

SATTERTHWAITE PARISH COUNCIL
MICRO HYDRO ELECTRIC SCHEME
BRIEFING DOCUMENT

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INTRODUCTION

Satterthwaite is a rural parish lying in the undulating hills between Coniston Water and Windermere, within the Lake District National Park. Although it covers a wide geographical area, the resident population is very small, consisting of only 180 people, who mainly live in the three hamlets of Grizedale, Graythwaite and Satterthwaite. A large part of the parish comprises of the Grizedale Forest Park owned and managed by the Forestry Commission. The Parish Council is small and its only income is the precept, which for the current financial year is £2420.

The Parish has 171 dwellings, of which nearly 50% are second homes or commercial holiday lets, far in excess of the government's suggested limit of 20%, beyond which communities become unsustainable. The effect of this is very noticeable: the shop closed some years ago, the school closed within the last few years and the church and parish room are under threat. The inn remains closed for most of the winter months. The apparent opulence of the southern Lake District masks the reality of rural life for most residents, who are employed in low paid service jobs in the tourism industry, or in forestry.

PROJECT

The area has a wealth of natural resources, in the form of high average rainfall and tumbling becks, many on land in the ownership of the Forestry Commission. Initial flow rate measurements on two becks to the west of Satterthwaite, indicate that even in periods of prolonged drought the flow rate remains fairly constant. A micro hydro electric scheme at Farra Grains, confined for the most part within a deep ravine in mixed woodland, and using existing infrastructure and access roads, would have no impact on the natural beauty of the surroundings and provide a substantial proportion of the electricity needs of the parish by sustainable low carbon means for the life of the turbine, usually 25 to 30 years.

By selling the electricity directly into the National Grid, allowing for maintenance, depreciation and repairs, the parish is likely to have a surplus of funds for residents to use to keep their community alive, its public buildings and recreation area in repair and to reduce its carbon footprint further.

In addition, in combination with the Forestry Commission's newly installed biomass boiler at Grizedale, the parish would be leading the field in sustainable energy, an extremely topical subject for school groups visiting the Yan Education Centre at Grizedale.

PROJECT AIMS AND MEASURING SUCCESS

The project has three aims:

1. To enable the parish to be self sufficient in low carbon electricity by generating low carbon electricity and through energy efficiency initiatives.
2. To fund parish development to ensure a vibrant community can be sustained.
3. To create a focal point to inspire others to utilise the natural features of the environment for parish development.

The success of the project will be gauged by making four measurements related to these aims.

1. Measure the electricity used and generated and calculate the amount of the CO₂ saved.
2. Measure the number of development actions from the parish plan completed.
3. Measure the number of requests for information about the project.
4. Measure the number of school children visiting the project.

PROJECT STATUS

Following some initial professional advice we have been advised that the scheme has possibilities. In addition we have located sources of potential funding. The project will have two broad phases:

1. A feasibility study to produce a design for the scheme and to seek costs from installers so that a project plan can be designed.
2. To commission installation of the appropriate equipment including connection to the National Grid and construction of the accompanying infrastructure.

Both of these phases will require funding. At the current time we have applied for and secured funding for the first phase. The feasibility study will commence in late July.

PROJECT MANAGEMENT

Following the successful conclusion of the feasibility phase the intention is to create an organisation representing all parish parties to manage the project. This organisation will be responsible for the financial management of the project including the use and disbursement of the funds generated.

FUTURE PLANS

Once the scheme begins to generate electricity it will become self financing. Money will be allocated to turbine maintenance, depreciation and repairs to ensure the longevity of the

scheme. Surplus funds will be used to finance schemes that aid parish development. Such schemes will be initiated by the managing organisation but potential ideas could include:

- Installation of additional turbines to enable full self sufficiency in low carbon electricity
- Creation of energy efficiency programmes to reduce the amount of energy consumed
- Improvement and maintenance of parish facilities
- Establishment of projects in relation to affordable housing and job creation
- Education and training opportunities for parish residents to enhance parish life