

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai 400 005
Tel. No. 022 22163964/65/69 – Fax 022 22163976
E-mail mercindia@mercindia.org.in
Website: www.mercindia.org.in

Case No. 35 of 2008

In the matter of
Petition filed by M/s Century Rayon for Clarification arising out of RPS Order
dated 16.08.2006 in Case No. 6 of 2006

Shri A. Velayutham, Member
Shri S. B. Kulkarni, Member

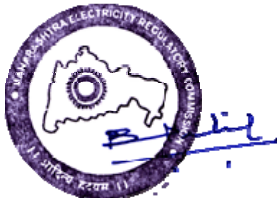
ORDER

Dated: December 19, 2008

M/s Century Rayon submitted a Petition under affidavit before the Commission on April 11, 2008, and made a further submission on June 11, 2008, inter alia seeking Clarification as to whether the Co-generation Power Plant owned by M/s Century Rayon is covered by the Renewable Portfolio Standard (RPS) Order passed by the Commission in Case No. 6 of 2006 dated August 16, 2006.

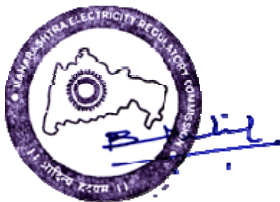
2. M/s Century Rayon, in its Petition, prayed as under:
 - (a) *“that this Hon’ble Commission be pleased to clarify that the ruling given by this Hon’ble Commission, as specified in paragraph 2.6.7 of the Order, is not applicable to Century Rayon;*
 - (b) *For such further and other reliefs as the Hon’ble Commission may deem fit.”*

3. M/s Century Rayon Ltd, in its Petition, submitted as under:
 - a) Century Rayon Ltd has installed a Co-generation Power Plant with a capacity of 3 x 3.5 MW. The steam generated is used for meeting the production process requirements and power is generated from the steam to optimize thermal efficiency.



- b) Installed co-generation plant is inside the premises of Century Rayon Ltd and used only for self use, but is connected to the Maharashtra State Electricity Distribution Company Limited's (MSEDCL) grid for optimization and not for any wheeling or banking of energy.
- c) The Co-generation Plant is connected with the grid and working in parallel with the grid to optimize the power generation and draw balance power requirement; but not for transmitting or wheeling the co-generated power through MSEDCL's system.
- d) Century Rayon Ltd is aggrieved due to the Notice received from Maharashtra Energy Development Agency (MEDA) dated September 14, 2007 mandating the Commission's RPS Order dated August 16, 2006 for all distribution licensees in the State, open access users and captive consumers, whereas Century Rayon Ltd has Co-generation Power Plant.
- e) The RPS Order dated August 16, 2006 is applicable to the licensees generating electricity out of the Captive Power Plant and not applicable to Century Rayon Ltd as the 3 x 3.5 MW Co-generation Power Plant set up by it for generating 6 MW power is covered by the category of co-generation and not Captive Power Plant.
- f) Under the Electricity Act, 2003 (EA 2003), Co-generation is defined as "a process, which simultaneously produces two or more forms of useful energy including electricity". The National Electricity Policy (NEP) states that industries in which, both process heat and electricity are needed are well suited for co-generation of electricity.
- g) Century Rayon Ltd vide its letter dated December 27, 2007 clarified to MEDA that it is not required to purchase the renewable energy (RE) in terms of the RPS Order dated August 16, 2006.
- h) Whether Co-generation Power Plant is covered by the Commission's RPS Order dated August 16, 2006 can only be clarified by the Commission.

4. MSEDCL, through an affidavit, submitted its para-wise comments to the Commission on June 20, 2008, which are summarised as under:



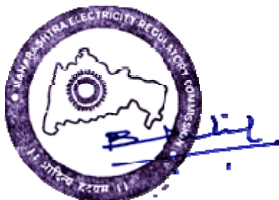
- a) MEDA, being the nodal agency, should submit the comments in the matter pertaining to applicability of Renewable Purchase Specification to open access users and captive consumers.
- b) MEDA has to verify whether the said co-generation plant is covered under RPS Order and MEDA should submit its comments to the Commission.
- c) The Commission, vide its RPS Order dated August 16, 2006, has directed as under:

“2.1.3 Generation from all types of renewable energy sources as approved by the Ministry of Non-Conventional Energy Sources, Govt. of India shall be considered. As on date, the Commission has issued Orders in case of following technologies and generation from these technologies would qualify under this RPS framework:

- *Non-fossil fuel (incl. bagasse) based co-generation projects*
- *Wind energy sources*
- *Biomass (based on rankine cycle technology)*
- *Small Hydro power projects*
- *Municipal Solid Waste*

2.1.4 Further, any new technology would qualify as ‘renewable energy’, only after the Commission has approved the technology based on the MNES approval.”

5. MEDA, vide its letter dated July 16, 2008, submitted that the Commission in its RPS Order dated August 16, 2006 has not explicitly excluded co-generation units from the RPS regime. The fundamental point of the RPS Order is to encourage power generated from non-fossil fuel sources. Century Rayon Ltd has the power plant, in which, they use HFO that emits CO₂ and pollutes the environment. Co-generation is just a part of their overall power project scheme using fossil fuel. Incidentally, Century Rayon Ltd appears to be member of Captive Power Producer Association (CPPA) as its name appears in the member list of CPPA who has filed petition before Commission on similar grounds. MEDA submitted that the renewable purchase obligation under RPS Order dated August 16, 2006 is applicable in case of Century Rayon Ltd as well.



6. The Commission, vide its Notice dated July 9, 2008 scheduled a hearing in the matter on July 23, 2008, which was subsequently postponed to August 12, 2008 at the request of the Petitioner. The Commission also directed Century Rayon Ltd to serve a copy of its Petition along with its accompaniments to the four authorised Consumer Representatives.

7. Subsequently, Century Rayon Ltd, vide its letter dated August 6, 2008, submitted technical explanation of co-generation plant and captive power plant as under:

a) Co-generation Power Plant (CHP):

CHP is simultaneous production of electricity and heat using fuel source. Co-generation is not a single technology but integrated energy system that provides onsite generation of electrical power and heat recovered for heating, drying, vaporization and refrigeration for process applications.

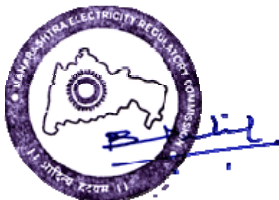
Co-generation steam turbine normally generates electricity as a by-product of heat (steam) generation. Co-generation plant caters to the requirement of both process steam and power. Co-generation requires less fuel to produce a given output. Since less fuel is burned to produce each unit of energy output, it results in reduced air pollution and green house gas emission and system efficiency is also higher.

Century Rayon Ltd has installed Cogeneration based Power Plant using 3 x 3.5 MW back pressure steam turbine (TG set). Steam is produced in the Boiler at 45 kg/cm and 430 degrees, and is fed to the back pressure steam turbine. Its exhaust steam at 2.3 kg/cm and 190 degree temperature is supplied to the manufacturing process section for heating, drying, vaporization and refrigeration purpose.

Only 14% of heat energy of steam is utilized to generate electrical power and remaining 86% of heat energy of steam is utilized in manufacturing process.

b) *Captive Power Plant (CPP):*

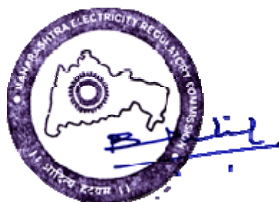
Captive power refers to electrical power generation from a unit set up by industry for its exclusive power generation. The heat supplied to the turbine generates the power and exhaust steam is condensed in the condenser. Hence, major steam is wasted in environment, reducing efficiency of the Captive Power Plant as compared to Co-generation Power Plant. The average efficiency of CPP is 36%.



- c) Co-generation arrangement increases plant efficiency to a level higher (additional gain in efficiency by approximately 18.17%) than that required under RPS obligation at 6%. As a result, fossil fuel saving in Co-generation plant is much higher than the RPS obligation of 6%.

8. At the hearing held in the matter on August 12, 2008, Shri Prakash D. Shah, Advocate appeared for Century Rayon Ltd. Shri Girish Rane appeared for MEDA. Shri Kiran Gandhi, Advocate appeared for MSEDCL. Shri Prakash Shah submitted that Century Rayon Ltd has filed the Petition for clarification with regard to the Commission's RPS Order dated August 16, 2006. The main contention of Century Rayon Ltd is that it has a co-generation power plant and hence, is not covered by the RPS Order. Shri Prakash Shah submitted that the RPS Order dated August 16, 2006, is pursuant to Section 86(1)(e) of EA 2003, stipulating the functions of the State Commission, viz., *"promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution license"*.

9. Shri Prakash Shah submitted that Paragraph 2.6.7 of the Commission's RPS Order dated August 16, 2006 in Case No. 6 of 2006 does not apply to Century Rayon Ltd. Shri Prakash Shah submitted that the installed capacity of CPP is 12.6 MW and co-generation capacity is 10.5 MW. Both plants are based on fossil fuel. In the said cogeneration plant, steam is also generated and used for process industry purposes. Shri Prakash Shah argued that Paragraph 2.1.3 of the RPS Order dated August 16, 2006 identifies those technologies that would be covered within its ambit for RPS framework. This provides inter alia "Non-Fossil Fuel (including bagasse) based co-generation projects". Therefore, Fossil Fuel based co-generation projects are outside the purview of the RPS Order. Shri Prakash Shah submitted that MEDA's claim for the implementation of RPS Order by Century Rayon Ltd is not sustainable and sought clarification from the Commission in the matter. Shri Prakash Shah further argued that EA 2003 does not make any distinction of power produced from fossil fuel. Co-generation and captive power plants are two different aspects. Co-generation plants need to be promoted and cannot be equated with captive power plants. Shri Prakash Shah argued that Century Rayon Ltd is not required to purchase RE power as it is not a captive power plant or captive consumer.



10. MSEDCL submitted that the Commission's RPS Order applies to all types of generation.

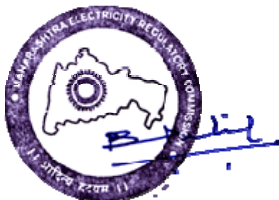
11. The Commission observed that the issue under consideration is not about which source (captive or cogeneration) is covered under RPS Order but about which entity (Eligible Person) has been covered for RPS obligations under RPS Order. Open access user(s) and captive consumer(s) apart from distribution licensees are covered within the ambit of the RPS Order for the purpose of RPS obligations irrespective of which source they are receiving the power from. Further, the RPS Order provides that the RPS percentage shall be applicable on the consumption, which has nothing to do with the source of generation.

12. MSEDCL submitted that Section 86(1)(e) of EA 2003 does not distinguish the "sources" based on the source of generation, and therefore, Century Rayon Ltd is covered by the RPS Order dated August 16, 2006 particularly under Paragraph 2.6.8 which again covers within its ambit "conventional generation or procured from any source".

13. Shri Prakash Shah argued that the issue is whether Section 86(1)(e) of EA 2003 is applicable to Century Rayon Ltd or not, and submitted that Section 86(1)(e) of EA 2003 has two parts, viz., (i) promote co-generation and (ii) generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person. Shri Prakash Shah argued that as regards Century Rayon Ltd, the aforesaid Section provides that co-generation is to be promoted. The Section does not require co-generation plants to purchase electricity from renewable sources of energy.

14. MSEDCL submitted that the public at large were at notice before the passage of the Commission's RPS Order dated August 16, 2006. MSEDCL submitted that the Petition filed by Century Rayon Ltd is a Review Petition and Clarifications cannot be sought by them.

15. Shri Prakash Shah submitted that the Commission needs to clarify as to whether MEDA's claim needs to be sustained and therefore it needs to be clarified as to whether Century Rayon Ltd is covered by the said RPS Order. Shri Prakash Shah further

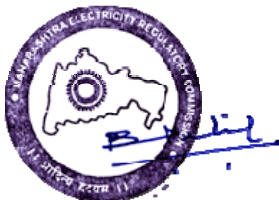


submitted that the said RPS Order cannot take within its ambit co-generation plants but can apply to captive power plants, which are not co-generation plants. Shri Prakash Shah submitted that Century Rayon Ltd has installed 3 x 3.5 MW co-generation plant for generating power. The plant produces more power when compared to other CPPs. Century Rayon Ltd is a process industry and in the process also generates electricity. Century Rayon Ltd is saving as high as 21% of fossil fuel. Further, it is also registered for carbon credit, which ultimately would reduce carbon emission. It is conserving green house gases.

16. Shri Prakash Shah referred to Century Rayon's submission filed before the Commission on August 6, 2008, pointing out fuel saving and generation of more power as compared to other captive plants. Shri Prakash Shah further submitted that a captive power plant has an efficiency of 40-50%, whereas Century Rayon has an efficiency of 85% to 90%. Shri Prakash Shah contended that RPS obligation saves only 6% to 7% of the fossil fuel, whereas Century Rayon Ltd is saving 21% of the fossil fuel. Shri Prakash Shah further stated that Century Rayon Ltd is also registered with the Ministry of Environment & Forests (MoEF) for Carbon Credit, which means that the MoEF has also recognized that M/s. Century Rayon Ltd is reducing carbon emission, thereby, conserving green house gases also. Shri Prakash Shah submitted that being a co-generation plant, Century Rayon Ltd is not required to purchase electricity from renewable sources of energy.

17. Shri Girish Rane submitted that Century Rayon Ltd's plant uses heavy fuel oil and coal. Co-generation can be done using fossil fuels or Non-fossil fuels such as bagasse. However, for the purpose of Section 86(1)(e) of EA 2003, cogeneration using non-fossil fuels such as bagasse has only been recognised.

18. Shri Kiran Gandhi referred to MEDA's letter dated July 16, 2008 and submitted that the said letter records that Century Rayon Ltd's plant is a CPP. Shri Kiran Gandhi referred to Paragraph 2.1.3 of the RPS Order and submitted that the said Paragraph provides the types of generation that is covered by the RPS Order, particularly "Non-Fossil Fuel (including bagasse) based co-generation projects".

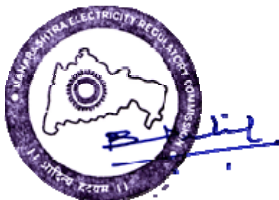


19. Shri Prakash Shah referred to Section 2(12) of EA 2003, and submitted that the legislature has not made any distinction between fossil fuel based co-generation plants and non-fossil fuel based co-generation plants. Therefore, the RPS Order dated August 16, 2006 cannot make any such distinction.

20. Having heard the Parties and after considering the material placed on record, the Commission hereby rules as under:

21. The main contention of the Petitioner is that renewable purchase obligation as outlined under para 2.6.7 of Commission's RPS Order (Case No. 6 of 2006) is not applicable in its case as it has set up a Co-generation Plant, which is an efficient way of generating power and steam even though such co-generation is based on fossil fuel sources.

22. M/s Century Rayon Ltd, is generating electricity by way of co-generation as well as consuming such electricity generated through co-generation route, albeit based on fossil fuels. In terms of Section 2(12) of the EA 2003 "Cogeneration" means a process which simultaneously produces two or more forms of useful energy (including electricity). This Sub-Section is clear. It refer to a "process". However, a "Captive generating plant" in terms of Section 2(8) means a power plant set up by any person to generate electricity primarily for his own use and includes a power plant set up by any co-operative society or association of persons for generating electricity primarily for use of members of such cooperative society or association. This sub-section stresses on the criteria that electricity should be generated "primarily for his own use". It is averred in the Petition that the installed co-generation plant is inside the premises of Century Rayon Ltd and used only for self-use. In the circumstances, the Commission cannot sustain the argument made by the Petitioner that it is not covered by the Commission's Order dated 16.08.2006 because it does not have a captive power plant. The Petitioner has itself stated in the petition that the installed co-generation plant is inside the premises of Century Rayon Ltd and used only for self use. The Commission is not satisfied with the inference drawn that a "captive power plant" cannot have a process which simultaneously produces two or more forms of useful energy (including electricity). In terms of paragraph 2.6.8 of the Commission's Order dated 16.08.2006, the RPS percentage specification is applicable on that part of the consumption which is being generated from conventional generation. In



the present case, the RPS percentage specification is applicable on the quantum of co-generated power. M/s Century Rayon Ltd has mixed up two distinct issues, viz., (i) applicability of RE Purchase Obligations on its consumption and (2) whether fossil fuel based cogeneration is included as a source for complying with the RE Purchase Obligations.

23. Para 2.8 of the RPS Order (Case No. 6 of 2006) specifies the 'Entities to be covered under RPS Regime', which needs to be scrutinised for applicability of RE Purchase Obligations for M/s Century Rayon Ltd, whereas Para 2.1 of the above-said RPS Order specifies the 'Eligible RE sources' for complying with the RE Purchase Obligations, which needs to be scrutinised to ascertain whether co-generation based on fossil fuels meets the requirement of RE sources for the purpose of RPO compliance.

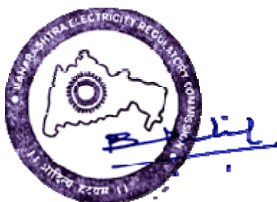
24. The relevant extract of the Commission's Rulings under Para 2.8.7 and Para 2.8.11 of the RPS Order on 'Entities to be covered under RPS regime' is reproduced below:

"2.8.7 Section 86(1)(e) of EA2003 stipulates that the Commission is required to promote sale of RE to all 'persons', as stated below:

"86. The State Commission shall discharge following functions, namely -

*"(e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with grid and **sale of electricity to any person, and also specify**, for purchase of electricity from such sources, a percentage of total consumption of electricity in the area of distribution licensee". (emphasis added)*

"2.8.11 Therefore, it would only be appropriate that OA and Captive consumers are also subjected to RPS regime. The Commission hereby rules that the minimum percentage as proposed under clause 2.6.8 shall be applicable to all existing and future distribution Licensees in Maharashtra as well as to open access users and captive consumers. However, it is recognised that an elaborate energy accounting, reconciliation and billing mechanism will have to be put in place to implement such RPS to OA/Captive consumers. The 'RPS Operating



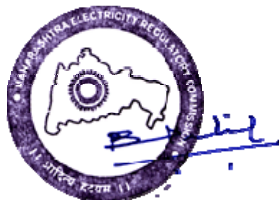
Mechanism’ as discussed under subsequent paragraph intends to address this implementation concern.” (emphasis added)”

25. In this context, the Commission has further clarified this issue of applicability of RE Purchase Obligations vide its Order dated November 17, 2008 in Case No. 83 of 2007 in the matter of Petition filed by M/s Captive Power Producers Association (CPPA). Under the para 17 to 20 of the said Order, the Commission has clarified that the Commission has not exempted any ‘Person’ from the applicability of renewable purchase obligations. The relevant extract of the said Order is as under:

“19. Thus, the Commission has not exempted any ‘Person’ from applicability of renewable purchase obligation, on the ground that such person is meeting its consumption (or energy requirement) by way of captive generating source whether grid connected captive source or not-grid connected captive source. The Commission has also not made any distinction in terms of the capacity of the captive installation.” (Ref. Para 19 of Order dated November 17,2008 – Case 83 of 2007).

26. According to the Petitioner co-generation is not a single technology but integrated energy system that provides onsite generation of electrical power and heat recovered for heating, drying, vaporization and refrigeration for process applications. But nonetheless, electricity is generated. In terms of the Order dated 16.08.2006, RPS percentage specification is applicable on that part of the consumption which is being generated from fossil fuel based generation.. In paragraphs 2.8.10 and 2.8.11, the Commission has given the reason that it is important that the costs and benefits of harnessing renewable energy generation within the State, are equitably distributed amongst all consumers. Therefore, it would only be appropriate that OA and Captive consumers are also subjected to RPS regime. In view of the above, the Commission hereby rules that the Renewable Purchase Obligations as outlined under Para 2.6.7 of the RPS Order is also applicable in case of the Petitioner on its electricity consumption met by way of captive generating sources or co-generation sources or open access sources.

27. As regards the issue of whether fossil fuel based co-generation qualifies as an ‘Eligible RE Source’ for the purpose of RPS compliance, the relevant extract of the Commission’s Ruling under Para 2.3.1 on ‘Eligible RE Sources’ is reproduced below:

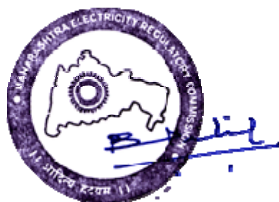


“2.1.3 Generation from all types of renewable energy sources as approved by the Ministry of Non-Conventional Energy Sources, Govt. of India shall be considered. As on date, the Commission has issued Orders in case of following technologies and generation from these technologies would qualify under this RPS framework:

- *Non-fossil fuel (incl. bagasse) based co-generation projects*
- *Wind energy sources*
- *Biomass (based on rankine cycle technology)*
- *Small Hydro power projects*
- *Municipal Solid Waste”*

28. In view of the above, it is evident that the Commission has considered generation from only non-fossil fuel based co-generation sources to be qualified as ‘Eligible RE source’ for the purpose of compliance of RE Purchase Obligations under the said RPS Order. In the case of the Petitioner, the co-generation is based on fossil fuel sources, a fact, which has been admitted by the Petitioner. Thus, electricity generation or electricity procurement based on such fossil fuel based co-generation sources is not eligible for the purpose of fulfilment of RE Purchase Obligations within the existing RPS framework outlined under the said RPS Order.

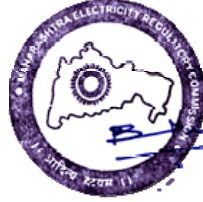
29. The argument of the Petitioner that co-generation based on fossil fuels also needs to be promoted as per Section 86(1)(e) of the EA 2003 and should also be considered as an ‘Eligible RE source’ for the purpose of RE Purchase Obligations tantamounts to seeking review of the Commission’s RPS Order. The Commission is of the finding that the present Petition, although stated to have been filed to seek clarifications, in effect, seeks to qualify Co-generation based on fossil fuels as ‘Eligible RE source’, which appear to be seeking a review in disguise without making any grounds for review. The Petition cannot be allowed because it does not fit within the tests of Regulation 85(a) of the MERC (Conduct of Business) Regulations, 2004, and therefore is not maintainable. No error in the RPS Order has been pointed out, nor any matter or evidence been shown to exist which could not have been submitted or shown to the Commission at the time of passage of the RPS Order. In fact, no such contentions have been taken at all. In effect, the Petitioner seeks that the Commission should modify its RPS Order but under the pretence of seeking clarifications. This is not permissible under law.



Accordingly, Century Rayon Ltd's Petition in Case No. 35 of 2008 stands disposed of.

Sd/-
(S. B. Kulkarni)
Member

Sd/-
(A. Velayutham)
Member



(P.B. Patil)
Secretary, MERC