

## BiofuelCircle Market Insights

March 2024

# From the Editor's Desk: Are briquettes fair priced today?

Over the last six months, we have seen prices of briquettes come done by ₹0.40 per Kcal-kg, down 17% from the peak of August 2023. Prices for delivery in forward months continue to happen at ₹1.6 – 1.8 levels. As compared to coal, the price of briquettes has fallen below coal (in energy terms) for the first time since June 2023. This begets the question: would biomass briquette prices go even lower? Or will we see a rebound as we approach summer? Is the current price of briquettes, a fair price?

Read on for our analysis of the market.



#### **Past Trends: Briquette Prices**

This chart shows the pan-India trend on the BiofuelCircle platform, for weighted average delivered prices of Biomass Briquettes, converted to Rs per Kcal-kg over the past months, along with the availability & demand from our subscribers. Weighted average is calculated using quantity sought/ offered/ deals done, averaged over a month.

Buy/Bid prices (orange line) are expectations of Buyers (delivered basis). Sell/ Offer prices (yellow line) are based on responses and sales published by Sellers (again delivered basis). And finally, the Deal prices (purple line) are for deals concluded after platform-based negotiations between Buyers & Sellers. Demand (blue bars) is the total Buy quantity for the month, and Supply (green bars) is the total quantity Offered by Sellers for that month.

In February 2024, the average deal prices continued to slide lower to ₹ 1.93 per Kcal-kg, the lowest in the last two years since Jan 2022. The weighted average price last month, for Premium briquettes (GCV> 3800, Ash < 8%) was more or less stable at ₹ 2.13 per Kcal-kg. Superior briquettes (GCV ~ 3400 to 3800, Ash ~ 8 to 12%) saw an uptick to ₹ 1.98 but Standard briquettes (GCV< 3400, Ash

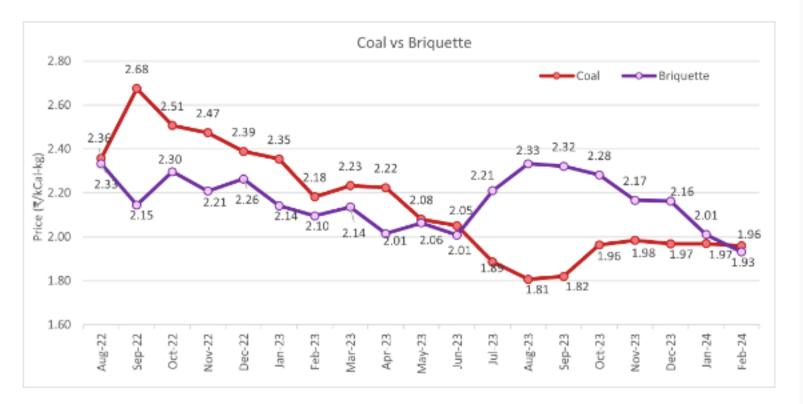
>12%) which formed the largest volume transacted on the platform fell further to ₹ 1.83.

Buyers for same-month delivery in February sought even lower prices, down to ₹1.85 from ₹1.96 last month. While Sellers chased the price expectations of Buyers, they did not drop their prices as much: only down ₹0.05 to ₹2.04 per Kcal-kg.

The availability (supply) of briquettes and their demand in February 2024 was almost identical to January, with demand still below supply for the fourth month in a row

#### **Price Comparison**

The chart below compares the weighted average delivered prices of Biomass Briquettes to those of imported coal (GCV 3400 GAR). We call the difference between these prices the 'spread'. Coal prices in this chart (maroon line) are sourced from market publications, for Indonesian-origin coal (3400 GAR), imported at Kandla and delivered on average 300 km inland. Briquette prices (purple line) are based on deals done on the platform. Both are converted to GCV basis, for meaningful comparison.



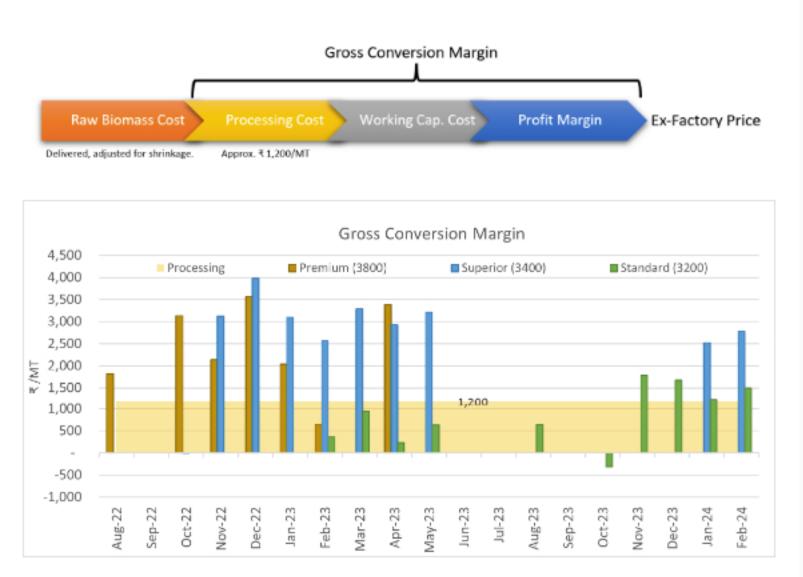
The spread between Coal and Biomass Briquette (measured on a ₹ per kCalkg) reverted to its typical pattern as seen between mid-2022 to mid-2023: In price per GCV terms briquettes are now marginally cheaper than imported coal. For buyers with dual-fired boilers (coal & biomass), briquettes are an attractive proposition over fossil fuel coal. Coal prices have uncannily stayed in a tight range between ₹1.96 and ₹1.98 per kCal-kg since October 2023.

The inventory backlog at ports on the west coast of India has still not cleared. International coal prices in February also remained soft. Both factors have contributed to imported coal prices remaining at almost the same level this month, as compared to January.

### Past Trends: Gross Conversion Margin

This chart shows the pan-India trend on the BiofuelCircle platform, of the difference between the weighted average ex-factory price of Briquettes and the weighted average delivered prices of Raw Biomass, converted to Rs per Kcal-kg over the past months. Weighted average is calculated using quantity sought/ offered/ deals done, averaged over a month. This chart excludes commodities such as paddy straw, which are directly used for conversion to biogas or bioethanol.

In order to assess the inherent value of briquettes, we have compared the delivered price of raw biomass, with the ex-factory price of briquettes. Raw biomass prices have also been adjusted for expected shrinkage across various inputs. The difference represents the GCM (Gross Conversion Margin), which includes the processor's cost of conversion, inventory holding cost, and profit margin. We have tried to benchmark this against an average processing cost of ₹ 1,200/MT (approx. ₹0.34 per kCal-kg) as represented by the shaded region in the graph below. On top of this will be the cost of working capital, which varies from processor to processor.



The GCM for Standard briquettes (made from inputs such as cotton stalk, mustard husk/stalk, corn cob, poultry waste, etc.) is the lowest amongst all three grades. While the absolute price of Standard briquettes now is lower than what it was at the same time last year, the margin is relatively better. If the cost of working capital is added on top of the average cost of processing, this leaves hardly any profit margin (at times negative margin) for Standard briquettes.

Superior briquettes (manufactured using soyabean husk, sugarcane waste, etc.) are seen to offer steady conversion margins throughout the year, with reasonable allowance for the cost of working capital.

The Premium group includes groundnut shells, saw dust, etc. that go into making Premium grade briquettes. While most of these raw materials do not suffer from seasonal variations, the GCM for this group also tends to vary across the months.

#### Forward Months: Briquette Prices

The prices (for Buys/ Bids, Sells/ Offers & Deals), as well as demand & supply quantities in the chart below, are for delivery of biomass briquettes in the months to come.



For March delivery, prices are almost the same (~ ₹0.04 per Kcal-kg lower as compared to last month), but the weighted average price of deals done in February, for delivery in April 2024 is lower by ₹0.17 to ₹1.61.

Seller expectations are in ₹ 2.17 to 2.33 range for the months beyond April, with Buyer expectations rising to ₹ 2.00 or higher, to catch up with the Sellers. Deals have happened at Buyer levels or even lower. Demand is lower than Supply even in the forward months, with both Buyers & Sellers preferring to conclude deals at the most two to three months ahead.

#### In Conclusion

The last six months have seen a steady and low price of imported coal as compared to previous years. Increased availability of raw biomass that typically follows the Kharif harvest has reflected in a reversal of the high prices of briquettes that were seen in the monsoon months. The prices also currently don't show any increase for the next couple of months. Comparing the average GCM in the recent path to cost of processing and cost of capital indicates a pressure on margins.

Considering all of these factors (raw biomass availability, current state of conversion margins, and international coal), we believe **that the current price** of briquettes is fair.

If you are a consumer of Briquettes/ Pellets, this is a good time to lock in purchases for the summer months. Log in to the platform and <u>click here</u> to find Sellers near you using our new Green Navigator. If your cost of capital allows advance purchases for the monsoon months, <u>Contact your Support</u> representative to know how BiofuelCircle can help you prepare a stocking plan in the coming months.

If you are a Briquette/ Pellet manufacturer, the Green Navigator can also help you locate customers nearby using the <u>Find Buyer feature here</u>. BiofuelCircle is facilitating the collection of raw biomass through multiple Biomass Banks in Maharashtra & Gujarat. <u>Reach out to your Support</u> <u>representative</u> to know how you can secure your raw material supplies at a fair price.

#### Let's discuss ! Reply back if you are interested.



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