It is stated 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.
- v. It is stated that without prejudice to the above, 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 co-generation 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.

- w. 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, Government of India, has vide Notification S. O.3 067 (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.
- x. It is stated that accordingly, the electricity generated by it and used for captive purpose supplemented through the process of co-generation using the waste heat industries from flue gas is to be exempted from RPO and for the said purposes the petitioner is constrained to file the present petition.

2. Therefore, 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 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 renewable power purchase obligation (RPPO) by the obligated entities as per clause 6 of TSERC Renewable Power Purchase obligation (Compliance by Purchase of Renewable Energy /Renewable Energy Certificates) Regulation, 2018 (Regulation No. 2 of 2018).

b. It is stated that as per clauses 5.2.4, 3.1 and 2.10 of Regulation No. 2 of 2018, every captive consumer who owns a captive generating plant based on conventional fossil fuel with installed capacity of 1 MW and above and every open access consumer having contract demand of 1 MW and above 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

They may also fulfil their RPPO through purchase of RECs (Renewable Energy Certificates).

c. It is stated that the Commission has passed an order on 09.03.2021 in O. P. No. 31 of 2020. In the order, the Commission has expressed its view in para (36) that –

“... .. any consumer consuming electricity from captive co-

generation plant or captive co-generation plant using WHR unit beyond its RPPO target from 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 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.”

- d. It is stated that later the Commission has passed orders on 14.03.2022 (in O. P. No. 20 of 2020 between M/s Navabharath Ventures Limited Vs. TSTransco, TSNPDCL; O. P. No. 21 of 2021 between M/s The India Cements Limited Vs. TSTransco, TSSPDCL; and O. P. No. 22 of 2021 between M/s My Home Industries Limited Vs. TSTransco, TSSPDCL;) clearly mentioning the following points:
- i) The Petitioner’s Plant dependent on fossil fuels for generation of electricity through the means of Waste Heat Recovery produced thereof, cannot be considered as Renewable Source.
 - ii) 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 this order.
- e. It is stated that in the point 4 (A) (ii) of the petition, it is clearly mentioned by the petitioner that coal is used as fuel to provide the heat required to convert the kiln feed into clinker.
- f. It is stated that in point (6) of the petition, the petitioner submitted that:
- i) It is a cement manufacturing company having one of its units at Ganeshpahad and also operates a coal based captive power plant of capacity 77 MW and also generates 7 MW power through its co-generation from WHRS.
 - ii) It is also having another unit at Tandur and also consumes Open

Access power supplied from Ganeshpahad Power Plant.

- g. It is stated that in point (7) of the petition, the petitioner submitted that it has conceived its WHRS plant for utilising the waste heat available in the hot flue gases generated during its cement manufacturing process with a generation capacity of 7 MW and the same was synchronized on 10.09.2016 and hence entitled for exemption from its RPPO obligations.
- h. It is stated that keeping in view of all the above orders and petitioner points submitted, the following can be concluded:
- i) M/s Penna Cements Industries Limited (VKB1217) located at Belkatur Village, Tandur Mandal, Vikarabad District, Telangana State is consuming power from: The petitioner is consuming power from:
- M/s Penna Cements Industries Limited (NLG718) located at Ganeshpahad Village, Damercharla Mandal, Nalgonda District which consists of:
 - One coal based CPP of capacity 77 MW (2 units of capacity 38.5 MW each)
 - WHR of 7 MW
 - From IEX
- ii) In view of the above, the consumer needs to fulfil RPPO for the above power consumed as per the Regulation No.2 of 2018.
- iii) As the petitioner prayed before the Commission to clarify and / or exempt the petitioner company from the RPPO in view of the consumption of power generated from its co-generation units through waste heat received from flue gases, it is to make clear that-
- The Commission order in O.P.No.31 of 2021 dated 09.03.2021 vide para (36) has clearly mentioned regarding the RPPO for captive co-generation plants using WHRS that “any consumer consuming electricity from captive co-

generation plant or captive co-generation plant using WHRS unit:

- Beyond its RPPO target for that specific year: shall not be required to purchase additional renewable energy/RECs for that year.
- Lesser than its RPPO target for that specific year: the remaining consumption till the RPPO target shall be met through purchase of renewable energy/RECs to meet the RPPO target.” And later the Commission issued orders vide O.P.No.20 of 2020, O. P. No. 21 of 2021 and O. P. No. 22 of 2021 dated 14.03.2022 wherein it is clearly mentioned that –
 - The Petitioner’s Plant dependent on fossil fuels for generation of electricity through the means of WHR produced thereof, cannot be considered as Renewable Source, and
 - 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 this order.”

iv) Hence, the petitioner which is dependent on fossil fuel for generation of electricity through the means of WHR produced thereof cannot be considered as Renewable Energy source and as 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 forward for the period subsequent to this order. Therefore, the petitioner cannot be exempted from RPPO in view of its power consumption through WHR plant by denying the request of the petitioner.

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

j. It is respectfully prayed that the Commission may be pleased to dismiss the petition and may pass such other order or orders as the Commission

deems fit and proper in the facts and circumstance of the case.

4. 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 during hearing 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 treating the petitioner’s WHRS plant as a renewable source. The petitioner has not filed any submissions to the original proceedings in O. P. No. 31 of 2020 initiated by the Commission. The Commission had, while disposing of the petitions filed by M/s. India Cements and others, limited the application of RPPO compliance to 2018-19 only. The same relief may be granted in this petition also as has been observed in the orders referred above. The Commission pointed out that SLDC will initiate action in the matter and the Commission will take up the compliance aspect separately. However, the counsel for petitioner pointed out that the relief may be considered to a limited extent for the present in this case and it will be constrained to file every year seeking such exemption. As there is no representation for the respondents and nothing more can be added by them apart from the findings reached already by the Commission, “

5. As rightly pointed out by the Respondent No.1 this Commission while dealing with the compliance of RPPO obligation in terms of Regulation No. 2 of 2018 in O. P. No. 31 of 2020 based on the report of TSSLDC, at para 36 of the Order of that case, the Commission expressed its view to the effect that any consumer consuming electricity from captive co-generation plant or captive co-generation plant using Waste Heat Recovery (WHR) unit beyond its RPPO target for any specific year as per Regulation No.2, shall not be required to purchase additional renewable energy / REC for that year and in case any consumer consuming electricity from captive co-generation plant or captive co-generation plant using WHR less than its RPPO target,

the remaining consumption till the RPPO target shall be met through purchase of renewable energy / REC to meet the target. The proceedings of that matter had a limited scope of in the context of compliance of RPPO by obligated entities upon a report submitted by TSSLDC. Further, 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 WHR 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.

6. The counsel for petitioner made strong reliance over the orders passed by Hon'ble APTEL in Appeal No. 57 of 2009, 54 of 2012, 322 along with 333 of 2016 and 146 of 2017 and the Hon'ble APTEL in these matters rendered findings with regard to treating co-generation plants as renewable source and to be considered as being part of compliance of RPPO. Since the facts and circumstances of the case of the petitioner are different from the facts and circumstances therein, the findings therein may not constitute a binding precedent more so when appeals against those findings / judgements are pending before the Hon'ble Supreme Court. This Commission notices that an appeal has been filed before the Hon'ble Supreme Court in the matter of M/s Emami Paper Mills Limited vide Civil Appeal No(s). 5466 / 2013 and it also refers to Civil Appeal Nos. 5467 / 2013 and 6797 / 2013. In view of pendency of appeals before Hon'ble Supreme Court the findings arrived by the Hon'ble APTEL cannot be treated as final word on the aspect of treating the WHRS as a renewable source under co-generation. The Hon'ble Supreme Court so far not decided any of the appeals filed by the Gujarat Commission in that regard except dismissing the appeal filed by the

Karnataka Commission on the ground of delay and not on merits. In the absence of final verdict, this Commission can't rely on the judgements referred by the petitioner.

7. The counsel for petitioner made reliance over the several orders passed by APERC on the aspect which involved in the present petition. Suffice to state, the APERC rendered the findings basing on the Judgements of Hon'ble APTEL, which are in fact not attained finality, therefore they 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 regulation made by the Commission nor based on a conclusive reasoning as affirmed by the Hon'ble Supreme Court. At best the orders of APERC will have only persuasive value. The pleadings of the petition indicating as if the petition is before the APERC and the petitioner failed to distinguish between the Commissions' as to which Commission it is making submissions thereof.

8. The Hon'ble Supreme Court had an occasion to consider the issue of compliance of RPPO and the treatment of obligated entities including captive power plants. It is the observation of Hon'ble Supreme Court that "the Coal dominates the Thermal Power Generation which results in Green House Gases resulting in global warming and the Article 51A(g) of the Constitution of India cast a fundamental duty on the citizen to protect the natural environment and 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 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."

9. The Hon'ble High Court of Andhra Pradesh as it was then, while disposing the Writ Petition filed by M/s Agri Gold Projects Limited Vs APERC (erstwhile) observed that the status of renewable source or not has to be decided by the renewable energy authority i.e., NEDCAP and not by APERC.

10. 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. Since it is the burden of the TSREDCO or like agency to ascertain about renewable source or not this Commission declined to venture in to the field of declaring the unit of petitioner to be a renewable source and thereby treat it for ascertaining RPPO compliance.

11. The counsel for petitioner drew the attention of the Commission over a Memo dated 23.01.2019 made by the Ministry of Environment and Forest wherein the Ministry had exempted certain power plants from environmental clearance. The whole text of this Memo indicating that a communication was issued in the shape of Memo in the context of environmental issues and not with reference to generation and consumption of the electricity from such source. Further the contents that appears is an office order and had no reference to any statutory provisions under which it was sought to be issued. So, this Memo / communication cannot be the basis for this Commission to declare or treat the petitioner's WHRS as a renewable source.

12. The pleadings of the petition no way indicate 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 few of them along with such other sources as approved by MNRE. This Commission in the absence of any material in support of the claim of the petitioner not inclined to declare a particular source to be renewable source. Thus, the petitioner has not made any case for treating its WHRS plant as a renewable source for being considered under RPPO.

13. As rightly pointed out by Respondent No.1 the petitioner is dependent on fossil fuels for generation of electricity through the means of heat recovery produced thereof and that the fossil fuels cannot be the basis for generation for the plant of petitioner therefore it can't be termed as renewable source.

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

This order is corrected and signed on this the 21st day of June, 2022.

Sd/-
(BANDARU KRISHNAIAH)
MEMBER

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

Sd/-
(T.SRIRANGA RAO)
CHAIRMAN

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