



hydro project

TOLL HOUSE GUILDFORD

Fact Sheet

Why: Climate change has increased because of human activities such as the demand for power in homes and at work. Globally, we rely heavily on fossil fuels such as coal, oil and gas, which release greenhouse gases such as carbon dioxide into the atmosphere. This causes changes to our climate such as wetter, shorter winters and longer, drier summers. It is very important that we find ways of producing energy that does not harm the environment and the *Toll House Hydro Project in Guildford* is one example of this. It is a renewable energy technology.

Where: The Toll House, where the hydro turbine is located, forms part of the Grade II Listed Town Mills complex owned by Guildford Borough Council. In 1897 The Toll House was built and following the removal of the original water wheels housed a pair of turbines to pump water to the town reservoir on Pewley Down. In 1930 the twin turbines were replaced with a single turbine, which ran until 1952. In 1990, the turbine was removed and donated to the National Trust, and it is now exhibited at Dapdune Wharf. Some fifty years later a new turbine has been installed in the Toll House. The turbine will generate hydro-electricity by harnessing the energy of the water in an exciting and environmentally friendly way, helping to reduce the impact on our environment.

Who: Guildford Borough Council have worked in partnership with the Yvonne Arnaud Theatre. The mechanical and electrical components were supplied and installed by Derwent Hydro Developments of Derby. The contractors, Geoffrey Osborne Ltd, undertook the civil and building works. The Guildford Environmental Forum, Jose Marques Ltd, and the Energy Centre for Sustainable Communities have also given their support.

Cost: The completed scheme is estimated at £340,000. This was offset by a grant from the Government's *Clear Skies* programme of £60,000 and £25,000 from EDF Energy's Green Fund. The anticipated annual income generated from the turbine is £25,000. The turbine will generate 260,000 kilowatt hours, which is enough to supply 50 houses with power per year. For additional information, please contact the climate change team on hydro@guildford.gov.uk or 01483 444518.



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