



# CO FIRING 9 JAPAN WORKSHOP 25-27 FEB 2020

Duncan Barker  
Mott MacDonald

There are many examples globally of existing coal plants that have been retrofitted to co-fire with white wood pellets. Full conversion of coal plants to fire 100% white wood pellets have also been undertaken at several plants around the globe. Co-firing with black pellets (or torrefied pellets) is much less well known and there are very few examples. This paper will report the key findings from a study to evaluate the costs (CAPEX) and performance implications (output, heat rate and emissions) of co-firing with black pellets at co-firing ratios of 5%, 15%, 20% and 40% at an existing coal plant in East Asia with a capacity of around 2500 MW. The technical and commercial challenges of using black pellets at this scale will be described together with recommendations regarding what owners of coal plants which are considering this option will need to address if they wish to take this option forward successfully for their own plants.

