

The Planning Series: 9 – Small-scale renewable energy schemes

Quick Guide

October 2012

What are small-scale renewable energy schemes?

Small-scale renewable energy schemes (microgeneration) include the installation of solar panels and wind turbines at domestic and non-domestic premises, as well as other renewable and low carbon energy installations at these premises such as ground or air source heat pumps, biomass systems and combined heat and power (CHP) systems.

How is this type of development controlled?

Guidance on the Welsh Government's national planning policy for renewable energy is set out in section 12.8 to 12.10 of **Planning Policy Wales Edition 4 (2011)** and **Technical Advice Note 8: Planning for Renewable Energy**. The Welsh Government also published **Energy Wales: A Low Carbon Transition in March 2012**. The Government's policy is to encourage the installation of small-scale renewable and low carbon energy equipment alongside energy efficiency measures and large-scale renewable energy development.

The installation of any kind of energy equipment outdoors is considered to be development. Some of this equipment is considered to be 'permitted development'¹ and therefore does not require planning permission, whilst other types will require a planning application to be made to the Local Planning Authority.

What kind of equipment is permitted development?

For the purposes of current permitted development rights for domestic properties, microgeneration is defined under the *Energy Act 2004* as follows:

- Technologies that generate **electricity** - 50 kilowatt (kW) capacity
 - including solar photovoltaic (PV) panels, solar panels and micro-combined heat and power (CHP)
- Technologies that generate **heat (thermal)** - 45 kW capacity
 - including heat pumps, biomass and solar thermal

Domestic Premises

Changes to Permitted Development rights introduced by the Welsh Government in 2009 and 2012 have made it easier to install **domestic** microgeneration equipment.

The types of energy equipment for **domestic premises** (either a house or flat or an outbuilding) that are currently considered to be 'permitted' are:

¹ Further details are contained in **Quick Guide: Developments that don't need planning permission**

- **Solar panels on roofs or walls** of a house, flat or outbuilding:
 - **On a wall or pitched roof** - up to 200mm in depth; the panels must not extend higher than highest part of the roof;
 - **On a flat roof** – more than one metre from the roof edge; does not protrude more than one metre above the plane of the roof;
- **Single stand-alone solar panel** array within the boundary of a house or flat - no more than one stand-alone solar array; must not exceed four metres in height (or two metres in height if within five metres of the site boundary);
- **Single ground or water source heat pump** - anywhere within the boundary of a house;
- **Single air source heat pump** – it must comply with MCS Planning standards or equivalent²; no stand-alone wind turbine can be already installed; the compressor unit that doesn't exceed one cubic metre; it can't be within three metres of a boundary; not on a pitched roof or within one metre of a flat roof edge; it can't be on a roof or wall facing a highway and must be used solely for heating purposes;
- **Single flue** - for a biomass heating system (up to one metre above the height of the roof);
- **Single stand-alone wind turbine** – no air source heat pump can be already installed; the turbine blades must be non-reflective, the blades must be greater than five metres from ground level and swept area does not exceed 9.6 square metres; overall height does not exceed 11.1 metres; the turbine should not be closer to the boundary than 110% of wind turbine height; it can't be on 'safeguarded' land³; and
- **Temporary (up to 12 months) single anemometry mast**⁴ – no wind turbine or air source heat pump can be already installed; the mast must be less than 11.1 metres; not closer to the boundary than 110% of the mast height; an anemometry mast has not been installed at the same location within the preceding 5 years.

In the case of solar panels (including stand-alone solar), air source heat pumps and wind turbines, permitted development is conditional on minimising the effect on the amenity of the area and the visual impact on the house, flat or outbuilding and the equipment must be removed if no longer needed.

There are no permitted development limits relating to the **amount of electrical output produced** for households, but for stand-alone solar systems there are limits on the size of the array. For biomass and CHP systems housed inside a building, planning permission is not required.

There may be other areas where the exercise of a permitted development rights could have a serious impact. A local planning authority can serve a direction to withdraw permitted development rights in a particular area, if it considers this to be necessary. Such a direction has to be approved by the Welsh Government.

² The product and installation standards for air source heat pumps and wind turbines specified in Microgeneration Certification Scheme MCS 020 - Issue 1.0 dated 19 August 2011 published by Gemserv Limited.

³ Land safeguarded for aviation or defence purposes

⁴ A mast installed for the purpose of measuring wind speeds and directions;

Non-Domestic Premises

Following a consultation in 2010, the Welsh Government has made further amendments to permitted development rights to allow the certain types of equipment for **non-domestic premises** to also be 'permitted' from October 2012.⁵

Six new classes of permitted development have been added allowing the installation of certain types of microgeneration equipment, specifically **solar panels, stand-alone solar panel array, ground source heat pumps, water source heat pumps, flues forming part of biomass heating systems and flues forming part of combined heat and power systems**. The guidelines for these developments are similar, although not identical, to those for domestic premises.

The amendments also clarify that permitted development rights apply to **buildings on agricultural or forestry land** to house microgeneration equipment, and in particular to house **hydro-turbines, biomass boilers and anaerobic digestion** systems. The buildings can also be used to store associated fuel and waste, as long as the fuel or waste is produced on the agricultural or forestry land or by the boiler or system.

When is planning permission required?

The installation of some of the energy technologies mentioned above is not considered to be 'permitted development' in **Conservation Areas, World Heritage Sites, Areas of Outstanding Natural Beauty** or **Sites of Special Scientific Interest** or if they affect a **Listed Building**. In certain cases planning permission would therefore still be required.

Flats are only covered by these permitted development rights where they exist in a building consisting solely of flats. If the flat is over a shop then the rights do not apply⁶.

Wind turbines and air source heat pumps were originally excluded from the changes to domestic permitted development rights introduced in 2009 because of concerns about noise. Air source heat pumps are now permitted development on both domestic and non-domestic premises. **However wind turbines still require planning permission on non-domestic premises, although a single stand-alone turbine can now be installed at domestic premises. Wall or roof mounted wind turbines require planning permission.**

Other Considerations

According to the Welsh Government a number of considerations may influence the type of equipment installed and its location on, or within the boundary of a domestic property.

Consideration should be given to impacts on:

- Neighbours;
- The character of the home and the street;
- Sites and remains of archaeological interest;
- The setting of a nearby Historic Park or Garden Trees (especially those subject to a Tree Preservation Order); and
- Protected species and Biodiversity.⁷

⁵ Welsh Government, *Consultation on Microgeneration and Low Carbon Energy Technologies*, 2010 [accessed 19 September 2012]

⁶ Welsh Government, *Generating your Own Energy: The Current Planning Regulations*, November 2011 [accessed 17 September 2012]

⁷ *Ibid*

There may also be other permissions and consents needed, depending on the renewable energy system, such as:

- **Listed Building consent** - if a building is listed;
- **Conservation area consent** - if the development is in a conservation area;
- **Trees** – Many trees are protected by tree preservation orders;
- **Building Regulations** – New building work will often need to comply with Building Regulations;
- **Wildlife** – Some buildings may hold roosts of bats or provide a refuge for other protected species – these are given special protection; and
- **Environment Agency licences.**⁸

Further information

For further information on planning for **small-scale renewable energy schemes**, please contact **Graham Winter** (Graham.Winter@Wales.gov.uk), Research Service.

The **Research Service's Microgeneration Quick Guide** provides further information on types of microgeneration technologies and financial incentives that are available for installing these.

See also:

Welsh Government

The [planning section](#) of the Welsh Government's website provides information including:

Generating Your Own Renewable Energy: A Planning Guide (although this has not yet been updated to reflect the changes to Permitted Development introduced in 2012) and

Technical Advice Note (TAN) 8: planning for renewable energy.

ENTEC research reports

The **Micro Power Council** – set up to research and promote micro-generation

Energy Saving Trust – information about the financial aspects of generating your own energy

The Micro-generation Certification Scheme – provides information about micro-generation products and installers

Solar Keymark Scheme – provides information about solar thermal products and suppliers

Planning Aid Wales

Planning Aid Wales is a charitable organisation helping **eligible** individuals and communities to participate more effectively in the planning system. It provides advisory services, including a helpline.

Planning portal

The **Planning portal** is the UK Government's planning and building regulations resource. It includes information on the planning system in Wales, although some of the content only applies to England.

⁸ Welsh Government, *Generating your Own Energy: The Current Planning Regulations*, November 2011 [accessed 17 September 2012]

Other planning quick guides produced by the Members' Research Service:

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