

#39

COMPLETE

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Page 2: Part A: Your Details

Q1 Mr
Title

Q2
Name
First Name Frederick
Surname Cole

Q3 Respondent skipped this question
Organisation (if responding on behalf of an organisation)

Q4
If you wish your comments to be acknowledged and to be kept informed of progress, please provide your email or postal address below:

[REDACTED]
[REDACTED]
[REDACTED]

Q5 Respondent skipped this question
If you are an agent or responding on behalf of another party, please give the name/company/organisation you are representing:

Page 3: Part B: Your Comments

Q6

Please use this comment box to make any general comments you may have

As a resident in Andover I have walked most of the local area.

I see many sites which could be used to generate electricity.

The stream by the college could probably produce sufficient energy to make the college itself selfsufficient with a possibility of some extra income!

The use of the waterways around Andover could possibly be the Base of an 'Andover Power Company'.

This would encourage maintenance of the local waterways with the possible benefits of of an improved habitat for marine and wildlife.

Turbines may be adapted to suit their locality.

They may be a practical eysores turbine?

They may be designed in a manner in which to compliment their surroundings.

Rustic Waterwheels and similar designs which could be used in marketing and tourism.

Modern Turbines which can produce 3 MegaWatts power at 20 RPM are available!

Q7

Comment 1 Document Reference:

What is the history of hydropower on Exmoor?

Q8

Comment 1:

On Exmoor, the most successful electric hydro scheme to date was built in 1983 in the West Lyn Gorge at Lynmouth. This has a power output of 300 kilowatts, and each year generates 1.5 million kilowatt-hours of energy for the grid. The visitor centre there includes much of interest, including working models.

Recently, the West Lyn scheme was granted a licence to increase the energy generated.

Q9

Comment 2 Document Reference:

Bringing power to Peter Tavy

Q10

Comment 2:

For centuries the Colly Brook provided power for Peter Tavy through the mill pond and leats to the waterwheels of three mills.

The river is still naturally well suited as a source for hydropower, with the potential to generate up to 100kW, enough energy to supply about 100 homes.

With some limited experience of hydro power generation, the Peter Tavy Community Hydropower (PTCH) committee set about learning mo

Q11

Comment 3 Document Reference:

Project Name: Hydro Mills Project – Tiverton Weir

Q12

Comment 3:

Author: Chris Shears

Version: 3.0 Date: 27/06/20

Business Case

Background

The Hydro Mills Project has been developing since the end of 2015, and has been supported along the way by our own members, [REDACTED] MP, Western Power Distribution, South West Water, the University of Exeter, numerous riparian owners, the National Trust, and others. The project has also engaged with key organisations including Tiverton Town Council, the local angler's association and rivers trust, and the Environment Agency (EA), along with local hydro-electric specialist company, Hydromatch Ltd. It has also been presented at Westminster to the then Energy Minister, [REDACTED] MP.

Benefits

The project will generate a saving in energy to the local authority, which currently spends just under £50,000 on energy per annum. The hydro generation scheme could provide as much as £63,000 worth of electricity per annum, and most of this could offset the energy bill at Phoenix House and would be complimentary to our existing solar PV array. We would still need to keep our grid connection because there will be times when neither system is providing enough to fully cover the energy use of the building, but it is highly likely that we would have a negligible grid requirement. Given the upward trajectory of fuel prices, it is highly likely that over time the financial value of this saving would increase. We can also explore the opportunity to supply energy to other sites or to put other community focused measures in place which could use excess energy generated through the hydro scheme.

If Mid Devon District Council were to take forward a scheme at Tiverton Weir, it could act as a catalyst for drawing down funding to bring forward further schemes, and would help to deliver a range of other benefits and opportunities as part of a wider project:

Q13

Comment 4 Document Reference:

Derwent Hydro have been generating hydroelectric power since 1990

Q14

Comment 4:

https://www.derwent-hydro.co.uk/our_sites/

At Derwent Hydro we have been generating hydroelectric power since 1990 and we now operate 12 schemes for ourselves with more planned. Our commissioned sites are at:

MILFORD

This is a refurbished old system on the River Derwent in Derbyshire. The turbine dates from the 1930s but is still capable of producing over 150kW. The system has been in almost constant operation since we brought it back to life over 25 years ago and yet most local people don't seem to realise it is there. This is a testament to our responsible operational practices and to hydropower in general as an extremely benign and discreet form of electricity production.

BELPER

The 350kW scheme at Belper is integrated into the imposing mill buildings at the heart of the town, which are now let commercially. Like the scheme at Milford, this is part of the UNESCO Derwent Valley Mills World Heritage Site. The weir that provides head for the turbines also supports a boating pond adjoining the Borough Council's river gardens. This is another great example of how with hydropower, clean electricity generation can blend seamlessly into business premises, historic sites and community amenity areas.

BURTON UPON TRENT

The flour mills at Burton on the River Trent have been converted into residential apartments. Adjoining one of the apartments Derwent Hydro's water power system continues to run quietly, generating renewable electricity and off-setting the power demands of the residents.

BORROWASH

The scheme at Borrowash includes a turbine built in-house by Derwent Hydro. The innovative siphonic design enables the electrical elements to be kept well above water level, which is essential in this location where flooding is a regular problem. The site has been operating for many years and maintains a healthy population of coarse fish, to the enjoyment of the adjacent angling club.

Q15

Respondent skipped this question

Comment 5 Document Reference:

Q16

Comment 5:

<https://www.waterpowermagazine.com/features/featurea-sense-of-community>

Low-cost hydro

Ollie Paish of IT Power and Jon Needle of Derwent Hydroelectric Power, made a presentation on the development of low-cost turbines for small, low-head sites. Although high-head sites offer the greatest economic potential, they are the least available in the UK. The Domesday Book mentioned 10,000 water mills and over the succeeding 900 years many more sites, possibly as many as 30,000 were developed. Many of them could be brought back into use, each generating 5kW-100kW and making a significant contribution to the Government's target for generation from renewable sources. Few of the abundant, low-head sites have been developed, mainly because of costs. In partnership with GP Electronics, IT Power and Derwent Hydro had spent two years researching and developing a low-cost solution that could see the future development of many more of these sites.

Q17

Respondent skipped this question

Comment 6 Document Reference:

Q18 Respondent skipped this question

Comment 6:

Q19 Respondent skipped this question

Comment 7 Document Reference:

Q20 Respondent skipped this question

Comment 7:

Q21 Respondent skipped this question

Comment 8 Document Reference:

Q22 Respondent skipped this question

Comment 8:

Q23 Respondent skipped this question

Comment 9 Document Reference:

Q24 Respondent skipped this question

Comment 9:

Q25 Respondent skipped this question

Comment 10 Document Reference:

Q26 Respondent skipped this question

Comment 10:

Q27 No

Would you like to make further comments? If you select yes, you will be taken to a new page to allow you to make further comments. If you select no, you will be taken to a page to upload documents and confirm you would like to submit your response.

Page 13: Part C: Further Documentation

Q216 Respondent skipped this question

If you would like to upload any documentation to support your response, please do so here.

Q217

Respondent skipped this question

Tick here to confirm you'd like to submit your response
