

Clapton Mill

Clapton, Crewkerne, Somerset



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|---------------------------------|----------------|
| Site | Watermill |
| Catchment | River Axe |
| System | Grid Connected |
| Commission Date | Dec 06 |
| Turbine type | Crossflow |
| Supplier | Valley Hydro |
| Design output kW | 5.8 |
| Projected annual energy capture | 30MWh |
| Mean flow | 0.480 |
| Rated design flow | 0.40 |
| Gross Head | 3.0 |

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Original mill on left with waterwheel arch. Turbine house on right (new stone work) and outflow tunnel.



This scheme is on an existing working mill site with a live water supply so little work was required to the original waterways. An abstraction licence was required even though grandfather rights exist to run the mill. The installation employs a 600mm dia by 65m long penstock to lessen the environmental impact on the mill pond and the technical installation is contained in a purpose built turbine house, mostly underground, to minimise the impact on the grade 2* listed mill. These two aspects increased the project cost considerably. All the building and installation work was carried out using local labour with Hydrogeneration Ltd employed as consultants. Currently (Oct 07), all surplus energy is purchased by EDF.

Since installation, the site owner has identified the key elements of good crossflow turbine and control box design. He now manufactures premium quality crossflow turbines, grid connect and control boxes to order.

Turbine installation

