



## Hydrobot Discovery Proposal

### Hydrobot Background:

Hydrobot is a computer model designed to identify commercially viable small-scale hydro sites. It evaluates the full set of parameters that might impact on schemes, including;

- a. Environmental Data – river flow statistics provided by SEPA, Ordnance Survey topography, roads and railways, natural heritage land classifications, and national electricity grid
- b. Available Hydro Technology - turbines, generators and pipework
- c. Financial Factors – capital cost of equipment, operating costs, grants available, value of the electricity predicted

Hydrobot thus enables sites with significant potential to be identified– without the need for a physical survey. This enables clients to initiate site surveys and full feasibility studies – with substantial confidence – on only the most advantageous sites.

The model was employed on Scottish Hydro Power Resource Study commissioned by the Forum for Renewable Energy Development in Scotland (FREDS) and funded by the Scottish Government. The study identified some 1,000 sites capable of producing in excess of 650Megawatt of electricity. The Scottish Government published the Report and issued a Press Release on the 2<sup>nd</sup> September 2008. Both can be found at <http://www.scotland.gov.uk/News/Releases/2008/09/02084203>

### Client Actions:

Clients are required to identify the stretch of river in which they are interested. This is done by defining the set of 1km<sup>2</sup> Ordnance Survey Grid Squares in which the potential source of energy may lie.

### Instructions:

- a) Go to <http://www.nickforrestassoc.co.uk/>
- b) Click on the link – **Order a Hydrobot Report**
- c) Click on the – **Select Tiles** – button
- d) Zoom in on the map to your areas of interest and then click on the – **change to 1km<sup>2</sup>** – button at the top right of the page
- e) Click on the desired tile or tiles and **add to basket** using the button on the right-hand-side of the page
- f) Pay by card

### Deliverable:

#### Hydrobot Discovery Report:

The auto-generated output of the model is a map of the area selected for evaluation showing the potential hydro sites, and a detailed 6 page report, including;

- Identification of any commercially viable site
- Critical design features used in the assessment
- Map showing point of water extraction and point of return
- Quantity of electricity forecast to be available
- Value of the electricity and lifetime profitability

A sample of the Report is available from the website – <http://nickforrestassoc.co.uk/images/samplereport1.pdf>

### Price:

#### Per 1km<sup>2</sup> Tile

**£35.00 plus VAT**

**For more information please call Gordon Black on 07736 554276  
or e-mail him at [gordon@hydrobot.co.uk](mailto:gordon@hydrobot.co.uk)**