



## Aluminium smelter generator replacement

### Challenge

The client was a hydroelectric power plant operator in the north of the UK. 3sun Group were tasked with the de-commissioning of the five existing hydroelectric turbines and generators at the aluminium smelter, and the installation of five new turbines & generators. The work was split into three phases over three years to allow the smelter to maintain production.



### Solution

3sun Group assisted with the following work scopes:

- Safe removal of existing generators
- Coordination of all lifting operations
- Offloading and checking of new components
- Foundation assembly
- Installation of stator and rotor
- Rotor alignment
- Installation of cooling and lubricating systems
- Installation of fire protection systems
- Final assembly, balancing, and commissioning
- Power and reliability runs



### Results

The project was completed on schedule, without any major safety incidents, and on budget. The teams were mobilised/de-mobilised according to project needs and in such a way as not to disrupt ongoing asset generation.

### Maximising Our Value

3sun Group was a local supplier who also had the benefit of extensive previous experience of providing similar services to the same client on several previous projects. We maintained a high degree of flexibility as to when teams were mobilised/de-mobilised according to the different phases of this project. This helped considerably with accommodation and travel costs. The teams had a mix of various competencies tailored to the project requirements which further enhanced efficiency.