

MALCOLM WICKS, Energy Minister at the Department for Business, Enterprise and Regulatory Reform, outlines steps being taken by the Government to encourage us all to reduce our carbon footprint

Climate change is a serious global threat, and it's absolutely vital that recent efforts by world governments to reach a deal on cutting global emissions are matched by action by each and every one of us. And that means that industry, regulators and consumers alike should all be taking steps to reduce our carbon footprint.

In 2003 the UK emitted 560 million tonnes of CO₂. Figures from the Carbon Trust show that in that year domestic premises emitted 26% of the total carbon emissions, with commercial and public building emissions standing at 13%.

So if we're to reach the UK's 60% reduction target by 2050 it is absolutely essential that we cut the CO₂ emissions from our buildings – and microgeneration has the potential to play a significant role in the achievement of this objective.

The Low Carbon Buildings Programme (LCBP) was developed in response to the recommendations of the Renewables Innovation Review, which looked at the potential for renewable products and barriers to their uptake. Through the LCBP the Government has made £86m available in the form of grants for microgeneration technologies.

Launched in April 2006, its main objective is to demonstrate the potential of combining both energy efficiency and microgeneration technologies in our homes, community and business buildings, with the added benefit of driving down costs in the process.

The programme is divided into two phases, with the overarching long-term objective of helping to build a sustainable microgeneration industry that can survive without Government funding.

Since the launch of the programme grants of approximately £25m have been allocated to

around 5,500 projects. Nearly 4,800 householders have been awarded £7.5m to help generate their own clean and green energy, while £18m has been awarded to 790 projects for schools, community, housing association and business buildings.

My department is working closely with the Carbon Trust to raise awareness of the business case for developing low-carbon buildings, especially with the construction industry. In fact, through LCBP Phase 1 Stream 2B funding we're encouraging the development of commercial scale projects – both new build and refurbishment – as standard 'best practice' buildings for subsequent replication.

Although all non-domestic funding streams through LCBP Phase 1 have now closed to new applicants, LCBP Phase 2, launched in December 2006, remains open. Today £43m remains available from the £50m originally set aside under Phase 2, in the form of part funding grants for the installation of microgeneration technologies in public-sector buildings, including schools and charitable bodies.

A total of seven framework suppliers have been appointed to oversee the supply and installation of microgeneration technologies, and in order to qualify for a grant applicants are required to enter into agreements with one or more of these suppliers.

The larger volumes bring economies of scale, so the framework suppliers are able to offer the technologies at lower costs.

The microgeneration industry should also benefit because of increased investment in the supply chain by framework suppliers as a result of receiving larger volumes of orders.

Combining energy efficiency measures with the fitting of microgeneration technologies in school and other public-sector buildings can and will make a real difference. The selling of any excess electricity produced by these technologies back to the national grid is another benefit of having them installed.

Microgeneration technologies in schools and colleges also help to educate the next generation

about the importance of renewable energy. School pupils benefit by being able to see renewable energy in action and seeing the tangible benefits of microgeneration technology at first hand.

In fact, the opportunity to monitor visually the energy savings made was one of the reasons Runshaw College in Lancashire chose solar PV when it applied for funding under LCBP Phase 2. It received a grant of £27,000 towards the installation of solar PV technology – half of its total system installation costs of £54,000. The long life of solar PV and the opportunity to claim renewable obligation certificates underlined the technology as the right choice for the further education college.

This year sees the implementation of the Energy Performance of Buildings Directive, when all schools in England will have to measure the amount of energy they consume each year and rate themselves accordingly. Alongside other energy-saving areas such as utility management, renewable energy technologies – including microgeneration – have an important role to play in helping schools reduce the amount of energy they use and in improving their overall energy performance.

For example, Fulston Manor is a mixed comprehensive secondary school in Sittingbourne, Kent, with over 700 students. Its 4kWp solar photovoltaic (PV) system was installed with the help of a grant of £10,000 from the LCBP as well as sponsorship from The Co-operative Group.

The school now has 26 modules on its flat roof, which are predicted to generate over 3,300kWh of clean, carbon-free electricity every year and save over two tonnes of CO₂ from entering the atmosphere every year. The school has a meter in its main reception area for visitors and pupils to see how much electricity the solar PV system is producing and how much carbon is being saved from entering the atmosphere.

Phase 2 grant levels of 50% are available for solar PV, while grant levels for solar thermal hot water and micro wind turbines are 30%. Funding for ground-source heat pumps and biomass boilers is 35% of the total cost.

Organisations can apply for up to £1m per site and a site may include more than one property. Multiple applications from one organisation for different sites may be acceptable.

Prospective applicants should ensure that they have also taken energy efficiency measures before installing microgeneration technologies, as this will ensure a more effective installation. Other points:

- The technology must remain installed and in use at the premises for at least five years following payment of the grant.
- The grant must be used to fund the supply and installation of a renewable energy scheme at a permanent building in the UK.
- Projects where the installation of micro-generation measures has already started are not eligible.
- Size limits of 50kW apply for electricity and 45kW for heat.

Benchmarks in terms of £/t CO₂ also apply and may act as a cap on the grant.

In closing, I'd like to say that the Low Carbon Building Programme is not just about capital grants: the aim is to develop a whole strategy that will create a sustainable market for the future. The role of new technologies is crucial in helping us respond to the threat of climate change, and the LCBP is part of that response.

For further details of Phase 2 of The Low Carbon Buildings Programme, visit www.lowcarbonbuildingsphase2.org.uk.