## CASE STUDY Solar installation

The use of solar power on our mine water treatment schemes is part of our aim to significantly reduce the operational cost of treatment schemes through innovation, research and development. To date we've saved £79,000 and 311 tonnes of carbon.

Of our 75 treatment schemes, 45 of them across the country need some form of pumping to manage rising mine water levels. The consequence of this is an annual electricity cost in excess of £3 million. Because of the cost and how this affects our footprint, we've started to install solar panels on some of our sites. So far we've 8 solar installations including the latest one at a treatment scheme in Northumberland which went live on 1 March this year.

We installed 2,112 solar panels at this scheme which have the capacity to produce 550,000 kwh of electricity a year. This is the largest installation to date and is performing above its expected modelling capacity.

The installation took 4 months to build and will make significant inroads into the £63,000 a year electricity cost of keeping the pumps at this scheme working 24 hours per day as a result of high water levels as well as tidal pressures at the coastal location.

As well as reducing electricity costs by  $\pm 22,000$  each year the scheme will provide additional income of  $\pm 26,000$  a year for generating and exporting excess power to the grid.

