



TEDDINGTON & HAM HYDRO PLANNING APPLICATION PLANNING STATEMENT

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1 INTRODUCTION

This is the Planning Statement included in a suite of documents prepared in support of a Planning Application for the construction of a turbine to generate renewable energy on Teddington Weir.

It is not very often that the opportunity to install such a structure is made available. We believe that this project has the potential to realise the renewable energy goals, not only of the Council, but also of many interested residents. The project is potentially transformational in nature. It could act as a showcase for community energy, inspire pride, and provide interest and delight to walkers along the Thames path and to other individuals and bodies.



2 THE PLANNING CONTEXT

Richmond Council gives a high priority to 'green' and sustainable development. The Core Strategy (adopted by the Council in April 2009) makes reference to a number of criteria for the promotion and enhancement of the Borough through green and sustainable development. We believe that the promotion of a hydro power scheme on the Thames exactly meets the criteria set out in this document and set out the following examples in support of our case:

- The Core Strategy sets out a vision for the Community Plan that would like to see the Borough; 'inclusive, green, safe and responsive'.
- Priority 2 of the plan is 'Being the greenest borough in London'.
- The objectives of the Local Plan Agreement include the statement; 'we want to continue to build on the sustainability of our communities and to protect our environment for the future'.
- Within the Core Strategy, section on Local Development Framework Vision again includes a reference to a sustainable future; 'The Borough's responsibility to global sustainability'. In particular, the aspiration is described by 'energy use minimised and renewable energy maximised'.
- Item 4.4.9 Climate Change notes: 'Climate change is the most important factor facing the World..... The Borough aims to become a leader in the development of sustainable lifestyles. Opportunities for de-centralised energy production will be considered'.
- Item 6.1.2 highlights the priority to play a role in minimising climate change, measures to minimise energy use and encourage the use of renewable energy.
- Item 8.1.2.2 States: 'All new buildings to include the use of renewable energy sources'.

We believe that the application to install our scheme on the Thames at Teddington Weir aligns with the Council's priorities with regard to sustainability, renewable energy and climate change. In this context, we urge the Council to give a favourable consideration to this Application.



3 SPECIFIC PLANNING ISSUES

A previous application for this development, submitted some two years ago, is now withdrawn and this application with required minor improvements is submitted in its place.

Discussions between the Council, Ham Hydro community interest group (CIC), Teddington & Ham Hydro Cooperative limited, The Lensbury and various river users has resulted in revisions and amendments to the original application. The designs have also evolved to reflect the concept with greater maturity and integrity than that previously submitted. But the fundamental principles and the rationale for the project have not changed and these points are explored in this and other, related documents.

The design has been prepared to the level suitable for a Detailed Town Planning Application. Consultant Engineers and designers, as well as our own team, have contributed to this process. From this, the Environmental impact, particularly with regard to noise, is reported. Pre-application consultation has been undertaken with the Environment Agency and the design has been modified to now include a fish and eel pass.

Full environmental impact assessment not required

Richmond Council informed us that a Full Environmental Impact assessment is not required.

"I can confirm that the local planning authority is of the view that the proposal does not fall within Schedule 1 of the Regulation and as such an EIA is not mandatory"

Jon Freer, Assistant Director of Environment, 23rd February, 2011

Document: 14 Environmental Assessment Screening Opinion

However, we have closely consulted with the Environment Agency on a number of issues to ensure our scheme will not be detrimental in any way to the environment. As part of this we have written a Water Framework Directive Assessment, which is not a requirement for this planning application, but is available from our website for interested parties, though we should note it runs to over 100 pages. This work and consultation has led the to specific assurance from the Environment Agency that it is supportive of our scheme. We attach their letter dated 3rd July 2013 in the appendices, and here is a relevant quote from that letter:

"As stated in our previous letter dated 24 February 2012, we are supportive of renewable energy proposals. We are generally supportive of this scheme which offers community benefits, subject to the planning conditions provided in the appendices concerning the following environmental issues;

- o Fish and biodiversity*
- o Flood risk management*
- o Groundwater protection"*

Mr Steve Swain

Major Projects Officer, The Environment Agency, 3rd July, 2013

Document: 26 EA planning advice to LBRA 7 July 2013

Development Control Manager, Richmond Council, Robert Angus, agrees:

"...on advice from the Environment Agency, I consider suitable conditions can safeguard these important matters..."

Robert Angus, Development Control Manager, 15th November 2013



Noise impact

Our noise report contained later in this document shows that there will be limited impact on local residents, businesses or river users.

The Council has assured us that, while there is residual concern, this area has been adequately provided for by setting operating conditions.

"There is a significant concern over noise, but having assessed this in some detail with external consultants I also consider this may be covered by condition."

Robert Angus, Development Control Manager, 15th November 2013

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Detailed design

Detailed design will be undertaken following approval at planning stage and it may be that design refinements will be carried out. Whilst we are confident that the design meets all known requirements and constraints, it may be that further detailed analysis will require design revisions to be undertaken. We will liaise with the Planning and other Council bodies during this process to make sure that our design is fully compliant with planning conditions before commencement of the construction phase.





4 OUR REASONS FOR UNDERTAKING THE PROJECT

The team believes that we, as a community, should be taking local action to make a contribution towards combating climate change and generating decentralised renewable energy. The flow over Teddington Weir allows for the possibility of generating clean, renewable energy.

The Environment Agency is the landlord of Teddington Weir and opened up the possibility of developing hydro power on it in April 2010. The team formed a non-profit organisation to bid for the exclusive rights to develop a project there. We were successful and have been working ever since to develop a workable design.

Once built, the scheme will produce between 1.5-1.9GWh of electricity. This power will be exported into the grid, rather than directly power local homes, but in order to help understand the amount of power the scheme will produce, this is enough to power roughly 600 homes at the upper end, or around 80% of the energy requirement of Richmond Borough's Schools and reduce carbon emission by nearly 1,000 tonnes per year.

Community Owner – Aligned with government objectives

The scheme will be community owned, with community investors benefiting from the financial benefits of energy generation through variable interest payments on their investments. This aligns with the policy objective of both the previous and current government to incentivise community-owned renewable energy. Indeed, the Department of Energy & Climate Change recently published its Community Energy Strategy which promotes and incentivises individuals and communities to generate and export renewable energy through the system of feed-in tariffs, for which our scheme is eligible.

In addition to this, 10% of profits will be gifted to the Teddington & Ham Hydro Foundation, which will seed other renewable and fuel poverty alleviating projects locally.

As a result, we think that our project will not only provide a compelling social return, it will also provide an attractive financial return.

A strong payback

The forecast revenue from the project (a mixture of FIT payments and sale of electricity) will, after associated costs, pay back the capital costs within 10-11 years. The lifetime of the asset is expected to be 40-50 year or more, so the directors consider this to be a good, long term investment.

How much will you need to raise to build the scheme?

The cost to build the scheme is forecast to be £3.7m. However, we are budgeting for a 10% contingency and so will be raising £4.2M.

What are the impacts on fish and the fragile river ecosystem? How will they be mitigated?

We have commissioned reports assessing the potential areas of concern in the weir pool and its immediate surroundings which show that the operation of the scheme under EA-imposed operating conditions will not have a detrimental impact on the local environment.

A flood risk assessment has been carried out by our consultants which shows that there will be a "negligible" impact on flood risk.

What about fish passage?

The Archimedian turbine allows fish to pass through it without being damaged. Please refer to <http://www.fishtek.co.uk/hydropowerresearch.html> for further details.



The scheme also includes a new fish pass, 3.6m in diameter, to replace the two existing 1m-wide ones. This new fish pass will include multiple gradients to enable the migration of a variety of species. This will be a significant improvement on the current situation for fish migration. In addition, we will install an eel pass.





5 COMPETENCE

The organisation responsible for submitting this Planning Application comprises a team of Directors, volunteers and advisors of Teddington & Ham Hydro Cooperative Limited. This is a team with enthusiasm for the project and who bring a broad range of specialities.

Stephen Jarvis is our Managing Director, Financial Director of Carbon Clear, a leading Carbon consultancy, Energy Efficiency and Carbon offset provider. Prior to that a fund manager at a leading hedge fund.

Chas Warlow is the Deputy Managing Director. He has a background in running successful not-for-profit organisations in the environmental sector and the arts, both in the UK and abroad.

Paul Parker is our Technical Director; He co-runs Heather-Parker Projects Ltd which is developing hydro power at other sites on the Thames. Paul brings his technical and commercial experience to the project.

Debbie Kingston, Company Secretary, has 17 years business experience in the oil industry.

Jono Adams, Communication Director, an Associate Director at Anthesis Consulting Group, a global sustainability consultancy.

Jean Loveland - Jean has been hugely active in the local community for many years and is now a local councillor representing the Ham, Petersham and Richmond Riverside ward.

James Heather: is also the Managing Director of HP-Projects Ltd. and has experience of developing a hydro power project on an EA owned weir.

Georgie Debenham: has an MSc in Renewable Energy, Enterprise and Management (distinction). She has led a team to implementing an anaerobic digestion knowledge transfer project in rural Africa.

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Teddington & Ham Hydro is also a major beneficiary of the Pure Leapfrog programme, whereby schemes such as ours can access high quality professional advice free of charge.

Our legal advice is provided by an expert team at Norton Rose Fulbright LLP, while we have received accounting support from Grant Thornton.

Teddington & Ham Hydro is collaborating on this proposal with Brendan Barrow, of BSpoke eWaterpower, who is acting as lead design consultant. Brendan has verified our design specifications and yield calculations and has played a central role in project planning.

Our noise assessment has been carried out by the highly skilled team at Peter Brett Associates. We have engaged Turnpenny Horsfield Associates to undertake our environmental modelling analysis. Sharenergy Co-op have provided advice on the development of this share offer document.





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7. Site Plan Existing (DWG-TW-ES1)
8. Site Plan Proposed (DWG-TW-EP1, DWG-TW-P1, DWG-TW-PS1)
9. Existing Cross Sections (DWG-TW-ES3)
10. Proposed Cross Section (DWG-TW-ES3)
11. Existing Elevations (DWG-TW-ES2)
12. Proposed elevations (DWG-TW-P2, DWG-TW-P3, DWG-TW-PS2)
13. Visual Impact
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17. Risk Assessment
18. Flood Risk Assessment
19. Noise Impact Assessment
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Stephen Jarvis, Managing Director – Teddington and Ham Hydro Cooperative Limited



London, 1st September, 2014



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