

MarketMastor Case Study – Negotiating a better price for thermal coals

A coal marketer is negotiating with a power plant that a price for a particular coal, say Coal A, deserves a higher price than other coals, especially when the calorific value and ash content are similar. MarketMastor can help create the arguments which can be used in negotiating higher prices. The process works by initially identifying coals within the coal quality database which should achieve a similar price to Coal A by using a typical coal pricing index. Consequently it would be expected that these competitor coals with have a similar calorific value and ash content, and should therefore have a similar price according to traditional coal pricing indices. This process is automatically undertaken in MarketMastor, where 10 coals with a coal price closest to Coal A are identified for use in subsequent investigations. Figure 1 shows a comparison of as-received calorific value with ash content. Note sulfur content and moisture content are also taken in account with the pricing calculation. The blue triangles in Figure 1 have a similar price depending on their calorific value, moisture, sulfur content and ash content.

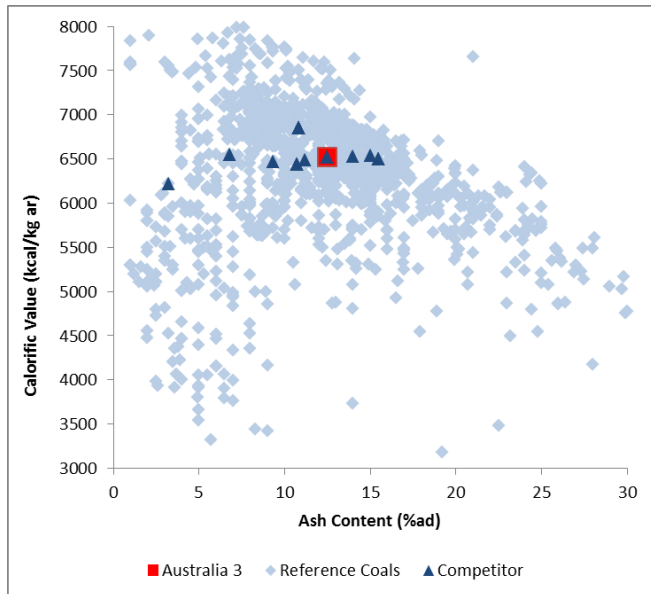


Figure 1: Comparison of as received calorific value and ash content for test coal, competitor coal and reference coals.

MarketMastor features an evaluation chart where plant performance for the competitor coals can be compared with Coal A. A comparison of the competitor coals with Coal A (red line) is provided in Figure 2 for 4 plant performance parameters. The figure shows

- Ash deposition potential is on the low side although all the coals are not expected to cause ash deposition issues
- SO₂ emissions are less than half of the higher emitting coals, a significant advantage for plants with strict emissions regulations,
- Mill power consumption is better than all of the competing coals expected for one, and
- Most importantly, expected cost per MWh is lowest for Coal A compared with the competitor cost.

The analysis concludes that Coal A has positive qualities above coals that should receive a similar price in the market. The generation cost using Coal A is less than the competitors.

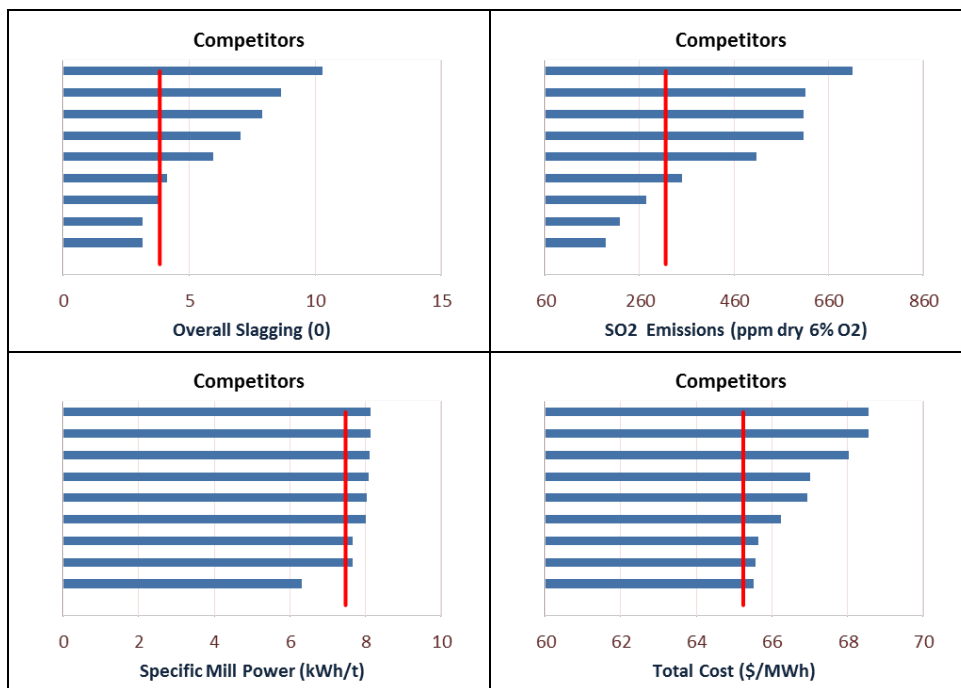


Figure 2: Competitor analysis for Coal A for Overall Slagging propensity, SO₂ emissions, specific mill power and total coal (generation)

This provides price negotiators with arguments for a higher price than others in the marketplace. For a 500MW plant, the annual savings in using Coal A over the competitor coals is \$1million per year.

A question raised within this case study is the fact that Coal A offers higher value to a power plant (lower generating cost) than the other competing coals. Consequently is a higher value coal being supplied to the power plant than should be, and has the product specifications for Coal A been optimised correctly?