

Onshore wind factsheet

November 2022



Background

- The UK has installed over [14.2GW of onshore wind capacity to date](#), supporting jobs and local economic growth.
- The [government's targets](#) for 95% low carbon electricity by 2030 and to fully decarbonise power by 2035 will require rapid growth in renewable power.
- The Climate Change Committee advises onshore wind capacity will need to [double to 30 gigawatts \(GW\) by 2050](#), but industry holds greater ambition and believes onshore wind can be doubled.
- Despite public support for onshore wind, the slow and fragmented planning system is acting as a barrier to rolling out a technology that is cheap, clean, quick to roll-out and has the potential to cut household energy bills.

Why is onshore wind blocked in England?

- Since a [change in policy](#) in 2015, the planning system in England intentionally restricts the development of new onshore wind.
- Onshore wind farms must have required consent to go ahead, with sites needing to be approved in plans established by residents with local authorities. Developers also must show that the proposal is located in areas designated for renewable energy in a local plan.
- Currently, [only 11% of local authorities](#) across England have designated areas for renewable developments in their plans, and the maximum installed capacity of wind farms granted planning permission between 2016-2021 is just 2.6% of those granted permission between 2009-2014.

What is the situation elsewhere?

- Onshore technology can be found across [115 countries worldwide](#) and new installations are expected to reach [80GW by the end of 2022](#).
- China and the US make up the primary drivers of onshore wind growth internationally, with China accounting for [30.7 GW in 2021 and the US 12.7 GW](#). Brazil (2.8 GW), Vietnam (2.6 GW) and Sweden (2.1 GW) make it into the top five onshore markets.
- [Within the UK](#), Scotland accounts for 80% of new onshore wind capacity in 2021, followed by 18% in Northern Ireland and 2% in Wales.

How quickly can it be deployed?

- Onshore wind can be built fast, [within months](#), and can quickly reduce the UK's dependence on gas for power. The UK still gets around [40% of its electricity from gas](#) power, when it could be using cheaper renewables instead. There is [5GW](#) of onshore wind currently awaiting planning approval, which could be fast-tracked to lower electricity bills this winter.

How cheap is it?

- Onshore wind is one of the lowest-cost, scalable electricity generation technologies in the UK. This year's Contracts for Difference (CfD) auction alone secured enough wind and solar

capacity to power [12.5 million homes](#), which will save billpayers an expected £58 a year. This makes onshore wind up to ten times cheaper than gas, [costing £42 for a unit of electricity](#) (a megawatt hour), compared to up to £539.59/MWh for gas on the wholesale market.

What is the economic potential?

- Onshore wind is already delivering job opportunities and remains Scotland's largest low carbon employer, providing nearly [9,000 jobs](#). More onshore wind development would support 27,000 jobs ([and GVA of £45 billion](#)). It also supports nearly [four times as many secure, skilled jobs in comparison to gas](#).
- Onshore wind employment can lift productivity throughout the UK, supporting an additional [£290 million of gross value added \(GVA\) per annum by 2035](#). Measured by GVA per worker, the national average stands at £54,000 per worker, but manufacturing and installation of onshore wind is estimated at £60,000 GVA per worker. Jobs in operation and maintenance of onshore wind sites are highly productive, at [£180,000 per worker](#).
- If 35GW of onshore wind are deployed by 2035, further economic benefits include potential to support 31,000 jobs and enable a £360 million export [industry](#).

What can the government do to support onshore wind?

- The UK government should make changes to the NPPF which currently acts as an effective veto on onshore wind in England. Footnote 54 of the [National Planning Policy Framework](#), which puts a block on onshore wind, should be removed and replaced with a proportionate and sensible system which allows appropriately sited projects to be developed in England. This can be done via secondary legislation.
- BEIS should also produce a [clean power plan](#) to reach 95% zero carbon power sector by 2030 and 100% zero carbon by 2035, with the target weaved into upcoming energy legislation.
- The plan should maximise the use of onshore wind, including expanding Pot 1 CfD GW capacity and funding.

How can onshore wind gain local support?

- Onshore wind is popular and most importantly this is true for people who live near them. [72%](#) of people who live within five miles of a wind farm support building more onshore wind farms. In March 2022, Octopus Energy launched a [new scheme](#) offering people who opted to live near a new onshore wind farm up to £350 off their energy bill, with thousands signing up within the first couple of days.
- Onshore wind developments deliver [local benefits](#) through community benefit funds, landowner payments supporting rural diversification, improvements to outdoor access and recreational facilities, habitat management plans to enhance local areas, local jobs, apprenticeships, skill training, business rates paid over the lifetime of the windfarm, inward investment in rural areas, and provision of [one of the cheapest forms of electricity](#).
- Some wind farms also offer a Local Electricity Discount Scheme (LEDS), for example RES offers a LEDS to 6,000 households through 20 wind farms and every home within a 3km radius of their [Wryde Croft Wind Farm](#) (near Peterborough) receives an annual £200 energy bill discount.

What do voters think?

1. [Polling](#) commissioned by RenewableUK shows overwhelming public support for building new wind farms and solar farms to tackle the cost of energy. 77% of the UK public think the new government should use new wind and solar farms to reduce electricity bills, and 76% support building renewable energy projects in their area.
2. Conservative voters back onshore wind developments, with 84% of those who backed the Tories at the last election urging government to use new wind and solar farms to cut electricity bills, and [81% of 2019 Conservative voters](#) supporting a renewable energy project in their area.
3. [64% of 2019 Conservative voters](#) think the new government should end the current block on onshore wind in England where it has local support. In contrast, only 16% think the block should remain.