

# A GOOD PRACTICE GUIDE TO MICROGENERATION IN SOCIAL HOUSING

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## About this guide

In recent years there has been growing interest amongst social housing providers regarding the use of microgeneration technologies to combat fuel poverty and reduce carbon dioxide emissions. However, there remains considerable uncertainty about how to best deploy such technologies efficiently and effectively.

This short guide has been written to help local authorities, housing associations and other social housing providers to make more informed decisions about how to use microgeneration technologies efficiently and effectively. It contains a series of questions that social housing providers should ask at each stage of a microgeneration scheme to ensure the scheme has the best possible chance of being a success.

This guidance combines findings from a two year study funded by the Eaga Charitable Trust, and other research and consultancy projects undertaken by researchers at Sheffield Hallam University. Further information about the research can be found at [www.eagacharitabletrust.org](http://www.eagacharitabletrust.org) or by contacting Dr. Fin O'Flaherty at Sheffield Hallam University ([f.j.oflaherty@shu.ac.uk](mailto:f.j.oflaherty@shu.ac.uk), 0114 225 3178)

## Implementing microgeneration schemes

The careful planning, designing and operation of microgeneration schemes is critical to ensuring that residents and other stakeholders receive the maximum benefit from microgeneration technologies. Common problems encountered in a scheme include choosing the wrong type of technology, specifying the wrong equipment or size of system, targeting properties that are not suitable for microgeneration technologies or not monitoring or maintaining their performance throughout their service life. Questions to consider, therefore, are given below.

### Scheme inception

- What is the rationale for installing microgeneration technologies in the target properties?
  - Are the properties off the gas grid?
  - Are the residents in fuel poverty? If so, are there more cost-effective ways to address this problem?
  - Have you learned from the experience of other public sector housing agencies who have carried out similar projects in your area?
- How will the scheme be funded?
  - Will the scheme be funded using grant funding or feed in tariff (FiT)/renewable heat incentive (RHI) payments?
  - If you are using FiT/RHI payments, will you fund the scheme or will you handover responsibility to a third party? Has a risk analysis been conducted on the scheme? Is the third party responsible for the risks associated with the scheme?
  - Have suitable checks been conducted on the reliability of the third party?
  - If you are funding the scheme, what is the likely payback period?
  - Is there sufficient time to roll-out the scheme before any reductions to tariff payments?
  - Is suitable expertise available to deliver the scheme e.g. procurement, legal, technical, administration etc.?
  - Who will manage the collection of the FiT/RHI payments?
- Will the scheme have multiple benefits, such as the alleviation of fuel poverty, improved quality of life, environmentally friendly neighbourhoods, carbon reduction and meeting EU targets, job creation and safeguarding industry jobs, stimulating the local economy? If so, how will these be measured?

## **Engaging and Supporting Tenants**

- Have you consulted with residents regarding the type of technology to be installed? Will residents have a choice of technology? Have the likely benefits been explained to them?
- Have tenants had the opportunity to visit similar homes / households in which technologies have already been installed?
- If you are considering solar thermal, do the properties have a high enough hot water demand? Does the property have an electric shower and cold feed washing machine?
- If you are considering solar thermal/PV, are the tenants able to make use of the 'free' electricity at the time when it is available?
- Do the properties include vulnerable people (elderly, people with disabilities) who may struggle to cope with installation/operation of the technologies?
- Who will be responsible for supporting tenants as they learn about how to get the best from the new system? Is there a help-line or similar for reporting problems or providing information? Will housing support officers or their equivalents be trained in using the new technologies?
- If heat pumps are being installed, have appropriate electricity tariffs been considered and specified?
- Will the residents be informed on how to spot malfunctions with the technologies?
- Will the residents be encouraged to monitor performance to make them more conscious of energy usage?

## **Suitability of properties**

- Are the target properties suitable for installing microgeneration technologies?
- Do the properties have a high enough SAP rating? If not, could the funding be used to improve the energy efficiency of the properties instead?
- If you are considering solar thermal/PV, are the roofs of the properties orientated appropriately and are they strong enough? Is shading present from trees/chimneys? Are roof lights present?
- Has consideration been given to installation of technologies in right-to-buy properties?

## **Installation/commissioning**

- Are the installers accredited, for example under the Microgeneration Certification Scheme for technologies used to produce electricity and heat from renewable sources?
- Are they able to provide references for past installations?
- Is the equipment high quality?
- For PV installation, has the Distribution Network Operator been informed in good time to ensure sufficient capacity for exported electricity to the grid?
- Is there someone within the organisation with a working knowledge of different microgeneration technologies? Can this person liaise with residents to explain how to get the most from these technologies?
- Will a defects period/guarantee be offered with the installation?

## **Operation/maintenance**

- Who will be responsible for maintaining the microgeneration technologies during their service-life?
- Will the resident be informed on how to spot malfunctions with the technologies?
- Will the residents be encouraged to monitor performance to make them more conscious of energy usage?
- Does the maintenance staff have sufficient knowledge of the technologies?
- Will the overall scheme be monitored to determine its impact e.g. alleviation of fuel poverty?
- Will insurance be required?

## **End of life**

- Has consideration been given to the end-of-life of the technologies?
  - Will the technologies be removed at the end of a fixed payment period e.g. FiT/RHI?
  - How will the technologies be disposed of?
  - Has a sinking fund been created to cover removal/disposal costs?