

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 526MWⁱ. 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 renewablesⁱⁱ.

According to the DTI, renewable energy provided 4.0 per cent of all electricity generated in Wales in 2005ⁱⁱⁱ. This was comprised of 281GWh of hydropower, 715GWh of wind and wave power, 176GWh of landfill gas, and 61GWh of other biofuels^{iv}.

Overview of current statutory powers of the Assembly

"Environment" is field 6 of Schedule 5 of the *Government of Wales Act 2006*, and "town and country planning" is field 18. This means that the National Assembly for Wales can seek Measure-making powers over environmental and planning matters 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 generating stations over 50MW.

Forthcoming EU and UK primary legislation

- ◆ A Climate Change Bill was published in February 2007.
- ◆ A White Paper on Energy is expected to be published by May 2007: current policy is based on the *Energy White Paper 2003*^v.
- ◆ The European Council of 8-9 March 2007 called for a binding target of a 20 per cent share of renewable energies in overall EU energy consumption by 2020^{vi}. From the overall renewables target, differentiated national overall targets will be derived.

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. Prior to the recent declaration of the European Council noted above, energy policy was driven by the Commission White Paper *Energy for the Future: Renewable Sources of Energy*^{vii}, which set out a strategy to double the share of renewable energies in gross domestic energy consumption in the European Union by 2010 from 6 per cent to 12 per cent.

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

Key Assembly Government strategy documents and action plans from the Second Assembly:

- ◆ *Energy Wales: Route Map to a Clean, Low-Carbon and more Competitive Energy Future for Wales*^{viii} provides the policy background for renewable energy.
- ◆ *Technical Advice Note 8: Planning for Renewable Energy*^{ix} 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^x amends the relevant sections of Planning Policy Wales.

Legacy issues from the Second Assembly

The legacy paper of the Environment, Planning and Countryside Committee highlighted the following issues that could have an impact on renewable energy for the attention of the Third Assembly:

- ◆ The Environment Strategy for Wales
- ◆ The Climate Change Bill

The legacy paper of the Enterprise, Innovation and Networks Committee highlighted the following issue:

- ◆ Monitoring the progress of the Energy Route Map action plan

Useful links

1. The Department for Trade and Industry has an energy website:
<http://www.dti.gov.uk/energy/index.html>
2. The Welsh Assembly Government has a website covering renewable energy:
<http://new.wales.gov.uk/topics/housingandcommunity/housing/energyandfuel/renewable/?lang=en>
3. The Renewable Energy Association represents British renewable energy producers:
<http://www.r-p-a.org.uk/home.fcm>
4. The Energy portal of the Directorate-General of Transport and Energy can be found at
http://ec.europa.eu/energy/index_en.html

Further information

Research papers covering Renewable Energy, Climate Change, and the Environment Strategy for Wales are available at <http://assembly/presidingoffice/mrs/briefings/environment-planning-e.htm>
For further information on any aspect of renewable energy, please contact:

Gareth Clubb, Members' Research Service on ext. 8983

gareth.clubb@cymru.gsi.gov.uk

ⁱ DTI, *Energy Trends*, September 2006,
<http://www.dti.gov.uk/files/file34201.pdf>

ⁱⁱ Welsh Assembly Government, *Technical Advice Note 8: Planning for Renewable Energy*, July 2005,
http://new.wales.gov.uk/docrepos/40382/4038231121/403821/40382/TAN_8/tan8-pages1-21-e.pdf?lang=en

ⁱⁱⁱ DTI, *Energy Trends*, December 2006,
<http://www.dti.gov.uk/files/file36183.pdf>

^{iv} DTI, *Energy Trends*, September 2006,
<http://www.dti.gov.uk/files/file34201.pdf>

^v DTI, *Energy White Paper 2003: Our Energy Future – Creating a Low Carbon Economy*, February 2003,
<http://www.dti.gov.uk/files/file10719.pdf>

^{vi} European Council, *Conclusions of the Presidency*, 8-9 March 2007,
<http://europa.eu/rapid/pressReleasesAction.do?reference=DOC/07/1&format=HTML&aged=0&language=EN&guiLanguage=en>

^{vii} European Commission, *Energy for the Future: Renewable Sources of Energy*, November 1997,
http://ec.europa.eu/energy/library/599fi_en.pdf

^{viii} Welsh Assembly Government, *Energy Wales: Route Map to a Clean, Low-Carbon and more Competitive Energy Future for Wales*, April 2005,
<http://new.wales.gov.uk/docrepos/40382/4038231141/40382112412/energyroutemap.pdf?lang=en>

^{ix} Welsh Assembly Government, *Technical Advice Note 8: Planning for Renewable Energy*, July 2005,
http://new.wales.gov.uk/docrepos/40382/4038231121/403821/40382/TAN_8/tan8-pages1-21-e.pdf?lang=en

^x Welsh Assembly Government, *Ministerial Interim Planning Policy Statement on Planning for Renewable Energy*, December 2005,
<http://new.wales.gov.uk/docrepos/40382/4038231121/403821/4038212/mipps1-e.pdf?lang=en>