

Digest

Making the most of renewable energy systems

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This BRE Digest describes the most popular renewable energy technologies included in the Microgeneration Certification Scheme. An overview of the safety, performance and reliability considerations for each technology is provided together with eligibility criteria for applicable financial incentives. This Digest will be helpful to anyone considering, or who is responsible for, small scale renewable energy systems serving either domestic or non-domestic buildings, including architects, specifiers, landlords, home and business owners.

A number of references are also provided to facilitate a more detailed review of specific technologies, where required.

Summary

Renewable energy systems extract energy from sunlight, air, water or the ground and convert it into a useable form – usually electricity or heat. They can therefore wholly or partially replace systems using gas, mains electricity or oil. However, when considering using renewable energy systems instead of such traditional systems, many additional factors that influence safety, reliability and performance need to be considered.

Like traditional systems, it is essential that renewable energy system installations are correctly designed. However, for renewable energy systems this also includes taking into account applicable site-specific characteristics such as the structural integrity of the building, solar resource, local topography, geology and climate, and neighbouring buildings and obstructions. For heat generating technologies the building's heat demand, thermal properties and air tightness should also be carefully considered.

When correctly installed such systems have the potential to provide a significant proportion of the electricity or heating requirements of a building and, if eligible for financial incentives such as Feed-in Tariffs (FITs) or Renewable Heat Incentive payments, can also provide a good return on investment.



Renewable energy systems are becoming an increasing part of our landscape

Conversely, a poorly designed and/or executed installation may not only perform badly and be expensive to operate and maintain, but also may not be able to achieve the expected level of comfort for the building occupants.

Using the Microgeneration Certification Scheme (MCS) certificated installers and products will not only help ensure that systems operate correctly but also may be required if the system is to be eligible for financial incentives. BRE Global certifies installers and products for each of the renewable energy technologies described in this Digest and lists details on www.greenbooklive.com/microgen.