Peter Tavy Community Hydropower (PTCH)

Feasibility Study: Terms of Reference

Final: 22 April 15

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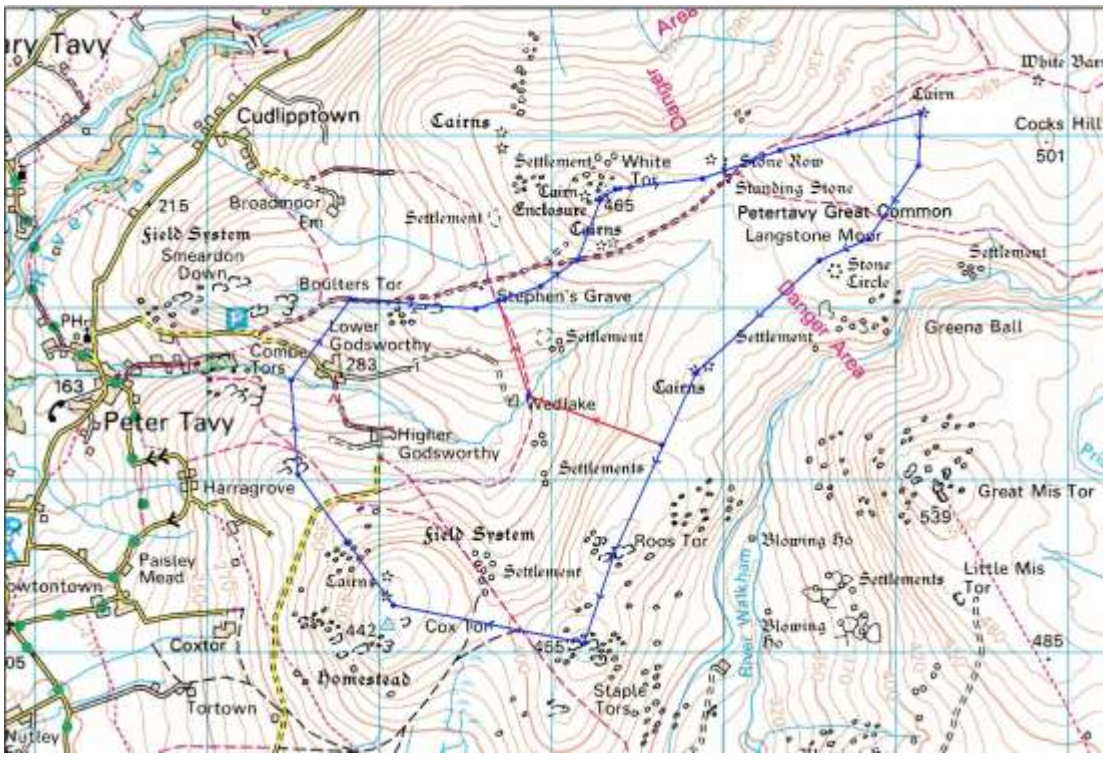
Location Map



Map Ref: Ordnance Survey Explorer OL28: SX775525

1. Introduction

Purpose: These 'Terms of Reference' are for specialist consultants to prepare priced proposals to carry out a feasibility study for PTCH.

PTCH mission is to generate electricity for the benefit of the community through a local hydropower project near Peter Tavy.

PTCH objectives: To raise funds to build a community hydropower scheme, to produce income to cover all costs, a return to community shareholders, and surplus funds to help support Peter Tavy community assets and services.

PTCH status: The community group formed in September 2014 has; developed a constitution, registered as a Community Association, established a bank account, obtained seed funding from Devon CC, attended a series of training courses funded by Devon CC and run by Regen SW, set up a web-site and commenced consultation within the Peter Tavy community. PTCH is establishing a Community Benefit Society (CBS) to act as the developer and operator of the enterprise. PTCH has no paid staff and therefore the enterprise is largely dependent on community volunteer time.

Pre-Feasibility: Informal advice from small hydro specialists who have studied the Colly Brook have indicated that a scheme should be feasible from technical, environmental, planning and grid connection perspectives, and financially viable as a community enterprise. Some villagers advise that an old leat from near Cudlipptown to disused mine working on the Tavy may also be a viable option.

Full Feasibility study funding: PTCH will be seeking grant funding for full feasibility study services (and related activities) from the Rural Communities Energy Fund (RCEF). The RCEF application requirements include three tenders for the study services. These tenders and the tender process must satisfy RCEF requirements.

Rural Community Energy Fund (RCEF) Requirements: RCEF funding applications are administered by WRAP on behalf of the UK Government Department of Environment Food and Rural Affairs (Defra) and Department of Energy and Climate Change (DECC). WRAP issues guidance on their requirements for Feasibility Study Grants and the Feasibility Report in the following documents:

RCEF Stage 1 Feasibility Grants Guidance Document: A reference document which includes requirements on the selection of consultants with appropriate skills and experience to carry out the feasibility work. The Form of Proposal therefore requires consultant(s) CVs with qualifications and previous experience for technical and financial work involved in this study.

RCEF Initial Feasibility Report (IFR) Checklist: A primary reference document as a statement of PTCH requirements for the feasibility study scope and report outputs.
This Checklist is therefore **Attachment 1** to these Terms of Reference.

The following sections provide PTCH specific requirements to inform the preparation and submission of consultants' proposals.

2. PTCH Study Services

In anticipation of a feasible and viable scheme being defined, PTCH wishes to maximise progress on the overall project during this study by acquiring required information for consent applications in parallel with the feasibility work.

PTCH therefore envisage that the feasibility study will be conducted in three steps:

1. **Scoping:** Desktop and site review, identification of potential hydropower options and an pre-feasibility appraisal of which are likely to be feasible and viable, including; hydrographic, topographic, environmental, grid connection and land use and ownership considerations.
   An initial review of these findings with the PTCH committee to agree the scope for detailed appraisal.
   Attend a community meeting to explain the options considered, why some are discarded and others thought to be worth detailed study, and respond to queries.

2. **Feasibility & Viability**: Detailed appraisal of agreed options to determine the most viable scale of energy generation projects and to recommend project delivery approaches. This will include

   - Hydrologic and topographic surveys, and outline design for costing and to explain the scheme and its impacts

   - Performance modelling to ascertain the effective design capacity and annual generation.

   - Financial modelling to indicate commercial viability

   Present draft findings to the PTCH committee for discussion and comment, and agreement of the most viable option to be recommended

   Formalise the report taking account of PTCH comments.

   Presentation of the report to a Peter Tavy community meeting and support in response to questions from RCEF.

3. **Consenting Information**: For the most viable hydro scheme option, the consultants will identify;
   - the issues and develop the information required to apply for consents, including

     - Flood defence consent
     - Abstraction licence
     - Environment Agency environmental consent
     - Dartmoor National Park planning consent
     - Western Power grid connection consent

   - all other stakeholders (eg landowners, commoners, Duchy etc) and the issues that may affect their consent

Subject to a successful feasibility study and the identification of a viable project, PTCH will require future services (to be separately contracted) in support of the project development and delivery. These services may include; detailed project design, authority approval processes, negotiations with stakeholders, share offer prospectus, project specifications for tendering, contract negotiations, and supervision during construction, commissioning, operational and maintenance.

3. Form of Proposal

PTCH requires consultant proposals to include the following information:

- Company details, including company registration, address and contact details, and company details for any sub-consultant to be used on the project
- Evidence of financial standing and professional indemnity insurance cover in excess of £1m
- Declaration of any personal or business relationships with PTCH
- Declaration of any personal or business relationships with hydro project related equipment suppliers and / or construction contractors
- Record of previous projects of a similar nature (minimum 2)
- Experience of working with community group
- Client references for similar services
- Familiarity with the relevant authorities in the Devon / Dartmoor region
- Nominated study leader, with CV
- Other specialists who would work on the project, with CVs - including sub-consultant staff, if applicable, to demonstrate expertise in all study scope aspects
- Support staff, if applicable
- Consultants comments on the PTCH scope of services and any recommended changes, with reasons
- Proposed work methodology, including key tasks and deliverables
- Study performance schedule (including PTCH reviews of drafts)
- Commercial proposal - work hours, work hour charges, other costs, fee total for each work step
- Proposed Form and Terms of Consultancy Agreement

4. Timescale

Request for Proposal Issue: Thursday 23rd April 2015

Proposals to be submitted as email attachments by 17:00 on Wednesday 13th May 2015

PTCH to submit RCEF Stage 1 Grant application to WRAP by end of May 2015

WRAP response assumed earliest mid July 2015

Feasibility Study Agreement and start of work assumed early August 2015

5. PTCH Representatives

PTCH liaison, questions and submittal of proposals by email to:

Tony Pope: anthonympope@btinternet.com PTCH Chairman

Copy to:

Keith Thomas: keith.thomas62@btinternet.com PTCH committee member

Harry White: harry@devonmoor.org PTCH committee member

Peter Smith: peter.youlditch@gmail.com PTCH committee member

Any clarifications will be circulated to all bidders.

Rural Community Energy Fund

Initial Feasibility Report Checklist

Under Stage 1 of the Rural Community Energy Fund (RCEF), communities receive funding to undertake an initial investigation into the feasibility of successfully developing a community scale renewable energy installation. The results of this investigation must be presented to WRAP in an initial feasibility report. The strength of the initial feasibility report will be a key factor in evaluating projects for further funding at Stage 2.

In order to assist communities in gathering this information and to ensure a consistency of information across multiple projects, we have provided guidance on the aspects to be considered during your feasibility study.

The following guidance sets out the basic structure for compiling the feasibility report for Stage 1 of the Rural Community Energy Fund. **This is guidance on content, not a prescriptive format for the feasibility report.** You should include all information that is relevant to your project.

Report Length: There are no restrictions on report length, but please note that WRAP wishes to only receive information which is of direct relevance to the project.

Format: The report should be produced by addressing the sections below. Please answer the specific questions as well as adding any further information that will help assess the viability of taking the project forward to Stage 2 and beyond. Please also attach any relevant documents, maps, quotes, surveys, etc., undertaken as part of the feasibility research.

Key points to producing a feasibility report: Remember that a feasibility study is a formalised, written approach to evaluating your project, it can help you identify:

- If your idea is viable or not
- Useful facts and figures to aid decision-making
- Alternative approaches and solutions to putting your idea into practice

1. Executive summary

a. Please provide a short summary of the background to the project
   i. Who is the community involved?
   ii. What legal structure have they chosen to form?
   iii. Who are the key players involved?
   iv. What technology options have been explored?

b. Please provide a short summary of your findings
   i. Is the technology suited to the location and proposed installation?
   ii. Is there adequate community support for the project?
   iii. Is the project likely to secure the planning and permitting required?

2. Community Engagement

Please detail the level of support for the project in the community. This will help determine some key aspects of project feasibility such as the likelihood of obtaining planning permission, opportunities for income generation and the required scale of installation. Therefore the key information we expect to see in this section is:

a. How much support is there for the proposed installation within the community?
b. How many members of the community have indicated that they would invest in, purchase energy from or otherwise support the proposed installation?
c. What methods of community engagement have been undertaken? Please attach minutes of community meetings, surveys, petitions etc.
d. Have there been any strong objections raised, either by members of the community or those outside of it?
e. Have you identified the key stakeholders within the community (for example Local Authority, building owners etc.)? If so, please list them here.
f. How have you engaged with local stakeholders and what support do you have?

3. Community Benefits

Please detail the type and scale of benefits to the community.

a. What are the identified benefits to the community?
b. How many people will benefit?
c. Will any jobs be created within the community as a result of this project?

4. Technology

Please outline what technologies have been considered and which technology or technologies have been selected to take forward by the community.

a. What is the preferred energy generating technology of the community?
b. What size of generation plant is being considered?

c. What investigations have been carried out into the suitability of the technology to the proposed location?
d. How feasible is it to export the energy to the national grid or to local users?
e. What is the cost of a grid connection?
f. Have any alternative technologies to the preferred option been considered?
g. What limitations to the technology have been identified (e.g. potentially limited times of operation, seasonality of operation, seasonality of energy requirements, etc.)

5. Financial Projections

Please outline the financial model for the installation. It is important to get an idea of the financial viability of the project as far as possible at this early stage. This will be a key consideration in WRAP's decision to advance further funds. Key considerations at this stage are:

a. What is the estimated development cost of the installation?
b. What sources of funding have been explored?
c. Has any research been carried out into the possibility of community share issue?
d. What is the potential income from FITS, non-domestic RHI, selling energy etc?
e. What is the potential income from the community, customers etc?
f. What are the likely running costs of the installation over its lifetime?
g. What are the likely outgoings including loan repayments, staffing, insurance etc. over the lifetime of the installation?
h. What is the estimated surplus per annum which can be spent on community benefits?

6. Planning & Permitting

Please give details of required planning and permitting for the installation as well as a view on the likelihood of achieving planning permission. This is of particular concern when the project involves wind turbines, large solar arrays or hydro installations. Therefore we expect that as part of the feasibility report discussions take place with the local planning authority and any stakeholders who have the power to influence the outcome of planning applications. Similarly, if the proposed installation will require Environment Agency permits we expect to see evidence of consultation with the EA on this. Things to cover in this section:

a. Have discussions taken place with the relevant planning authority?
b. Have discussions been held with the Environment Agency?
c. What is the initial view on the likelihood of achieving planning?
d. Have any precedents been set?

e. Does the community organisation understand the legal requirements, e.g., Environmental Permitting Regulations, Duty of Care, etc?
f. What permits will be required?
g. Will an Environmental Impact Assessment be required?

7. Site

Please give details of the potential site for hosting the installation. This will help indicate the likely success of the project in terms of suitability to the technology, cost of securing the land, cost of connecting to the national grid or distributing energy to local households and buildings. Key things to cover are:

a. Has a suitable site been identified? (If so, please provide plans with details of placements and access requirements).
b. Is the site available to purchase or lease?
c. Has the site been tested for suitability to the proposed technology e.g. is it windy / sunny, if hydro is there access to a weir?
d. Are there any restrictions on the site's usage (e.g., SSI protection, AONB, National Park)?
e. Are there any neighbouring land owners who could object to the use of the site?
f. Is it currently possible to export electricity and/or heat from the site to the community/grid? If not, what is required to ensure the feasibility of this in the future (e.g., heat distribution networks, National Grid connection, heat boosters, etc)?
g. Who will be responsible for management of the site/installation on a day to day basis?

8. Operation and Governance

Please provide details of who will be responsible for overseeing the delivery and ongoing management of the project. This will be a key consideration of banks and other investors in making funding decisions about your project.

Key things to cover:

a. What legal entity (e.g. CIC/IPS etc.) will used to manage the delivery of the project, raise finance and oversee the ongoing delivery of the facility once built?
b. Is this legal entity suited to your chosen method of raising finance and distributing income?
c. Identify the key people responsible for managing the delivery of the project, raising finance and overseeing the ongoing delivery of the facility once built.
d. What suitable experience do these key people have?
e. What succession plans are in place to ensure the project/ facility remains actively managed over its lifetime?

9. Scheduling

Have you considered the scheduling of the project, including the meeting of project milestones such as delivery of technical reports, the gaining of planning, gaining of permits, identification of contractors, start of construction phase, etc?

10. Conclusions

Following the initial feasibility study, what is the likelihood of the community successfully developing this project through to completion – i.e. a fully operational renewable energy installation?