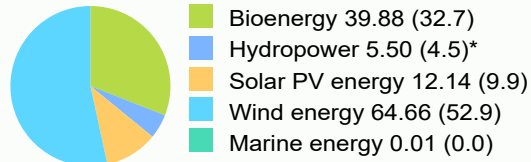


United Kingdom • Renewable energy • Hydrogen, Marine, Solar, Wind

Gross electricity generation from renewable sources by 2021, TWh (%)



Total: 122.18 (100)

Source: Renewable Energy Statistics 2023 © IRENA
* excluding pumped storage

Major offshore wind parks over 350 MW, MW:

- 1 Hornsea Project One, 1197.0*
- 2 Walney Extension, 659.0*
- 3 London Array Phase I, 630.0
- 4 Beatrice, 588.0
- 5 Gwynt y Mor, 576.0
- 6 Race Bank, 573.0
- 7 Greater Gabbard, 504.0
- 8 Dudgeon, 402.0
- 9 Rampion, 400.2*
- 10 West of Duddon Sands, 388.8
- 11 Walney 1-2, 367.2
- 12 Galloper, 353.0

* under construction

Major onshore wind parks over 140 MW, MW:

- 13 Whitelee, 539.0
- 14 Clyde Wind Park, 522.8
- 15 Kilgallioch (Arecleoch Phase 2), 239.0
- 16 Pen y Cymoedd, 228.0
- 17 Stronelairg, 228.0*
- 18 Crystal Rig 1-2-3, 214.3
- 19 Black Law, 187.6
- 20 Dorenell, 177.0*
- 21 Griffin, 156.4
- 22 Fallago Rig, 144.0

* under construction

Key Compressed Hydrogen Plants over 500 Nm³/hr:

- 1 Middlesbrough, Linde (BOC)
- 2 Llanwern, Air Products
- 3 St. Helens, Linde (BOC)
- 4 Margam, Linde (BOC)
- 5 Castleford, Linde (BOC)
- 6 Wilton, Air Products
- 7 Barry, Linde (BOC)
- 8 Purfleet, Air Products
- 9 Sandbach, Air Products

List of some largest electrolysis plants, power-to-gas, energy storage and gas into the natural gas grid projects, MW:

- 1 Aberdeen Hydrogen Bus Project, 1.0

Hydrogen pipelines, km:

- 1 Teesside, Linde, 35
- 2 Teesside, Air Products, 5

Underground hydrogen storage facility:

- 1 SABIC Yorkshire (Teesside)

Key hydrogen fuel cell plants over 1.0 MW, MW:

- 1 AECC Bucksburn, 1.4

High activity areas:

The most common solar GHI intensity is 3.0 - 3.3 kWh/m² per day, distributed in the southern part of country, along island's coastline with the English Channel.

The most common wind speed is over 9.75 m/s at 50 m are distributed in northwestern part of Scotland.

Avg wave power potential is 25 - 60 kW/m per year.

Sources: Energydata.info; Wikipedia.

Hydrogen fueling stations:

According to available data for March 2019, the United Kingdom had 18 operational hydrogen fueling stations.

Source: H2 Tools

Wave power plant, kW:

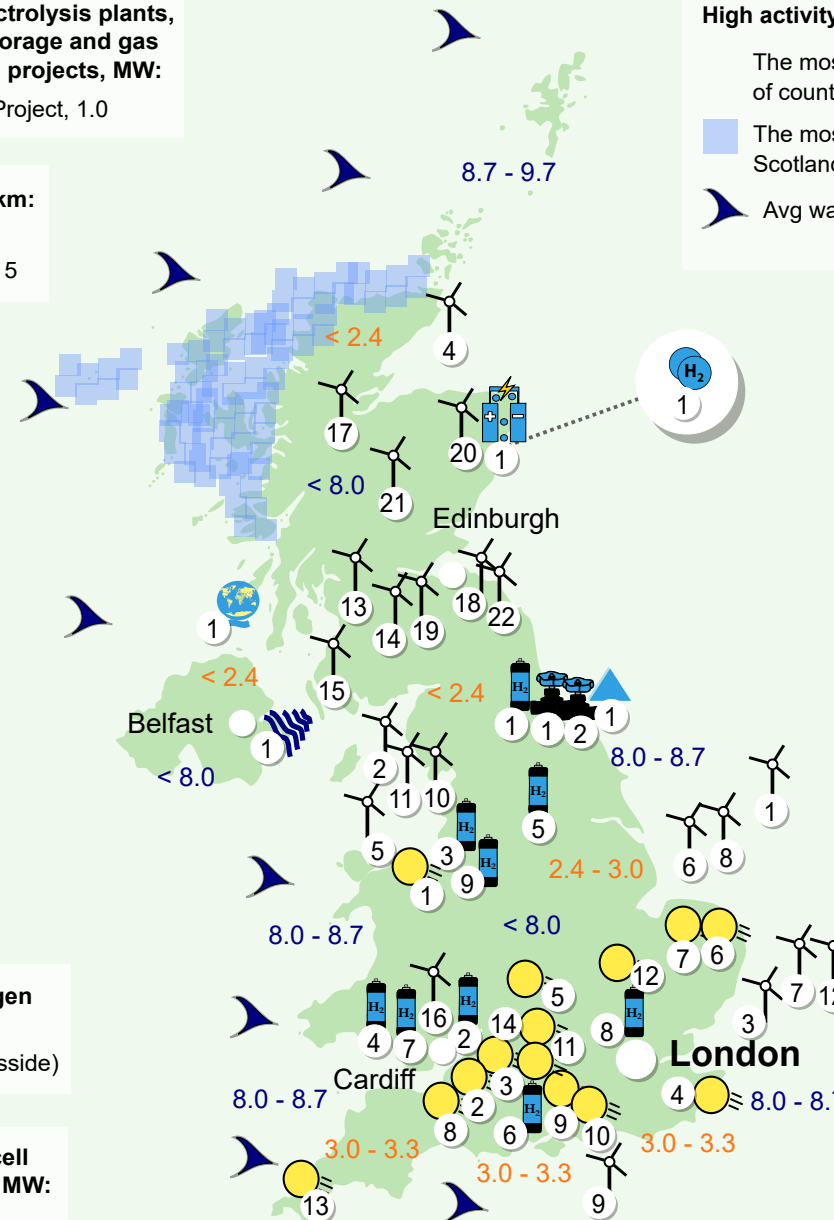
- 1 Islay LIMPET, 500

Tidal power plant, MW:

- 1 Strangford Lough SeaGen, 1.2

Solar PV power plants over 40 MWe, MWe:

- 1 Shotwick, 72.2
- 2 Bradenstoke (RAF Lyneham base), 69.8
- 3 Wroughton (Swindon), 60.0
- 4 Owls Hatch, 51.9
- 5 Drayton Manor Farm, 50.0
- 6 Scottow Moor, 49.9
- 7 West Raynham, 49.9
- 8 Sandridge, 49.6
- 9 Eveley, 49.3
- 10 Southwick Estate, 48.0
- 11 Landmead, 46.0
- 12 Vine Farm, 45.0
- 13 Canworthy Water, 40.7
- 14 Cowdown Solar Farm, 40.0



0.0 kWh/m²/d Global Horizontal Irradiation (GHI)
0.0 m/s Wind speed

