

Microgeneration strategy: hydro-electric schemes

Submission to teams involved with the preliminary stage of the DECC Microgeneration Strategy consultation

INTRODUCTION

I am offering this submission for consideration by all the teams in the DECC consultation “basecamp” forum. It is aimed entirely at **on-shore hydro-electric technology**.

My main contention is that micro hydro should be treated as a separate case for short and long-term strategic purposes and disconnected from the treatment of the “mass” microgeneration technologies. This appears to fit well alongside the work done in the preliminary stage of the consultation which makes no specific mention of micro hydro (except in the ‘Quality’ area).

There is nonetheless a need to develop a short term policy for micro hydro technology and a solution to the present impasse resulting from the failed attempts to shoehorn the technology into MCS. This also seems the opportune moment to establish a long term strategy for exploiting the UK’s natural inland water resources for microgeneration in an environmentally sustainable way.

BACKGROUND

Of the various microgeneration technologies which can be introduced on a small scale, hydro is the most site-specific, both in terms of economic viability and of design. Yet it is, and will be, arguably the most efficient means available for the foreseeable future of obtaining electrical energy from a “renewable” energy resource.

Being so site specific, the attempt to fit hydro into the MCS installer and product standards being used for other “mass” microgeneration technologies has proved intractable. The hydro installer standard published to date will at best need significant revision before it can be applied meaningfully and economically to the industry, and the hydro product standard under development is still subject to considerable disagreement. In order to meet the aims of the Government to make a rapid start with all the available microgeneration technologies, the industry is now proposing that micro hydro be removed from the list of MCS technologies and dealt with under the ROO-FIT process pro tem. In addition a more appropriate means of assuring the quality of installations will need to be introduced.

The present consultation as I understand it is rightly aimed at developing long term strategy. I therefore propose that the consultation teams consider the short and long term strategic issues separately. I have outlined my proposed approach under the main headings of **short term actions to move the micro hydro industry forward** and a **long term strategic approach to micro hydro-electric generation**.

SHORT TERM ACTIONS TO MOVE THE MICRO HYDRO INDUSTRY FORWARD

MCS: *remove micro hydro from MCS list of mass microgeneration technologies*

FiT: *revert pro-tem for micro hydro to normal Ofgem scheme accreditation under ROO-FiT procedures*

quality: *establish, on a pilot basis, a design and site inspection process for micro hydro FiT eligibility*

training: *review availability of training for hydro engineering supply chain and establish new courses (necessary for training hydro installers and for certification bodies to be in a position to take on hydro scheme inspections)*

planning regulations: *revise these to prevent duplication with other agencies*

environment protection: *linking with EA & SEPA consultations, identify and remove impediments*

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LONG TERM STRATEGIC APPROACH TO MICRO HYDRO-ELECTRIC GENERATION

The industry

technology: *initiate specific research into efficiency and resilience (long term) for micro hydro*

skills: *support the development of training and career development in design, manufacture, installation, maintenance and support*

advice: *linked with mass technology advice being proposed by the Advice team, develop services specific to hydro generation and its integration where relevant with other technologies and approaches to energy conservation*

quality: *encourage user/industry groups to monitor the effectiveness and quality of supply, installation and operation of micro hydro schemes*

Other issues to be addressed

property: *'ownership' or otherwise of the water power ("whose water energy is it anyway?"), shared boundary watercourse, transfer of property, leased schemes*

environment: *understanding of the environmental impact of micro hydro: initiate studies in conjunction with environment agencies and universities of the actual impact of micro hydro schemes with a view to setting meaningful environmental guidelines and regulations*

electricity industry: *(what is the most effective means of establishing and maintaining hydropower schemes)*

- a) *roles of electricity industry players (consider bringing hydropower under the umbrella of the DNOs as part of the UK power infrastructure with a requirement on the DNOs to identify and implement schemes in their regions – financial support for infrastructure investments)*
- b) *options for landowners (establish wayleaves if schemes involve use of their land for water abstraction, pipelines or cables)*

planning and regulation: *revise thresholds for permitting very small schemes (say below 4kW DNC or 25 MWh/annum output) that are unlikely significantly to affect the environment, sites of historic interest, etc.; remove disproportionate bureaucracy*