

Effect of Blending on Operational Performance and Generation Costs of an Indian Power Plant



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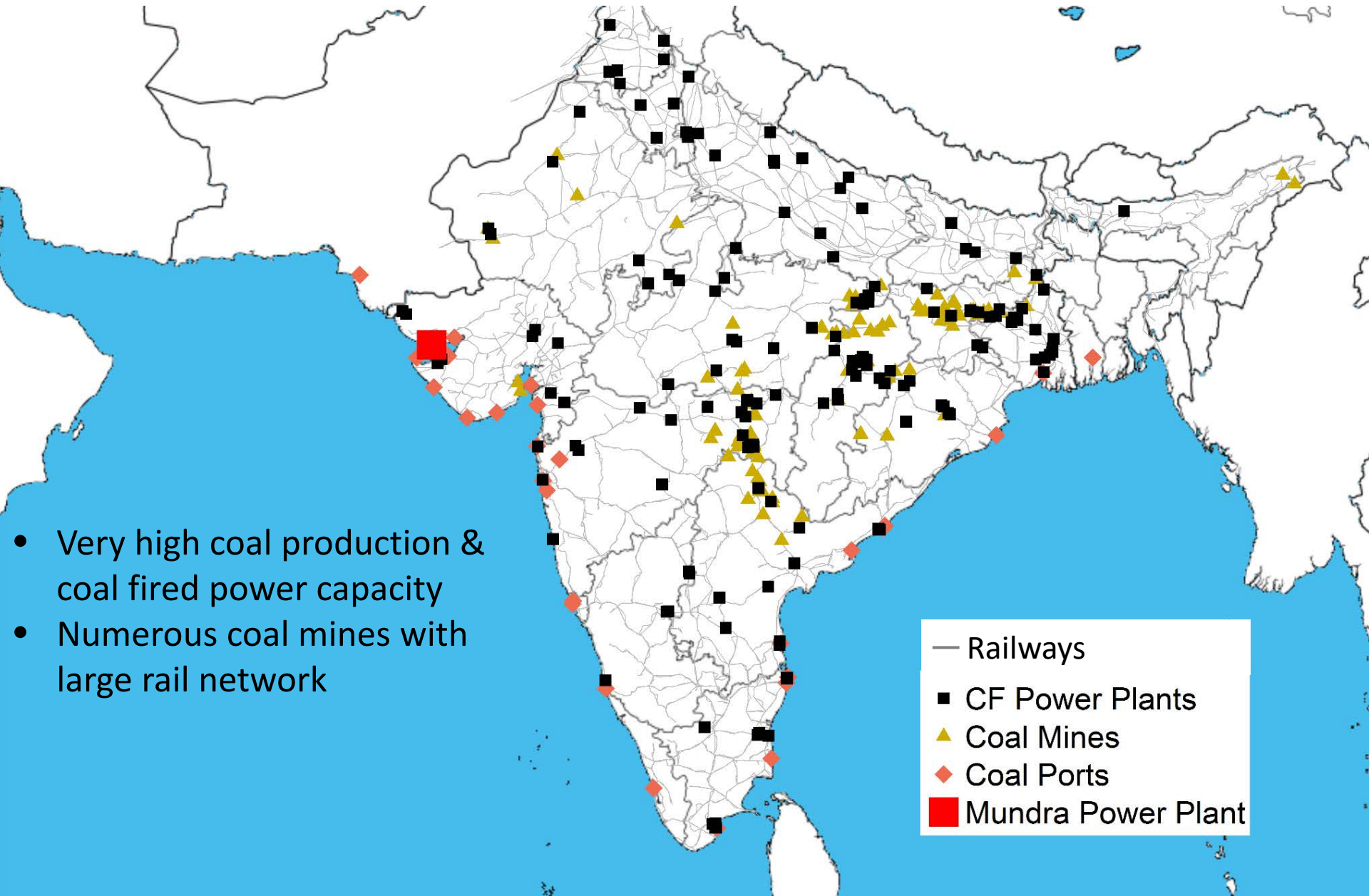
India

Background – Moatize Mine

- Vale's Moatize mine produces a hard coking coal product and a thermal coal product.
- Mine is ramping up to an output of 22mt of coal per year.
- Coal Quality
 - Calorific Value – 6050 kcal/kg GAR
 - Moisture - 5% AR
 - Ash – 24% AR
 - Volatile Matter – 20 % AD
 - HGI – 72
 - IDT AFT – 1480 °C (red)



India – Coal Fired Power Plants



- Very high coal production & coal fired power capacity
- Numerous coal mines with large rail network

Mundra Power Plant - Coal Supply Options

Mundra Power Plant

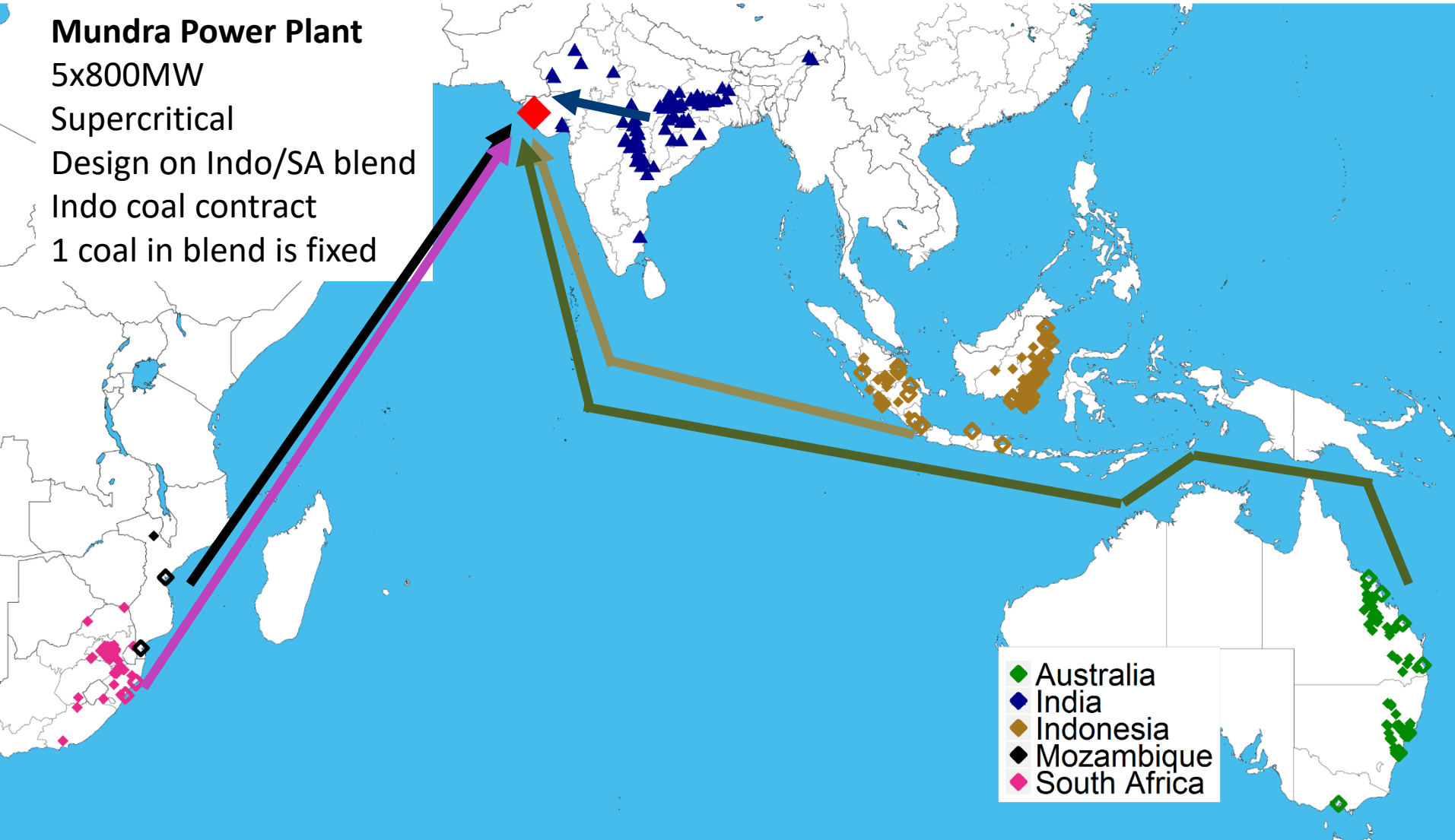
5x800MW

Supercritical

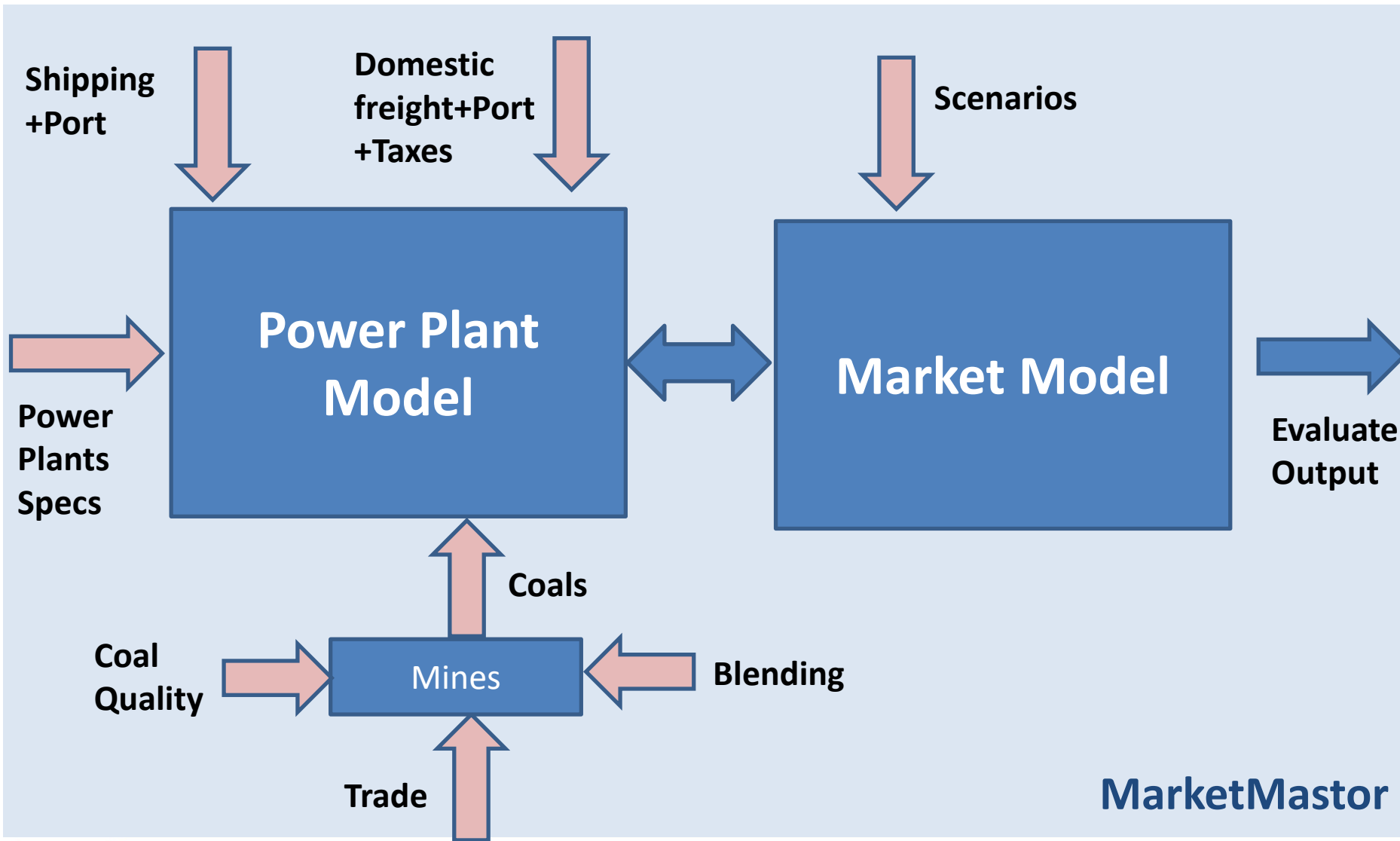
Design on Indo/SA blend

Indo coal contract

1 coal in blend is fixed



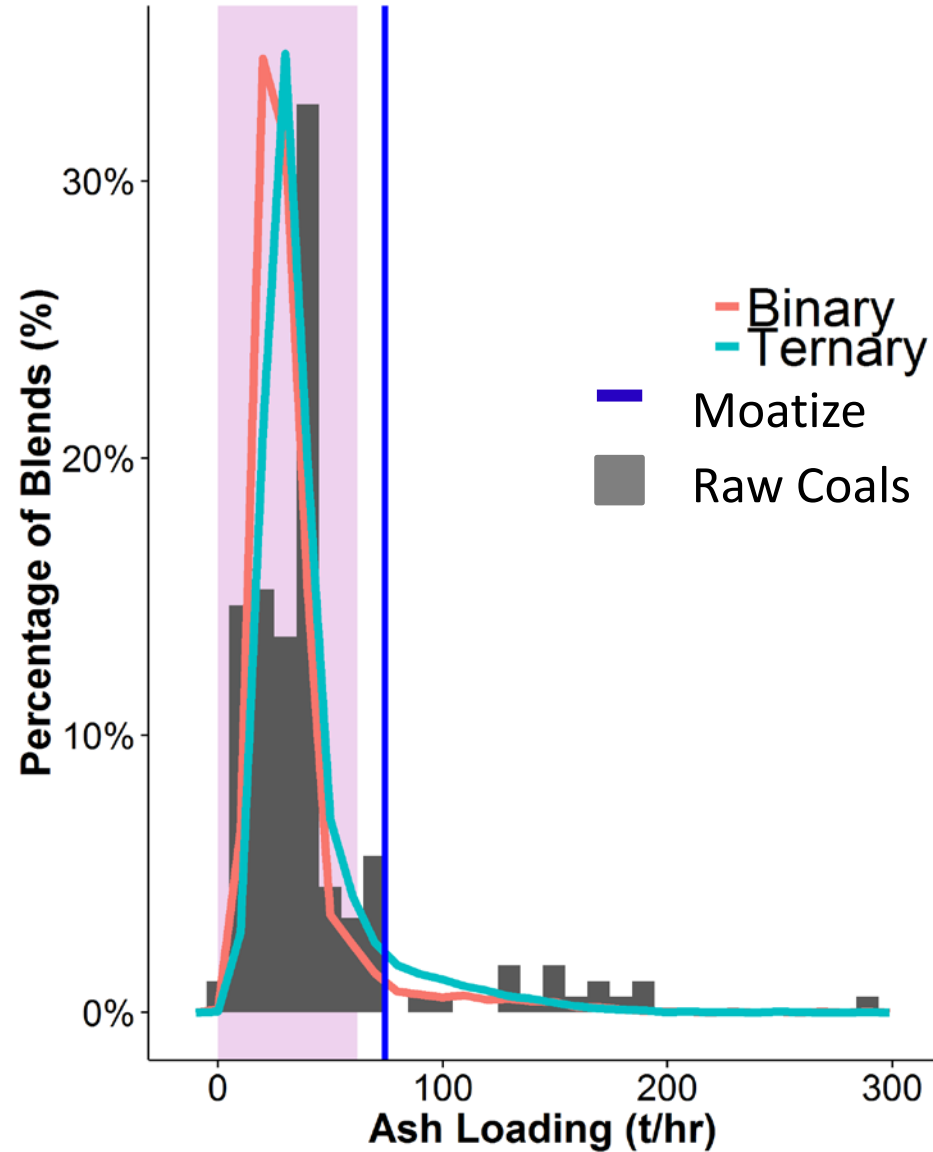
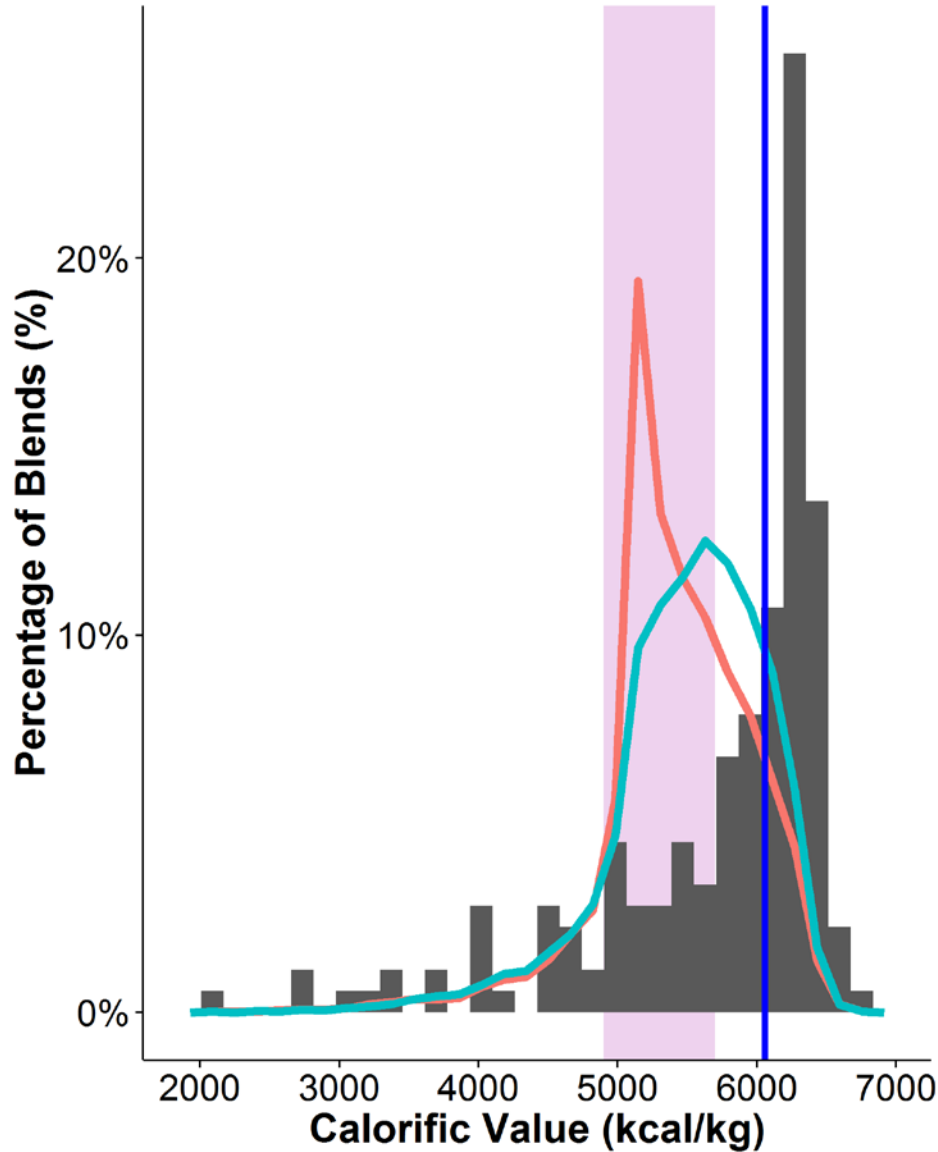
Blend Modelling – MarketMastor™



MarketMastor



Plant Limitations – Studied coals



POWER PLANT PERSPECTIVE

- Power plant confirmed a close match between the actual power plant performance and the desktop analysis.
- Agreed with the technical recommendation of using Moatize coal in 20% blend where possible.
- Ash deposition potential of currently used coal reduces by 20% when using Moatize coal.
- Blend usage has resulted in higher boiler efficiency, improved mill performance, reduction in mill power, and reduction in power for draft system (reduction in auxiliary power use).
- Mundra power plant are continuing to use Moatize coal

FOR MORE...

- For the rest of the presentation please contact Anthony Williams on 0427 910 049 or via email at anthony.williams@abmylec.com.au

