

# Britain hits historic clean energy milestone as zero carbon electricity outstrips fossil fuels in 2019



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2019 was the cleanest year on record for Britain as, for the first time, the amount of zero carbon power outstripped that from fossil fuels for a full twelve months.

This historic milestone comes as we enter the mid-point between 1990 and 2050 – the year in which the UK has committed to achieve at least a 100% reduction in emissions based on 1990 levels.

Data released by National Grid shows a combination of wind farms, solar and nuclear energy, alongside energy imported by subsea interconnectors, delivered 48.5% of Britain’s electricity in 2019 compared to 43% generated by fossil fuels. The remaining 8.5% was generated by biomass.

National Grid CEO John Pettigrew said: “As we enter a new decade, this truly is a historic moment and an opportunity to reflect on how much has been achieved.

“At National Grid, we know we have a critical role in the acceleration towards a cleaner future and are committed to playing our part in delivering a safe and secure energy system that works for all.”

Generation source	Coal + Other	Gas	Nuclear	Wind + Solar + Hydro	Biomass & Waste	Imports	Including Imports		
							Fossil fuels	Zero carbon	Biomass & Waste
1990	75.0%	0.1%	18.8%	2.3%	0.0%	3.8%	75.5%	24.4%	0.1%
2019	2.1%	38.4%	16.8%	26.5%	8.2%	8.0%	43.0%	48.5%	8.5%

\*Note actual figure is 0.02% rounded to 0.1%.

In December, National Grid set out plans to invest almost £10bn in the UK’s gas and electricity networks over five years, of which almost £1bn<sup>[1]</sup> has been ear-marked to enable the transition to Net Zero including investments in new equipment and technology to help the electricity system operator (ESO) to operate a Net Zero carbon electricity system by 2025. £85m has been allocated to support the decarbonisation of heat within the gas transmission network.

ENDS

[1] National Grid Electricity Transmission’s business plan 2021–26: £936m of expenditure over five years

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## Notes for editors

### Data assumptions

- 2019 figures are correct to 30<sup>th</sup> December 2019 using a combination of data from Elexon, Sheffield Solar, ENTSOe and National Grid's own analysis.
  - Total figures for fossil fuels, zero carbon, and biomass/waste (shown in red columns 8/9/10) include GB generation at a transmission level, embedded generation (distribution level) and imports.
- o Fossil fuels comprise coal, gas and 'other carbon' such as oil/diesel.
  - o Zero carbon comprises nuclear, wind, hydro, solar, storage and other renewable energy systems such as geothermal, wave and tidal.
  - o Biomass and waste are separated out as they are neither zero carbon nor fossil fuels.
- Imports are calculated across five connected countries – France, Belgium, Netherlands, Ireland and Northern Ireland – and categorised as zero carbon, fossil and biomass/ waste.
  - 1990 data taken from DUKES and the IEA. 'Coal & Other' comprises coal, oil and diesel generation.

Country	Energy Share (%)	Fossil fuels	Zero carbon	Biomass & Waste
France	47.5%	7.3%	91.8%	0.9%
Netherlands	24.2%	76.5%	16.8%	6.5%
Belgium	21.4%	30.9%	64.5%	4.6%
Northern Ireland	2.0%	43.6%	56.4%	0.0%
Ireland	5.0%	38.6%	61.4%	0.0%
Total	8.0%	31.4%	65.6%	3.0%

## Notes to Editors:

National Grid is pivotal to the energy systems in the UK and the north eastern United States. We aim to serve customers well and efficiently, supporting the communities in which we operate and making possible the energy systems of the future.

### National Grid in the UK:

- We own and operate the electricity transmission network in England and Wales, with day-to-day responsibility for balancing supply and demand. We also operate, but do not own, the Scottish networks. Our networks comprise approximately 7,200 kilometres (4,474 miles) of overhead line, 1,500 kilometres (932 miles) of underground cable and 342 substations.
- We own and operate the gas National Transmission System in Great Britain, with day-to-day responsibility for balancing supply and demand. Our network comprises approximately 7,660 kilometres (4,760 miles) of high-pressure pipe and 618 above-ground installations.
- As Great Britain's System Operator (SO) we make sure gas and electricity is transported safely and efficiently from where it is produced to where it is consumed. From April 2019, Electricity System Operator (ESO) is a new standalone business within National Grid, legally separate from all other parts of the National Grid Group. This will provide the right environment to deliver a balanced and impartial ESO that can realise real benefits for consumers as we transition to a more decentralised, decarbonised electricity system.
- Other UK activities mainly relate to businesses operating in competitive markets outside of our core regulated businesses; including interconnectors, gas metering activities and a liquefied natural gas (LNG) importation terminal – all of which are now part of National Grid Ventures. National Grid Property is responsible for the management, clean-up and disposal of surplus sites in the UK. Most of these are former gas works.

Find out more about the energy challenge and how National Grid is helping find solutions to some of the challenges we face at <https://www.nationalgrid.com/group/news>

National Grid undertakes no obligation to update any of the information contained in this release, which speaks only as at the date of this release, unless required by law or regulation.

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