

Mining Water and Pumping Optimisation



Benefit:
R 20-R 30M
Energy Savings per Year



Cost:
R 20M



Payback:
<1 Year

Legacy water and pumping systems in deep gold and platinum mines are highly complex, old, leaky, expensive and inefficient. Servicing 1Li/s of water usage costs approximately 50kW for every 1,000m required pumping, not taking into account cooling energy.

Pressure and flow control demand side intervention applications are applied to focussed particular sub-systems. System-wide approaches allow for a reduction in water usage, thereby reducing the required pumping energy.



For this project:

BBEnergy implemented various specific technologies and behavioural interventions including dam closure valves, dam level monitoring and control, pump load-shift, alternative pump-cooling, cooling car water re-use via CCVs, pressure profiling control station valves (PPCVs), amongst others.

Completed in 2017.