

Questions and Answers

This is one of the sections that will appear in the Prospectus.

The Society's website, documents page, <http://www.abingdonhydro.org.uk/documentation/pdfs/>, has some of the source documents for the answers below, in particular the Rules of the Society.

Has a 'community share offer' been tried before?

Yes, it is not yet common but it is becoming an established way of raising finance, especially for energy projects. By having a legal basis that encourages wide membership and provides a benefit for the community, financial regulation is simplified. A successful local share offer was Oxford North Community Renewables which, in 2011, raised £150,000 in four weeks to finance the installation of a solar panel array at the Cherwell School. Another was Osney Lock Hydro, which in 2014 raised £500,000 in five weeks to finance the installation of a 50kW hydro power generator next to Osney Lock. At the time of printing, the Low Carbon Hub is running a £1.5 million share offer.

Who owns the land?

The site belongs to the Vale of White Horse District Council, and we expect to receive a 99 year lease on the land. The Heads of Terms have been agreed and the legal process has begun.

When will building work take place?

The civil engineering is planned to take place in the spring / summer 2015. The generator will be installed following that, with electricity generation expected to start by the end of 2015.

What is the lifespan of the hydro scheme?

With a 99 year lease on the land, the concrete foundations will be built to last. The screw within the casing has a 25 to 40 year lifespan. Other items such as bearings are replaceable, and long term maintenance is included in the budget.

Why have we chosen an Archimedean screw?

This technology is efficient and robust, and is acceptable to the Environment Agency for its fish-friendliness. It has been used for pumping

water for over 2,000 years. The hydro scheme uses the technology in reverse to generate power from water. Its advantages include:

- high overall efficiency, of up to 77%, remaining relatively high down to low river flows.
- Fish-friendly, robust, simple machinery and control systems, requiring low maintenance.
- large and visible: impressive to the public.

How much electricity will the hydro scheme generate?

The proposed 100 kW installation is estimated to be capable of generating, on average, 400,000 to 450,000 kWh of electricity a year. The performance figures are based on 13 years of flow and level data for this site, and 70 years of flow data further downstream. They take into account restrictions imposed by the Environment Agency through the Abstraction Licence and local operating agreements.

Can we make it bigger?

The bigger it is, the less time the river will have enough flow to run at full power. So we get a diminishing return. Also, as the flow increases, the downstream level rises, reducing the power. The optimum is probably a bit more than 100 kW, but the banding of the Feed-in Tariff means that above 100 kW the Feed-in Tariff would be reduced.

What are the carbon dioxide emissions and savings?

CO₂ emissions due to the energy used in construction (concrete, steel, transport, etc) will be offset in a few months by clean energy generation. The savings arise because about 120 homes (using Ofgem's figure for typical household consumption of 3,300 kWh per year) will not need to use conventionally produced electricity. 400,000 kWh of gas-fired electricity

generation produces about 200 tonnes of CO2 emissions (Parliamentary Office of Science and Technology postnote No. 268, Oct. 2006). The figure is twice as much for coal-fired generation!

What will be the operating costs once it is up and running?

Operating costs include:

- **Day-to-day checking and maintenance:** this includes tasks such as keeping the inlet grille clear of debris. The cost to the project will be minimised by inviting local volunteers to help, suitably trained and equipped.
- **Regular servicing:** this will be carried out through a contract with the equipment manufacturer. The financial model includes longer term maintenance items such as bearing renewal.
- **Rent:** it will be payable to the District Council for the lease of the land. This is being negotiated and we expect it to be about 2% of the annual income.
- **Business rates:** the rateable valuation is approximately £7500, but whether a Community Benefit Society needs to pay the full rate of about 45% is not yet clear. If we do, the Council may still be able to apply a waiver of part of the charge because of the social objectives of Abingdon Hydro IPS.
- **Insurances:** We are working with our broker to finalise insurance costs for the project.
- **Administration:** The financial model includes an allowance to cover administration and accountancy costs. The directors are unpaid volunteers.
- **Contingency:** Our financial model includes contingency allowances, and we will build up a reserve to cover unexpected events.

Who gets the electricity?

It goes into the grid and is bought under a Power Purchase Agreement. The buyer is expected to be one of the green electricity companies. We hope eventually to be able to sell the electricity to a large local user, or perhaps to

a buyers' club, but unfortunately it is not yet possible with current technology.

What about any potential negative impact from the project?

This scheme has a long lifetime and is very visible, so it is important that it should set a good example, maximising the environmental benefits and minimising possible negative impacts. We have commissioned a number of independent expert assessments concerning biodiversity, flooding, and general viability. This information formed a key part of the rigorous process we have been through in order to be granted planning permission and an Environment Agency licence. You can download the reports from our documents page <http://www.abingdonhydro.org.uk/documentation/pdfs/>

The site incorporates a fish pass to ensure fish can travel freely upriver, and native planting to enhance local biodiversity.

We have reached an agreement with Abingdon's canoe clubs to ensure that they have sufficient white water for their sport when they are making use of the weir pool.

Will it affect the risk of flooding or navigation on the river?

There will be no extra flow down river as a result of the scheme being in place. The lock keeper continues to be the person responsible for maintaining the correct water level. The planning application requires that the structure will present no extra resistance to flood water. The only effect to be expected is that the water flow pattern within the weir pool will change slightly, because some of the water which would have flowed over the weir will be diverted into the Archimedean screws and discharge more slowly, at a different angle. Before granting an Abstraction Licence the Environment Agency consider carefully if there will be any detrimental effects, and any potential effect on flooding.

Why do you need a fish pass?

A central task for the Environment Agency is to improve the quality of UK rivers, and the fish population is one of the indicators. The EA takes advantage of all new hydro schemes to

improve fish migration, so a fish pass is always required. The existing fish pass in the weir will not do, because fish migrating upstream swim toward the water flow. If they sense the outflow from the screws they need to find a fish pass close by. The EA require that the top of the fish pass is a stream with water flowing over gravel, to provide extra spawning ground.

Is my money safe?

Financial security cannot be guaranteed – if it could, the project would not qualify for EIS. Our aim has been to have a sound legal and contractual basis and ensure that enough income can be generated to recover its cost. We have commissioned a due diligence study of the whole project.

Who will manage the project?

The project will be owned by Abingdon Hydro Ltd and managed by the elected board of directors. We expect that construction will be done under a design and build contract, in which the contractor is responsible for the build and performance, and will provide a maintenance contract. The Board will manage the on-going operations. We hope that some members would like to volunteer as guides and for general maintenance.

How do I know the project will be properly managed?

Industrial and Provident Society Rules give a higher degree of accountability than conventional companies. A third of the directors have to step down at the AGM and any member can stand for election. Because the project has a local base and is very public it should receive more scrutiny than most.

How will revenue be spent by Abingdon Hydro once it is fully operational?

The Directors intend that the revenue from the generation, sale and export of electricity by Abingdon Hydro will be used to cover operating costs each year as follows:

- Legal and administrative costs, such as regulatory costs, and insurance.
- Maintenance, repair etc for the generating equipment, including a fund

for unexpected events and less frequent operations such as bearing replacement.

- Payment of the interest and capital if a loan is needed from the Charity Bank.
- After these costs, the remainder will vary each year depending on the river flow, and it will be disbursed at the Directors' discretion: payment of interest on members' shares; and buying back members' shares.
- All that remains is profit, that goes into the Community Fund, as defined in the Society Rules. This is a key part of our vision. See the next question.

How will Abingdon Hydro deliver its community benefit?

It will be the responsibility of the directors to decide, but they are answerable to members for their decisions. The Society Rules say how it can be used, and they are framed to cover a fairly broad range of activities but generally environmental in nature.

After 20 years, the Feed-in Tariff expires, and we intend that the capital will be much reduced, but cannot guarantee that it will all be returned. The income will then be lower but so will the costs. Therefore we expect the community benefit to continue in the long term.

What happens if Abingdon Hydro does not raise enough money?

In the event that this community share issue does not raise the full amount needed to finance the hydro scheme, the Directors will consider and decide on alternative options. If, in the opinion of the Directors, this changes the fundamental nature of the project, you will be given the opportunity to withdraw your application.

What happens if Abingdon Hydro raises enough money before the deadline?

In the event that this community share issue raises the full amount needed to finance the hydro installation before the deadline, the Directors intend to accept investments up to a certain size, to be determined, then to scale back any excess above that. They may also give

priority to investors within a certain distance from Abingdon.

What happens to my shares if I die?

If a Member dies, the repaid value of the shares will normally be added to the estate for probate purposes. However you can nominate a recipient using the application form at the end of this document. The nominee can then receive shares up to a value of £5000, and any remainder goes into the estate. If you have claimed SEIS tax relief, you will be able to avoid Inheritance Tax on the shares if you include them in your will.

Can I hold shares on behalf of children?

Members must be at least 16 years of age. You have the option of holding shares on behalf of someone who is under 16. There is a form for this purpose at the end of this document, but you may prefer to hold the shares yourself if you qualify for SEIS/EIS, so you can get the tax refund. We can transfer them after age 16, and we could arrange to have your repayments paid directly into a children's savings account.

Can organisations hold shares?

An unincorporated association such as a club or society cannot hold shares in its own name, but two or more members can hold them jointly on its behalf. Please use the application form for individual and joint applicants. The Society can be asked to note the name and address of the association. Incorporated bodies can hold shares: a separate application form is provided. There is no limit to the number of shares that can be held by an Industrial and Provident Society.

Does my investment qualify for Seed Enterprise Investment Scheme (SEIS) and Enterprise Investment Scheme (EIS) tax relief?

The directors of Abingdon Hydro have advance assurance from HM Revenue and Customs that

shares in Abingdon Hydro are eligible for tax relief under the SEIS for the first £150,000 of share subscriptions and for EIS thereafter. For more information please see the section above, "Your Investment", the subsection on tax relief.

The availability of any UK tax relief, including EIS and SEIS, depends on the individual circumstances of each investor. No guarantee or other assurance is given that the activities of the Society will be such as to attract or retain any qualifying status for tax purposes and any person who is in doubt as to their tax position should consult their professional taxation adviser.

Can my shares be part of a self-invested personal pension or ISA?

Pensions and taxation are complicated: sorry, for this question you need professional advice.

Can I cash in my shares?

The only way the capital cost can be recovered is by generating electricity, therefore investments should be viewed as a long-term commitment to the project. Your one-off investment is intended to generate not only a long-term financial benefit to yourself, but also a lifetime of environmental and social benefit to the community. Share capital cannot be withdrawn for the first 4 years of investment, and then only at the directors' discretion. If there are others who wish to buy shares, then the directors may choose to arrange a transfer. Please note, the directors may resolve at any time to return excess capital to members in the proportions in which they provided it to the Society.

I am too old to make a 20 year investment!

Please see the answer above, and the questions on what happens if I die and on holding shares for children.

Have you considered buying shares for children, as a Christmas gift that will last?

***Can you afford to be without the money you would pay for these shares?
If not, PLEASE do not buy any shares.***