Press release: Significant savings thanks to new pump technology

The investment has been made in both new pump controls and new pumps at its mine water treatment schemes and pumping stations in an effort to reduce the amount of money the organisation spends on its electricity bill.

Contracts Service Manager at the Coal Authority, Chris Crowe, said that it currently spends in the region of £2.4 million each year. He said: “Energy suppliers are also changing the way the way their tariffs are charged, which also has an impact on the cost to us. So, anything we can do to offset that cost by making savings can only be a benefit.

“Together with our partners J N Bentley, Severn Trent Services and the supply chain, we have now developed a standard specification for motor control centres – MCC’s – which are fundamental to how we move pumped water around our mine water treatment schemes and subsidence pumping stations. They control the pumps and the way we maintain the water levels at our 48 pumping stations.

“Last year we conducted a review of the motor control centres and pumping assets and developed a programme for the replacement and introduction of the new standard motor control centres.

“The capital spend to date on new pumps and panels alone is in the region of £1,700,000 but we expect this will result in significant energy savings over a year. In addition, the new standard MCC’s not only bring many financial benefits in cost certainty within the supply chain, but also faster product design and operational benefits thanks to their improved resilience and standard layouts.

“We incorporated the innovative ABB variable speed drives with their intelligent control. This enabled us to do away with complex programmable logic controllers and other systems that were neither functioning nor providing adequate control.”

The new panels have the ability to simplify the pumping processes and motor control while ensuring effortless energy efficiency. A variable speed drive, which controls the output, can reduce energy consumption by as much as 60%. For a 132 kilowatt motor on continuous duty, this can mean a saving of over £27,000 per year. This is because the variable speed drive reduces the amount of energy drawn by the motor.