



Case Study - River Dart Country Park

*Large scale micro-hydro
installation*

Privately funded/developed

Case Study:

Site: Ashburton, Devon
Turbine: Archimedes screw
Power: 50kW
Head: 4.5m

Western Renewable Energy (WRE) was brought in by the site owner to carry out the feasibility work and design. WRE negotiated the consent to allow the machine to be installed pending a large fish testing programme.

WRE were first consulted in 2005, and linked up with control firm GP Electronics and local civil outfit Castleford Engineering. Major issues to be worked around included:

- The first large grid connected screw turbine in the UK, and hence no Environment Agency familiarity with the technology
- Sensitive Salmonid river
- Site within the Dartmoor National Park
- Additionally the site was very public and in an attractive park area.





Site access was good, with easy control of the water in the leat

Excavation was carried out with 7t machinery from local firm, and bedrock was pecked away as required.

Material excavated was disposed of on site and reused





Structure was poured in sections to reduce shuttering hire cost, delivered via conveyors to minimise handling required





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Tailrace excavation was carried out last and the system commissioned soon after

