

Micro Combined Heat and Power (CHP)

Micro-CHP is a specific form of CHP designed for individual households. It replaces a standard domestic gas boiler, generating heat and electricity simultaneously, from the same energy source. A typical domestic system is expected to have the potential to generate up to 1kW of electricity per hour, which would be enough to power the lighting and appliances in an average home. The amount of electricity generated ultimately depends on how long the system is running.

Most domestic micro-CHP systems use mains gas or Liquid Petroleum Gas (LPG) as a heating fuel, although they can also be powered by oil or biofuels. While gas and oil are not renewable energy sources, the technology is still considered to be a 'low carbon technology' because it is more efficient than just burning the fossil fuel for heat and getting electricity from the national grid.

Micro-CHP systems should always be installed and run to meet the heating needs of the building, rather than to generate more heat than is needed just to meet electricity demand. The electricity generated should be treated as a useful by-product of heat generation. For this reason, electricity will only be generated when there is a heat demand.

Because they only generate electricity when there is a heat demand, micro-CHP systems are more cost effective in houses with large heat demands that cannot be reduced by other means such as upgrading insulation, draught proofing and other low carbon heat technologies such as wood stoves.

Any electricity generated and not used in the home can be exported back to the grid.

Micro-CHP installations may be eligible for Smart Export Guarantee) – see Factsheet 4.o