

## Renewable Energy

### Introduction

Renewable energy is a general term used to describe any source of energy that occurs naturally and is not exhaustible, such as solar power, wind power or wave power. Energy from biological sources, such as wood burned as fuel, or biodiesel made from vegetable oil, can also be described as renewable if the crop is managed sustainably.

The Welsh Assembly Government has a target for annual renewable electricity production of 4TWh\* by 2010 and 7TWh by 2020. 4TWh requires an installed capacity of about 1,500MW; installed capacity by the end of 2005 was 543MW<sup>i</sup>. Of the remaining 1,000MW, the Welsh Assembly Government expects 80 per cent to come from onshore wind, and the rest from offshore wind and other renewables<sup>ii</sup>.

According to the DBERR, renewable energy provided 4.0 per cent of all electricity generated in Wales in 2006<sup>iii</sup>. This was comprised of 275GWh of hydropower, 867GWh of wind and wave power, 183GWh of landfill gas, and 84GWh of other biofuels<sup>iv</sup>.

### Current and proposed legislative competence of the Assembly

Under the *Government of Wales Act 2006*, the National Assembly for Wales can seek legislative competence through Acts of Parliament or Legislative Competence Orders (LCOs) to make a piece of law in the form of an 'Assembly Measure'. Measures can only be made in a specific policy area (or 'Matter') added to one of the 20 'Fields' (or broad subject areas) which are contained in Schedule 5 to the Act.

As "Environment" is Field 6 of Schedule 5 to the Act, and "town and country planning" is field 18, the National Assembly for Wales can seek Measure-making powers over environmental and planning matters that impact on climate change and energy efficiency through Legislative Competence Orders.

However, there is no field that directly encompasses "energy"; energy is not a devolved responsibility under the *Government of Wales Act 2006*. Under section 36 of the *Electricity Act 1989* the DTI is responsible for consents to the construction, extension and operation of onshore generating stations over 50MW.

### Forthcoming EU and UK primary legislation

- A binding target of a 20 per cent share of renewable energies of overall EU consumption by 2020 was finalised on 23 January 2008<sup>v</sup>.
- The Climate Change Bill was published on 14 November 2007.
- A White Paper on Energy was published in May 2007.

### EU policy

The EU has wide jurisdiction over energy matters. Principally, it conducts activities in observing energy markets, funding research into new technologies, and improving integration of European energy markets.

The development of renewable energy is a central aim of the European Commission's energy policy. The binding target noted above allocates a share of renewable energy that must be attained by every EU Member State, in order to achieve the overall 20 per cent target. The UK's share is 15 per cent<sup>vi</sup>, which acknowledges the UK's starting point as having the fourth-lowest share of renewable energies in primary energy consumption in 2005 (1.6 per cent)<sup>vii</sup>. Belgium, Cyprus and Malta have lower shares of renewable energy, while Latvia's share in 2005 was 40 per cent.

\* TWh = TeraWatt hours. 1 TeraWatt = 1,000 GigaWatts (GW). 1 GigaWatt = 1,000 kiloWatts (kW). 1 kiloWatt = 1,000 Watts.

## Key Welsh Assembly Government strategy documents and action plans

- The *Renewable energy route map for Wales* sets out proposals for moving Wales towards self-sufficiency in renewable electricity within a generation<sup>viii</sup>.
- The One Wales agreement commits the Welsh Assembly Government to several renewable energy aims, including drawing up an Energy Strategy, a review of TAN 8 including an upwards revision of targets for renewable energy, promotion of research and development into renewable technologies, and promoting on-farm renewable energy.
- The *Microgeneration action plan for Wales* sets out some priorities for action in order to facilitate the uptake of microgeneration technologies in Wales<sup>ix</sup>.
- *Technical Advice Note 8: Planning for renewable energy*<sup>x</sup> provides the framework within which applications for wind farms will be assessed. It also provides some planning information about other types of renewable energies.
- The *Ministerial Interim Planning Policy Statement on planning for renewable energy*<sup>xi</sup> amends the relevant sections of *Planning Policy Wales*.

## Useful links

- The Welsh Assembly Government has a website covering renewable energy: <http://new.wales.gov.uk/topics/housingandcommunity/housing/energyandfuel/renewable/?lang=en>
- The Department for Business, Enterprise and Regulatory Reform has a renewable energy website: <http://www.berr.gov.uk/energy/sources/renewables/index.html>
- The Renewable Energy Association represents British renewable energy producers: <http://www.r-p-a.org.uk/home.fcm>
- The renewable energy webpage of the Directorate-General of Transport and Energy can be found at [http://ec.europa.eu/energy/res/index\\_en.htm](http://ec.europa.eu/energy/res/index_en.htm)

## Further information

Research papers are available on carbon dioxide emissions in Wales, the Climate Change Bill, the White Paper on Energy, renewable energy, and the Environment Strategy for Wales at <http://www.cynulliadcymru.org/bus-home/bus-guide-docs-pub/bus-assembly-publications-research/bus-assembly-publications-economic.htm>

For further information on any aspect of renewable energy, please contact Gareth Clubb, Members' Research Service ([gareth.clubb@cymru.gsi.gov.uk](mailto:gareth.clubb@cymru.gsi.gov.uk)), 02920 898638

<sup>i</sup> DTI, *Energy Trends*, September 2007

<sup>ii</sup> Welsh Assembly Government, *Technical Advice Note 8: Planning for Renewable Energy*, July 2005

<sup>iii</sup> DTI, *Energy Trends*, December 2007

<sup>iv</sup> DTI, *Energy Trends*, September 2007

<sup>v</sup> European Commission, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: 20 20 by 2020: Europe's climate change opportunity*, 23 January 2008

<sup>vi</sup> European Commission, *Document accompanying the package of implementation measures for the EU's objectives on climate change and renewable energy for 2020*, 23 January 2008

<sup>vii</sup> European Commission, *Energy for the future: Renewable sources of energy*

<sup>viii</sup> Welsh Assembly Government, *Renewable energy route map for Wales: Consultation on way forward to a leaner, greener and cleaner Wales*, February 2008

<sup>ix</sup> Welsh Assembly Government, *Microgeneration action plan for Wales*, March 2007

<sup>x</sup> Welsh Assembly Government, *Technical Advice Note 8: Planning for Renewable Energy*, July 2005

<sup>xi</sup> Welsh Assembly Government, *Ministerial Interim Planning Policy Statement on Planning for Renewable Energy*, July 2005