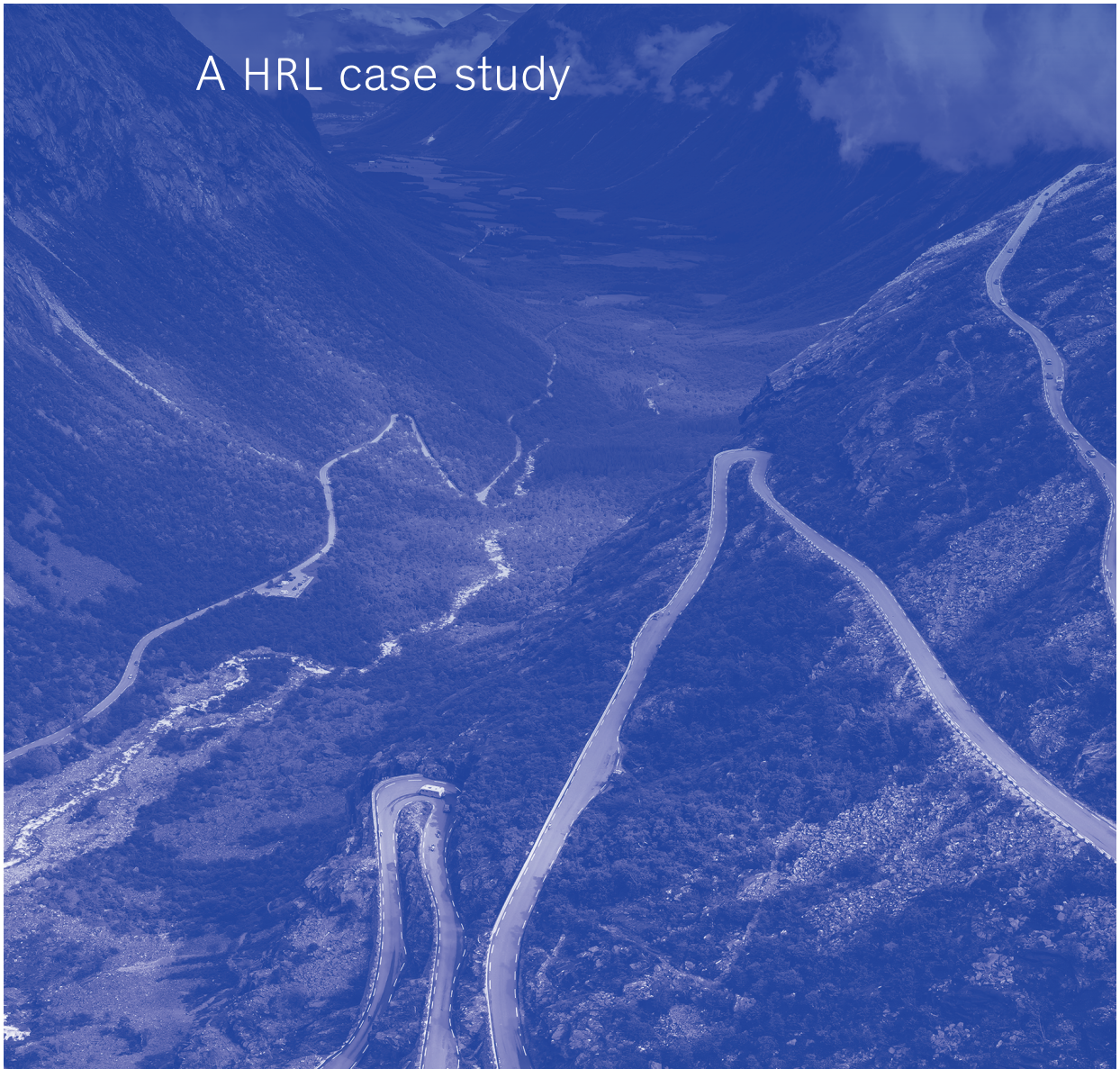


hrl:

# Dry bottom ash handling

A HRL case study



expertise in action



# HRL improves safety and reduces water consumption at Muja Power Station

Synergy has experienced a significant reduction to the operating costs of the Muja Power Station.

## Challenge

Synergy is a major provider of electricity to the state of Western Australia, and the owner of the Muja Power Station.

The existing wet handling systems at Muja were requiring constant maintenance, repair, and using significant quantities of water to quench hot ash from the boiler. Safety of the operation was also a concern, as hot ash can be explosive when it comes in contact with cold water.

## Solution

Synergy engaged HRL to design, construct, import, install and commission three Dry Bottom Ash Handling Systems (DBAHS) on Units 5, 7, and 8. These DBAHS (researched, designed, and developed in conjunction with a Chinese supplier), crush, remove, and air cool hot ash without the need to water quench resulting in a dry product that can be transported via truck, and potentially used in road base.

The DBAHS was fully integrated into the existing computer operating system of the power plant, and has also made it much easier to handle the removal of large ash deposits crushing the ash to the size of a football which is easily removed to maintain continued operation.

## Results

By engaging HRL Synergy has experienced a significant reduction to the operating costs of the Muja Power Station, with substantial reductions to ongoing maintenance, repair, and water usage at the site. Removing the risk of exploding ash in the existing wet hopper has also significantly reduced the safety risk involved in the ash removal process. Finally, the solution has reduced the frequency of forced outages, with the ability to easily remove ash blockages in the boiler. HRL delivered the project on time, on budget, and to the satisfaction of Synergy meeting and exceeding all safety measures.

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