



ST Barbara Limited Leonora, Western Australia

ETS Designed and Installed modified exhaust systems to four existing gas generators, utilizing Miratech silencers, to capture enough waste heat for the creation of 5.6MW of additional mine cooling capacity via absorption chillers.

In concert with Gordon Brothers Industries, ETS designed and installed the necessary infrastructure to capture the waste heat from existing Third Party owned and operated gas fired generators converting it into 5.6MW of chilled water for use in the mine's underground mine cooling system. The installation has been operating for close to one year and had an initial payback estimate of just over two years. This has now been revised to 18months and from there will save the mine \$2.5M per annum in operation costs and reduce its emissions by 5000 Tonnes of CO2 per year.

This unique solution to underground mine cooling meant that the traditional and much more expensive methods of expanding mine cooling capacity were not needed

It comprises two 2.7 MW Thermax Absorption Chillers, new cooling water pipework, modified exhaust systems for four of the existing gas engines with new Miratech silencers to divert heat into the absorption Chillers and significant civil infrastructure to house and support the new equipment. Construction commenced in September 2014 and was completed in late January 2015.

It was completed on time and on budget with no interruption to mine operations.

Key Facts

Project Value \$5.5M

18 Month Payback

\$2.7M p/a cost savings

5000 Tonnes p/a CO2 saved.