

**Appellate Tribunal for Electricity
(Appellate Jurisdiction)**

Appeal No. 33 of 2013

Dated: 3rd February, 2014

**Present: Hon'ble Mr. Rakesh Nath, Technical Member
Hon'ble Mr. Justice Surendra Kumar, Judicial Member**

In the matter of:

**Harinagar Sugar Mills Ltd.,
P.O. Harinagar,
Distt. West Champaran,
Bihar-845 103**

... Appellant (s)

Versus

**1. Bihar Electricity Regulatory Commission,
Vidyut Bhawan-II, BSES Campus, J.L. Nehru Marg,
Bailly Road, Patna-800 021, Bihar**

**2. Bihar State Power (Holding) Co. Ltd.,
Vidyut Bhawan-II, J.L. Nehru Marg,
Bailly Road, Patna-800 021, Bihar**

...Respondent(s)

Counsel for the Appellant(s): Mr.H.S. Jaggi
Mr. Jai Prakash,
Mr. Amit Chandra (Rep.)

Counsel for the Respondent(s): Mr. P. Ranjan for R-1
Mr. Mohit Kumar Shah,
Mr. R. Choudhary,
Ms. Priya Ranjan,
Ms. Shilpi Shah &
Mr. Nitikesh Kumar for R-2

JUDGMENT

RAKESH NATH, TECHNICAL MEMBER

The above appeal has been preferred by Harinagar Sugar Mills Ltd. assailing the impugned order dated

30.11.2012 passed by Bihar Electricity Regulatory Commission (“State Commission”) in case no. 31 of 2012 initiated *suo motu* by the State Commission for determination of tariff for biomass based generators and bagasse based cogeneration plants for FY 2012-13 & beyond.

2. The appellant is engaged in generation of electricity through a bagasse based co-generation power project which commenced generation of electricity from the FY 2011-12. The State Commission is the first respondent. Bihar State Power Holding Co., the holding company of the Generation and Distribution Companies in Bihar is the second respondent.

3. The brief facts of the case are as under:

i) The State Commission passed an order on 21.5.2009 for purchase of power by distribution

licensee from Biomass plants and Bagasse based cogeneration plants in Bihar after following due process of law. In this order the State Commission determined the Power Purchase Obligation of the distribution company from renewable energy sources and cogeneration under Section 86(1)(e) of the Electricity Act, 2003, norms for determination of tariff for biomass power plants & bagasse based cogeneration plants and tariff applicable to such plants from 1.6.2009 onwards.

ii) Aggrieved by the order dated 21.5.2009, review petitions were filed by some renewable energy generators before the State Commission. The State Commission disposed of the review petitions by order dated 29.6.2010 by allowing revised norms for some of the parameters. The State Commission also reduced the review period or control period of the tariff from

5 years to 2 years i.e. upto 31.3.2012. Accordingly, the State Commission re-determined the tariff for purchase of power from the existing bagasse based co-generation projects commissioned between 2007-08 to 28.6.2010 and for new projects to be commissioned during 2010-11 (from 29.6.2010) and 2011-12.

iii) The State Commission initiated a *suo motu* proceeding bearing no. 31 of 2012 for determination of tariff for biomass plants and bagasse based cogeneration plants for a fresh control period from FY 2012-13 & beyond and issued a discussion paper inviting suggestions and objections from the public. The appellant also submitted its comments on the above discussion paper.

iv) The State Commission after a public hearing passed the impugned order dated 30.11.2012 adopting new norms for determination of tariff for the new Control Period.

v) The State Commission in the impugned order adopted different criteria for calculation of variable cost in respect of the existing and new bagasse based cogeneration plants.

vi) Aggrieved by the adoption of different criteria for calculation of variable cost and financial norms in respect of the existing and new bagasse based cogeneration plants in the impugned order, the appellant has filed this appeal.

4. The appellant has made the following submissions:

(A) The State Commission erred by fixing two different variable costs for bagasse based cogeneration projects for the same year and for the similarly and identically situated plants by considering different cost parameters towards fuel cost.

(B) In the review order dated 29.6.2010, the effective tariff was determined by bifurcating into fixed cost and variable cost. Whereas the fixed cost was determined for the period from 29.6.2010 to 2022-23 (i.e. 13 years), the variable cost was determined only for two years i.e. for the period from 29.6.2010 to 31.3.2012. The same variable cost was determined for then existing projects commissioned between 2007-08 to 28.6.2010 and new projects commissioned during 29.6.2010 to 31.3.2012. However, in the impugned order dated 30.11.2012, the State Commission has wrongly determined two different variable cost for existing and new bagasse based co-generation plants for the period 2012-13 to 2016-17 (5 years) without assigning any reason. The State Commission ought to have adopted same variable costs for existing as well as new plants.

(C) The impugned order has been made applicable from the date of the order dated 30.11.2012 both for the existing and the new bagasse based cogeneration plants. The State Commission ought to have fixed the tariff from 1.4.2012 for FY 2012-13 and not from the date of the impugned order i.e. 30.11.2012.

(D) The State Commission has allowed a higher return on equity to the new plants compared to the old plants. The State Commission ought to have also decided the same Return on Equity for the existing plants.

5. The respondent no. 2 has submitted that as per the review order dated 29.6.2010 the State Commission had determined the tariff for the bagasse based cogeneration plants for a control period of 13 years and therefore, the tariff for the existing plants

has to be applicable for the entire control period of 13 years. The *suo motu* proceedings no. 31 of 2012 which resulted in the passing of the impugned order was initiated for determination of tariff for those plants which were commissioned during the new control period between 2012-13 to 2016-17. The tariff determined in the impugned order would not be applicable to the existing projects which were commissioned between 2007-08 to 2011-12. Thus, the tariff determined by the State Commission for the new control period of 2012-17 in the impugned order would not be applicable to appellant's power plant which was commissioned in FY 2011-12.

6. In light of the rival submissions of the parties, the following questions would arise for our consideration:

i) Whether the State Commission has erred in determining different variable cost based on different

fuel price for the existing and the new bagasse based power plants for the new control period 2012-17?

ii) Whether the State Commission is wrong in not allowing a higher Return on Equity as allowed to the new plants in the impugned order to the existing plants whose tariff was determined by earlier orders dated 21.5.2009 and 29.6.2010?

iii) Whether the impugned order should have been made applicable from 1.4.2012?

7. Let us examine the first issue regarding variable cost.

8. We find that in the tariff order dated 21.5.2009 the State Commission fixed cost of fuel for bagasse cogeneration plants at Rs. 800 per MT with an escalation in fuel price @ 4% per annum. Considering the normative fuel cost, specific fuel consumption and auxiliary consumption, the State Commission determined the variable cost per unit for FYs 2009-10

to 2018-19. The State Commission also noted that the co-generation industry with non fossil fuel and generation with biomass fuel are in nascent stage in the State and hoped that with establishment of cogeneration and biomass based plants in the State, the Electricity Board would gain experience of development, implementation and operation of such plants. Accordingly, the State Commission determined the review period for review of tariff rate and structure as five years from the date of issue of the order. The Developers and the Distribution licensee were also directed to enter into Power Purchase Agreement (PPA) for a period of 20 years from the date of commissioning of the plant. This order was made effective from 1.6.2009 and applicable to all bagasse based co-generation projects. The State Commission also reserved the right to alter, modify or

amend any provision of this order at any time so that any fact which may have been overlooked could be incorporated or any situation emerged due to experience gained during the operation of the order, etc., could be suitably addressed in the interest of the stakeholders.

9. Three review petitions were filed against the above order dated 21.5.2009. On 29.6.2010 the State Commission disposed of these review petitions by a common order and revisited some of the norms and provisions of the original order dated 21.5.2009.

10. The modifications made in the review order dated 29.6.2010 relevant to this case are as under:

i) The State Commission keeping in view the submissions of the petitioners, provisions made in the Central Commission's Renewable Energy Regulations

and in view of the fact that the development of the renewable energy projects in the State was in nascent stage decided to reduce the review period or Control Period from 5 years to 2 years i.e. upto 31.3.2012. The State Commission decided that till such time new tariff was introduced, the tariff determined in the review order would continue.

ii) The fuel price for bagasse based cogeneration plants was enhanced from Rs. 800/MT to Rs. 1200/MT for the FY 2010-11 with escalation @ 5% per annum.

iii) The State Commission re-determined the fixed cost per unit for existing projects commissioned between 2007-08 to 28.6.2010 and new projects commissioned during FY 2010-11 (from 29.6.2010) and FY 2011-12 for a period of 2010-11 to 2022-23.

iv) The variable cost of existing and new projects was re-determined only for FY 2010-11 (from 29.6.2010) and FY 2011-12 i.e. 2 years and the variable cost both for existing and new projects was kept at the same level.

v) The effective tariff i.e. the sum of fixed cost per unit and variable cost per unit was also determined for a period of only 2 years i.e. FY 2010-11 (from 29.6.2010) and FY 2011-12.

11. The above review order dated 29.6.2010 would indicate that the State Commission had fixed the fixed charges per unit for a period of 13 years and variable cost for 2 years both for then existing power plants i.e. plants commissioned till 28.6.2010 and the new plants i.e. plants to be commissioned during 2010-11 (from 29.6.2010) and 2011-12. The variable cost for both the existing and new plants was kept as same. The review order was made applicable from 29.6.2010.

12. Let us now examine the impugned order dated 30.11.2012 regarding benchmarks for tariff determination for biomass and bagasse based co-generation plants to be commissioned in 2012-13 to 2016-17. The findings of the State Commission relevant to the issues under our consideration are as under:

i) The State Commission fixed the control period of five years, first year of which would be from the date of the impugned order upto 31.3.2013 and the last year would be FY 2016-17. However, the cost of biomass fuel has to be reviewed at the end of third year of the control period i.e. FY 2014-15 in order to take care of any price volatility in the biomass fuel market to capture the market price correctly.

ii) The tariff period is 13 years from the date of commissioning of the plant.

iii) The cost of fuel was fixed at Rs. 1583 per MT for bagasse based cogeneration plants for FY 2012-13, and an escalation at the rate of 5% was allowed for the subsequent years.

iv) In the impugned order the existing plants are those plants which were commissioned from FY 2007-08 to FY 2011-12 i.e. prior to or during the control period of the previous tariff order. The new plants are those which are commissioned on or after 30.11.2012 till FY 2016-17.

v) The variable cost for existing and the new plants was determined differently. For the existing plants the variable cost as determined in the previous review order dated 29.6.2010 for FY 2011-12 i.e. Rs. 2.21 per unit was escalated by 5% per annum to determine the variable cost for the FYs 2012-13 to 2023-24.

vi) The variable cost of new biomass plants is determined considering fuel cost of Rs. 1583/MT for FY 2012-13 with escalation of 5% per annum.

13. We find that in the impugned order the fuel cost and consequently the variable cost of the existing and the new plants has been determined differently. No reason has been given by the State Commission for the same in the impugned order.

14. We find that the variable cost for the existing plants including the plant of the appellant has been determined in the impugned order considering the base fuel cost of Rs. 1200 per MT for FY 2010-11 with escalation of 5% per annum i.e. as determined in the review order dated 29.6.2010. Thus, the fuel cost considered from FY 2012-13 is Rs. 1323 per MT. On the other hand, the fuel cost considered for the new

plants for FY 2012-13 is Rs. 1583/MT. This is not correct. Firstly, the earlier order dated 29.6.2010 determined the variable cost for only two years i.e. FY 2010-11 and FY 2011-12. Thus, the fuel cost from 2012-13 onwards had to be determined by the State Commission subsequently. Secondly, the fuel cost for the existing and the new plants for the same period has to be the same. When the State Commission has determined price for fuel for bagasse based co-generating stations for FY 2012-13 onwards, the same price has also to be applicable to all bagasse based projects whether existing or new. The existing plants as well as the new plants have the same source for procurement of sugarcane/bagasse and, therefore, same price has to be made applicable to both.

15. The scheme of things as decided by the State Commission in the earlier order dated 29.6.2010

is that while the fixed cost per unit has been determined for a period of 13 years, the variable cost is determined for the control period of 2 or 3 years and has to be re-determined after the control period keeping in view the market price of the fuel. Accordingly, the fuel cost for the existing plants has to be at the same level as determined for the new plants for same period. Therefore, the fuel cost for the existing bagasse based cogeneration plants has also to be taken as Rs. 1583 per MT for FY 2012-13 with escalation of 5% per annum and the variable cost of the existing plants has to be re-determined taking into account the specific fuel consumption and auxiliary consumption norms as decided in the review order dated 29.6.2010. As there is no change in the auxiliary consumption and specific fuel consumption norms as decided in the impugned order and in the

order dated 29.6.2010, the variable cost as determined in the impugned order for the new bagasse cogeneration projects will also be applicable to the existing projects.

16. Accordingly, this issue is decided in favour of the appellant.

17. **The second issue is regarding Return on Equity.**

18. The State Commission had allowed Return on Equity of 17.5% (pre-tax) in the order dated 21.5.2009. The issue of increase in Return on Equity was raised in the review petition. In the review order dated 29.6.2010 the State Commission did not agree to revise the Return on Equity and decided to retain ROE at the same level. These orders have not been challenged and have attained finality. The State Commission also determined the fixed cost per unit for 13 years in the order dated

29.6.2010 for the projects commissioned upto FY 2011-12. In the impugned order the State Commission has determined the norms of tariff for the plants to be commissioned in the new control period i.e. 2012-13 to 2016-17. The capital cost has also been determined for the projects to be commissioned during the control period of 2012-17. We find that the State Commission in order to attract investment adopted Return on Equity of 20% (pre-tax) for initial 10 years and 24% per annum (pre-tax) for subsequent period. If the State Commission has allowed a higher ROE to the projects to be commissioned in the subsequent control period of 2012-17, that could not be a sufficient reason to reopen the ROE and fixed cost of the existing projects for which fixed cost was determined by the State Commission for a period of 13 years in the earlier tariff order for the previous control

period, which was accepted by the appellant and not challenged. The existing projects could not ask for parity of capital cost and other operational parameters and financial norms with the new projects which are commissioned subsequently in a different time frame where capital cost and technology, etc. would be different.

19. Accordingly, we reject the contention of the appellant regarding ROE.

20. The third issue is regarding date of implementation of the impugned order.

21. The State Commission has made the impugned order effective from the date of the order i.e. 30.11.2012. According to the appellant, it should be made applicable from 1.4.2012.

22. In the review order dated 29.6.2010 it was clearly stated that till such time new tariff is introduced, tariff

determined in the order dated 29.6.2010 would continue.

23. We do not find any illegality or infirmity committed by the State Commission while allowing the application of the impugned order prospectively and not retrospectively and is unable to accept the contention of the appellant on this issue.

24. The third issue is accordingly decided against the appellant.

25. **Summary of our findings:**

i) In the order dated 29.6.2010, the variable cost was determined for a period of 2 years i.e. 2010-11 and 2011-12 based on the fuel cost of Rs. 1200/- per MT for FY 2010-11 with escalation of 5% per annum whereas the fixed cost was determined for a period of 13 years for the existing plants and new plants to be commissioned during

2010-11 and 2011-12. The total tariffs i.e. sum of fixed & variable cost was also determined for a period of 2 years i.e. 2010-11 (w.e.f. 29.6.2010) and 2011-12, the variable cost for the plants commissioned upto 2011-12 was to be re-determined keeping in view the market price of fuel for the new control period from 2012-13 onwards. In the impugned order dated 30.11.2012, the State Commission has wrongly determined variable cost for the existing plants commissioned upto 2011-12 and new plants commissioned in the new control period based on different fuel price. The State Commission should have determined the variable cost for the existing as well as new plants based on the fuel price of Rs. 1583/MT for FY 2012-13 with escalation of 5% per annum as the fuel price for all the plants whether existing or

new has to be the same. Accordingly, the variable cost of the existing plants has to be re-determined considering fuel price of Rs. 1583/MT for FY 2012-13 with escalation of 5% per annum and specific fuel consumption and auxiliary consumption as determined in the review order dated 29.6.2010. As the auxiliary consumption and specific fuel consumption as determined in the order dated 29.6.2010 and the impugned order are the same, the variable cost as applicable to the new plants as determined in the impugned order will also be applicable to the existing plants.

ii) There is no merit in the contention of the appellant for a higher Return on Equity for the existing plants based on the financial norms decided by the State Commission for the new control period of 2012-17 as the fixed cost of

existing plants was decided by the State Commission's order dated 29.6.2010 which was not challenged and has become final.

iii) We do not find any illegality or infirmity in allowing the application of the impugned order prospectively and not retrospectively.

27. The appeal is allowed in part as indicated above and the impugned order is set aside to that extent only. No order as to costs.

28. Pronounced in the open court on this **3rd day of February, 2014.**

**(Justice Surendra Kumar)
Judicial Member**

**(Rakesh Nath)
Technical Member**

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REPORTABLE/~~NON-REPORTABLE~~
Vs