



# Pet Coke Case Study

## Case:

Use of high sulphur pet coke as an alternative fuel in place of heavy fuel oil to reduce cost of production of white cement.

Fuel cost constitutes 60 per cent of the variable cost and is the critical cost driver in the manufacturing of White Cement. Heavy fuel oil containing sulphur < 1.5 per cent had been the conventional fuel for manufacturing of white cement. The Birla White plant was also using heavy fuel oil (RFO, LSHS and FO) similar to other white cement plants of India.

The continuous hike in fuel oil prices in domestic as well as international markets plunged Birla White in deep concerns for retaining its profitability and existence by using only heavy fuel oil.

Birla White's team started discussing the problem and considered alternative cost effective sources of fuels which did not have adverse effect on quality, as Birla White is sold at a premium price due to its quality.

## Options:

- High sulphur pet coke
- Low sulphur pet coke
- Fuel coal

## Solution:

After successful trials of high sulphur pet coke for six months, the company had an option of installing a grinding unit inside the plant by which the company could additionally save INR 80 million per annum.

### There were two alternatives:

1. Install a new grinding machine (Vertical Roller Mill) costing INR 80 million, which was offered by various reputed suppliers.
2. Purchase an old machine available at a very low price, and modify classifier and hydraulic system costing INR 40 million with risk of performance parameters, especially the output quality.

## Conclusion:

Birla White could not take the risk of a big investment for the project as quality, availability and suitability of high sulphur pet coke for white cement manufacturing was doubtful. Birla White's team was aware that if it's used, it could add to significant savings to the tune of Rs.100 million/year, which is approximately 25 per cent of net profit of the company. This would help the company sustain its competitive edge in the domestic as well as the global market. Birla White has targeted to replace 80 per cent of total heavy fuel oils. But the challenge before the team was to overcome the above said constraints and bottlenecks and to use high sulphur pet coke successfully, within a short period of 3-4 months to start with and to achieve the targets within a year's time.