

## Consultation paper on mCHP for the Cabinet Office

### Introduction

This document summarises those regulatory and related issues that have the potential to impede the deployment of small-scale CHP applications into the UK marketplace, especially in domestic applications. It draws on experience gained during the collaboration between Baxi Group Ltd and SIGMA Elektroteknisk AS in developing a CHP device for sale in the UK.

This paper is concerned with CHP devices with electrical outputs of <5kW (micro CHP or domestic CHP when deployed in residential property).

### Electricity export issues

The ability to make electricity export from dCHP is key to achieving many of the broader environmental gains. Major issues that need to be addressed in this area include:

- The permitting arrangements by which small scale CHP can be connected to the Grid. Current arrangements are impracticable at the scale and volume necessary for successful deployment.
- The connection and quality standards for generation. An appropriate and common standard is needed here. This issue is currently under discussion in a European forum, within CEN.
- Pricing arrangements for exported electricity are fundamental to the selling proposition for dCHP. Arrangements here will need to reconcile the commercial interests of the purchaser of the dCHP unit (whether home owner or ESCo/ third party) and the Distribution Company.
- The impact of NETA for embedded generation as a whole is emerging rather than established. When it is appropriate to make a full evaluation here the scale, distribution and supply pattern for dCHP may require consideration separate from embedded generation as a whole.
- The likely channel for deployment of dCHP devices will be by financing arrangement either provided or sponsored by an ESCo. Under current regulations, it could not be 'tied' to either gas or electricity supply. Some modification here could provide an extremely powerful incentive for ESCo's to support dCHP implementation.

### Other issues

- The successful deployment of dCHP (rather than mCHP) will require the CHP units to achieve the same levels on performance, in particular reliability and maintenance needs, as well developed domestic devices (such as a refrigerator compressor) immediately on launch. There is a significant risk here. Early poor performance will do disproportionately severe damage to the longer-term market. Experience from pilot placement of dCHP units in less demanding (and probably non-export) applications could mitigate this risk considerably. Possible responses here could be based on Government building stock and/or the approach to the Buildings Directive.
- Finance for small scale CHP units will have a residual risk arising in case of property sale or the early ending of tenure. It may be possible to take some account of these in the structuring of the concessions connected to QA programme for CHP.