

# East Herts Council Report

## Executive

**Date of meeting:** 6<sup>th</sup> July 2021

**Report by:** Cllr Geoffrey Williamson

**Report title:** Proposal to cease the Hertford Hydro project

**Ward(s) affected:** Hertford wards

## Summary

The Hertford Hydro project was approved in 2010 to design and build a hydro scheme at Castle Weir, Hertford. Over the last decade the project team has worked through an iterative design process to meet a range of Environment Agency recommendations and requirements. This design process has resulted in a number of changes that have reduced the potential outputs from the Hydro whilst increasing the cost of the design and delivery, this means that the potential payback period for the project has increased substantially. During this time the Council has pursued a number of alternative sustainability schemes as part of its commitment to put 'Sustainability at the heart of everything we do'. The Environment Agency (EA) has objected to all planning applications put forward to date for the Hydro scheme and there is an ongoing material risk that the EA are not able to support an application. In light of the increased costs and reduced benefits that the scheme would now deliver, the ongoing risk that the EA will not support a planning application for the scheme and the many alternative sustainability

measures that the Council has and is pursuing, it is recommended that the Council cease the delivery of the Hydro project.

## **RECOMMENDATIONS FOR EXECUTIVE**

- a) The Hertford Hydro project should be ceased in light of increasing costs and reduced benefits associated with delivery and the alternative sustainability measures being introduced by the Council.

### **1.0 Background**

1.1 The Hydro project was approved by the Executive at its meeting of 1<sup>st</sup> December 2010 when it was agreed that:

- (A) the comments from the meeting of the Environment Scrutiny Committee on 16 November 2010, be received;
- (B) the business case for the design and build of a micro hydro scheme at Castle Weir, Hertford, set out within the report be agreed in principle; and
- (C) the decision to proceed with the tender for the design and build of a micro hydro power scheme at Castle Weir, Hertford, be delegated to the Director of Customer and Community Services, in consultation with the Executive Member for Community Safety and Protection.

### **2.0 Reason(s)**

2.1 This paper recommends that Executive consider ceasing the Hydro project in light of a number of significant risks attached to the project which include:

- The reduced benefits / outputs from the Hydro as a result of changes made to date to meet EA requirements
- The increased period of payback as a result of the reduced energy outputs and increasing costs over the years meaning payback could now exceed 50 years
- Considerable sustainability benefits being achieved as part of the Hertford Theatre Growth and Legacy project
- Considerable investment in alternative sustainability initiatives
- The ongoing risk that the Environment Agency will not support the planning application

2.2 Table A below demonstrates that the level of financial rewards originally envisaged from the Hertford Hydro scheme have dropped considerably since the scheme's inception in 2010 and review in 2018. This is the result of:

- government feed in tariffs for electricity generation no longer being available – this reduces accrued income by c£8,000 a year
- the redesign required (to date) by the Environment Agency resulting in the power that can be generated dropping by at least a third, with a corresponding drop in the percentage of Hertford Theatre's energy that can be provided

The current capital budget for the scheme is £211,000 of which £35,000 has been spent to date on survey work and the like.

In 2018, members were informed that the overall capital requirement could rise to £252,359.

While further detailed financial modelling has not been carried, it is anticipated that overall costs could increase by at least further 10% to £277,595.

The budget for Hertford Hydro is in the approved but not yet committed part of the Capital Programme. This means that that the Minimum Revenue Provision and interest costs from borrowing are not included in the revenue budget and will have an effect of increasing the payback period even further.

**Table A: Comparison of 2010, 2018 and 2021 modelling**

	Modelled figures		
	2010	2018	2021
Electricity that would be generated per year	85,000 kWh	85,000 kWh	42,000 – 58,000 kWh
Percentage of Hertford Theatre’s electricity consumption that would be met by the hydro scheme	40%	40%	20% - 28% of current Theatre requirement <i>6% - 9% of redeveloped Theatre requirement</i>
Estimated total capital cost	£211,000	Estimated max of £252,359	Estimated max of £277,595
Payback period (value of electricity plus value of any feed in tariff minus maintenance costs / total capital costs)	7.4 years	11.31 years	50.5 years

2.3 In 2010, the payback period was anticipated to be 7.4 years. By 2018, this had extended to 11.3 years. With the value of electricity generated per year now estimated to be in the region of c£6,500 and maintenance costs being c£1,000, the payback period is likely to be c50.5 years, based on a total capital cost of £277,595. Of note, the income would be less than the revenue costs of

(a) servicing the debt to finance the scheme; and

(b) making the necessary provision to set aside resources to repay the debt itself (the minimum revenue provision).

Of course, a lower capital cost than modelled plus a higher level of electricity would reduce the payback period as would a small level of income from exporting to the grid (this would be likely to only be a few £100s a year). A shorter payback could therefore be c40 years but this would be based on the most optimistic assumptions for all inputs and so it would not be prudent to rely on this figure.

2.4 Whilst the potential benefits of the Hydro scheme have been significantly reduced as a result of a number of changes to the design of the scheme that the Environment Agency have required, considerable sustainability benefits are being achieved as part of the Hertford Theatre Growth and Legacy project, which will see an anticipated 58% reduction in carbon emissions on completion of the new building in 2023, without the Hydro.

2.5 Considerable investment has also been made in alternative sustainability initiatives, since the commencement of the Hydro

scheme in 2010, which will yield better returns, including in excess of £500k on Hertford based projects, including Hertford Theatre and Hartham Leisure Centre, installation of e-vehicle chargers, the e-car club and energy efficiency upgrades to the council's office buildings. The Council's new electricity supply from 1st April 2021 will be from 100% renewable sources.

- 2.6 There is still a considerable risk that the Environment Agency will not support a full planning application for the Hertford Hydro scheme.

The council made a full planning application in 2012. This was not supported by the Environment Agency despite considerable engagement in the lead-up to submitting the application. While the council's Development Management Committee is not obliged to act on the EA's advice, it is to be expected that the lack of EA support will result in the application not being granted.

The council then made an outline planning application in 2019. This has not been determined while the council continues to work with the EA on the issues they raised as a result of this latter planning application.

In December 2020, the council formally wrote to the EA in an attempt to gauge how they would respond to a full planning application now being made. The council asked the EA if they *'could confirm whether you are minded to support a planning application for the Hertford Hydro if a planning application was formally submitted by the council in March 2021'*. Council's letter attached at Appendix A.

While stating they are supportive and despite considerable ongoing work with the agency, the EA responded to say:

- *'there are still matters that will need satisfactory resolution before an application can be determined'* (to the EA's satisfaction)
- *'different flow requirements will need to be safeguarded either through the scheme design and/or by local monitoring arrangements'*
- *'the potential changes to the local flood risk are always important parts of our response to a planning application. In November 2019 we did object to a previous application due to the lack of an appropriate Flood Risk Assessment. It is recommended to avoid a similar outcome separate discussions are commenced to progress this important planning aspect'*.

EA's letter attached at Appendix A.

It is felt that continued querying of matters which have been and continue to be subject to much discussion, data exchange and significant scheme redesign indicate that a material risk that the EA will not support a full planning application still remains

### **3.0 Risks**

- 3.1 There is a risk that delay in delivery of the Hydro scheme (or ceasing it altogether) adversely impacts on achieving the council's carbon neutrality target. However, at an estimated saving of 14,000kg CO<sub>2</sub> equivalent, the Hydro project represents less than 1% of the council's overall carbon offset requirement to achieve the carbon neutrality target. The council moved to an electricity provider and tariff from 1<sup>st</sup> April 2021 based on 100% renewable sources.
- 3.2 There is a potential reputational risk arising from ceasing the project, which has been a part of the East Herts project portfolio for over a decade and would contribute to the Council's objective to put 'sustainability at the heart' of

everything it does. However the Executive first approved the Hydro scheme in December 2010 and there is increasing reputational risk that the scheme has yet to be delivered.

## **4.0 Implications/Consultations**

### **Community Safety**

NA

### **Data Protection**

NA

### **Equalities**

NA

### **Environmental Sustainability**

Yes

The Hydro represents a source of renewable power produced by the council which would allow the council to draw on this as part of its trajectory to carbon neutrality by 2030. That said, at 14,000kg CO<sub>2</sub> equivalent, this represents less than 1% of the council's overall carbon offset requirement to achieve the carbon neutrality target .

### **Financial**

The project would cost in the region of £277,595 to be delivered.

The budget for Hertford Hydro is in the approved but not yet committed part of the Capital Programme. This means that the Minimum Revenue Provision and interest costs from borrowing are not included in the revenue budget. Schemes Approved but not yet Committed are those schemes where past experience has indicated there are traditionally underspends or there are specific issues with a scheme proceeding that is outside the control of the Council.



Approval by Council provides protection for the budgeted scheme for the year(s) indicated. Schemes are committed by the Head of Strategic Finance in consultation with the Executive Member for Financial Sustainability. Virements are forbidden from these budgets without the authority of Council to prevent these budgets being committed to cover overspends or for immediate transfer to new schemes that do not have Council approval.

### **Health and Safety**

NA

### **Human Resources**

NA

### **Human Rights**

NA

### **Legal**

NA

### **Specific Wards**

NO

## **5.0 Background papers, appendices and other relevant material**

Appendix A – EHDC letter to Environment Agency

Appendix B – Environment Agency response to EHDC letter

### **Contact Member**

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