Energy Generation in Wales 2018 in 5 minutes

A graphical summary of the Energy Generation in Wales 2018 report

Full report available at gov.wales
Introduction

The Energy Generation in Wales 2018 report sets out the current energy generation capacity of Wales, and analyses how it has changed over time.

This accompanying document summarises:

- Progress towards renewable energy targets
- Renewable energy generation in Wales
- Local authority area progress
- Local ownership stories

Reducing our reliance on fossil fuels and continuing to develop and support renewable energy, with local ownership, will help us achieve our low carbon vision and maximise the value to Wales.

Lesley Griffiths
Minister for Environment, Energy and Rural Affairs

Welsh electricity generation and consumption trends

Since 2006, energy consumption has fallen 15%. Electricity generation from nuclear and coal has reduced to almost zero, whereas natural gas and renewable generation has increased.
Progress towards target
Renewable energy sources generated enough electricity to meet half of Wales’ needs in 2018.

Target: By 2030, renewables in Wales to generate electricity equal to 70% of Wales’ consumption.

Progress: In 2018, the equivalent of 50% of Welsh electricity consumption was generated from Welsh renewables.

Generation and consumption trends

Target: 70% of electricity consumption from renewables in 2018.

Consumption: 50% in 2018

Electricity consumption and generation trends from 2006 to 2018:
- Electricity consumption: 14.8 TWh in 2018
- Renewable electricity generation: 7.4 TWh in 2018
Electricity generation in Wales

Wales is a net exporter of electricity, generating around twice as much electricity as it consumes.

Wales’ electricity generation mix

Electricity generation over time

2006

- Nuclear: 7.0 TWh
- Gas: 14.9 TWh
- Renewables: 1.6 TWh
- Coal: 8.9 TWh

2018

- Nuclear: 0.0 TWh
- Gas: 21.9 TWh
- Renewables: 7.4 TWh
- Coal: 0.4 TWh
Wind power made up over half of all renewable energy generation in 2018.

**Renewable energy generation mix**

- **Total:** 9.7 TWh
- **Offshore wind:** 23%
- **Onshore wind:** 29%
- **Solar PV:** 10%
- **Biomass electricity and CHP:** 8%
- **Hydro:** 4%
- **Others:** 4%

**Renewable heat:** 2.3 TWh
23% of total renewable energy

**Renewable electricity:** 7.4 TWh
77% of total renewable energy
Local ownership target

The Welsh Government has set a target for 1 GW (1,000 MW) of renewable energy capacity to be locally owned by 2030.

Progress towards target so far

**783 MW**
locally owned renewable energy capacity

**2018**

- **64,637 projects**
- **1,812 MWh generated**

Local ownership by capacity (MW)

- Housing association: 12
- Local business: 286
- Community: 38
- Farms and estates: 140
- Domestic: 263
- Other public sector: 29
- Local authority: 17

Legend:
- Heat
- Power
There are over 68,700 renewable heat and electricity projects installed across Wales.
Local stories

Brechfa Forest West wind farm
The community investment fund from this 55 MW wind farm is expected to be worth up to £11 million over 25 years.

Brenig wind farm
This 16-turbine, 38 MW wind farm was completed in 2018, with a £4 million fund for the local rural community.

Low carbon heat
This 173 kW water-source heat pump was the largest heat pump installed in Wales in 2018.

‘Battery @ PYC’
At 22 MW, this is the UK’s largest battery co-located with an onshore wind farm.

Radyr Weir hydro scheme
This scheme uses the current of the river Taff to power over 500 homes a year, and is owned by Cardiff Council.

Rhiwfelin hach farm
This turbine supplies 10% of the Royal Mint’s electricity demand, and is painted to resemble a giant daffodil.

The Energy Generation in Wales 2018 full report is available at [gov.wales](http://gov.wales)