

Impact of a Generators' Windfall Tax on Investment

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- The industry is investing more than £100bn over the course of this decade in new energy sources.
- The UK's electricity industry delivers around £83bn in economic activity through its supply chain and interaction with other sectors, invests over £10bn annually, and pays over £4bn in taxes to HMT.
- Power generation is responsible for almost 50,000 jobs, a number that will increase substantially over the coming years as we align our economy with Net Zero.
- Energy generation is a long term industry, with investment horizons that span decades. A windfall tax on generators could delay and increase the cost of these investments, at a time in which the UK needs to dramatically improve security of supply and rapidly expand the UK's low carbon infrastructure to provide clean, cheap, and domestically sourced electricity.
- **A windfall tax on generators would result in:**
 - **Potential lack of future investment in much needed energy infrastructure in the UK**
 - **Increased investment costs for major developers leading to higher energy bills**
 - **Prolonged reliance on expensive and volatile international gas prices**
 - **Fewer new jobs and skills across the country**
 - **Delays to critically important projects that enable our Net Zero goals**

Low-carbon generation lowers bills

- Wind and solar are now the cheapest form of electricity generation. They are considerably cheaper than expensive and volatile international gas.
- Industry has achieved rapid cost reductions through lowering the cost of capital, enabled by stable long-term policies, and investment in innovation throughout the supply chain.
- A windfall tax on generators would increase the cost of investment, with these costs passed on to consumers (for example, through higher Contracts for Difference bids).
- Through the Contracts for Difference mechanism, wind and solar generation is expected to pay back almost £600m to the system between October 2021 and April 2023 (ECIU) and will reduce household energy bills.

Reaching Net Zero relies on investment from generators

- The Committee on Climate Change estimates that to reach Net Zero, annual UK low-carbon investment will have to increase from around £10 billion in 2020 to around £50 billion by 2030, continuing at this level to 2050, with the majority of this coming from the private sector.
- A windfall tax on generators would jeopardise the UK's ability to build the low carbon infrastructure required to meet our legally binding Net Zero target.
- It would lead major developers to question the return on their investment at the exact moment that the UK requires significant volumes of capital to flow in the direction of clean energy generation.
- Reaching Net Zero will involve a huge expansion of clean electricity generation and electrification. Electricity demand is set to increase 56% by 2035, meaning a twofold challenge – the need for more electricity, and cleaner electricity. This will not happen without adequate investment.

The UK will not achieve energy security without massive investment in clean generation

- A windfall tax on generators would jeopardise the pace and scale of investment needed to rapidly transition away from expensive and volatile international gas prices.
- It is important to ensure that the UK is an attractive country to invest in: it's clear that a windfall tax on generators would compromise this and would deter potential investors. Without investment the UK remains reliant on international energy markets and exposed to external crises.
- With the price cap expected to rise by an estimated £800+ to £2800 in October, consumers are paying the price for the UK's reliance on volatile international gas.
- Targets in the British Energy Security Strategy - 50GW of offshore wind by 2030 (up from 10.5GW today) and 24GW of nuclear power by 2050 (up from around 7GW today) that were set by Government to ensure Security of Supply will not be met without significant investments in clean energy generation.

A windfall tax on generators would have unintended consequences.

- Following the Government's announcement that they were considering a windfall tax on generators, over £4bn has been wiped off the value of key electricity generators. This has a direct impact on the private sector's ability to invest in crucial new energy infrastructure.
- A windfall tax on generators would place more suppliers at risk of collapse given that some integrated power businesses have been able to offset losses from their retail operations through modest profits from generation. This would lead to higher household energy bills.

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Energy UK Members Investment Plans in the UK

Energy UK's generator and grid members have invested, and continue to invest, billions in the transformation of our energy system. A few examples of these significant investments are listed below:

Centrica

- Centrica is exploring options to repurpose Rough for hydrogen, which would require a £2bn investment in the Rough reservoir located offshore in Humberside, which has stored natural gas safely for over three decades. A repurposed Rough has the potential to provide around half of the UK's hydrogen storage requirements, putting us on track to meet the government's objective of decarbonising the UK's gas supplies.
- Repurposing Rough will create more than 4,000 jobs in the North-East and wider economy.
- Centrica is planning to invest £50m in jobs this year – including 500 customer facing UK roles.
- Centrica has also outlined plans to invest up to £100m annually on large scale solar / renewable projects up to 2025 in their People & Planet publication.

Drax

- As one of Europe's lowest carbon power generators, Drax generates enough reliable renewable electricity for five million UK homes, supporting thousands of jobs in the UK (almost 3,000 direct UK employees and 19,200 throughout the supply chain in 2019).
- Drax is in the middle of a £5bn investment program, with plans to expand energy storage at Cruachan by 2030 and develop bioenergy with carbon capture and storage (BECCS) at Drax Power Station.
- The Cruachan Expansion will increase pumping and generation capacity of the Cruachan pumped storage hydro facility in Scotland by 600MW. This will result in significant electricity system savings as a result of reducing the need for network reinforcement, enabling greater utilisation of renewables (reducing curtailment), providing a range of ancillary services at scale. In addition, the construction of Cruachan 2 could support 900 jobs directly and across the supply chain in rural Scotland over its 5-year construction period (2025-2030).
- Drax is also working on BECCS which will permanently remove 8m tonnes of CO₂ from the atmosphere each year by 2030 (negative emissions) whilst also generating renewable power.
- This one project alone will provide a significant proportion of the 53MtCO₂ of BECCS the CCC estimate we will need to reach net zero. **Without this BECCS project, Baringa have estimated that it will cost £13billion more to achieve the 5th Carbon Budget. Vivid economics estimate that around 10,300 jobs will be supported during the construction phase of the Drax BECCS project.**

EDF Energy

- EDF plans to invest over £50 billion in a wide range of projects that will support the UK's Net Zero Strategy, including investment in 15GW of wind, nuclear and solar power by 2035.
- EDF is leading the way in new nuclear in the UK; it is investing in the construction of Hinkley Point C in Somerset and is working with the government towards a Final Investment Decision on the project to build Sizewell C in Suffolk, which will be a replica of Hinkley Point C.
- These projects are investing heavily in people, providing opportunities for UK businesses and in developing skills for the future of the nuclear industry:
- Hinkley Point C has trained nearly 1,000 apprentices and Sizewell C will train a further 1,500.
- Nearly 74,000 people in Britain are expected to work on the Hinkley Point C project and a further 70,000 on Sizewell C.
- These projects are creating growth across the country; Hinkley Point C has spent over £4bn in the South West and Sizewell C expects to deliver £4.4 billion of investment in the East of England, £2.5 billion in the North of England and £900m in Wales.
- EDF Renewables is investing in wind and solar projects with a target of 5GW of renewable capacity by 2030. It is currently constructing the 450MW Neart na Gaoithe offshore wind farm in the Firth of Forth, with another 4 GW in the development pipeline, including Gwynt Glas, a 1GW floating offshore wind project in the Celtic Sea.
- EDF Renewables and Hynamics, EDF Group's hydrogen business, are developing plans for investment in the Tees Green project using green electricity from the Teesside Offshore Wind Farm and from a new solar farm, which EDF Renewables UK intends to construct near Redcar, to power an electrolyser to produce low carbon hydrogen to supply local businesses.

ESB

- **For almost 30 years, ESB has operated as a leading independent generator in the UK, with approximately £1bn invested in renewables, and further planned investment that will have the potential to power up to 1.8 million homes.**
- ESB has a number of existing wind farms across Fullbrook, Mynydd y Betws and West Durham, and has plans to build a number of additional wind farms which are capable of hosting up to 40 new wind turbines.

Ørsted

- **Over the last decade, Ørsted has invested over £10bn constructing their UK offshore wind farms and has established itself as a world-leader in renewable energy.**
- This is helping to transform coastal communities across the UK through investment in local facilities, the creation of high-skilled, long-term and well-paid jobs and apprenticeships, and the development of competitive, export-orientated local supply chains. Ørsted has helped support less prosperous communities across the UK – such as Grimsby and the Humber region, Liverpool, Brightlingsea and Barrow-in-Furness through the creation of long-term, high-skilled jobs – many of which centre around the construction, operation and maintenance of Ørsted's low carbon generation projects.
- In the Humber, Ørsted's pipeline of orders has supported the development of a £310 million blade manufacturing facility. The Hull based site now employs over 1,000 people and is delivering a multi-million-pound turbine order for Hornsea Two offshore wind farm.
- Across the UK, Ørsted are promoting Science, Technology, Engineering and Maths (STEM) related careers and partnering with national and regional training and educational bodies to develop their future workforce. For example, Ørsted have partnered with the Grimsby Institute in Grimsby and Furness College in Barrow-in-Furness to deliver a three-year wind turbine technician Apprenticeship Scheme. Ørsted are also supporting charities such as Teach First, focused on addressing educational inequality.
- At present, Ørsted have 7.5 GW of constructed wind capacity across 12 operational wind farms and an ambition to increase this to 15 GW by 2025.
- Recently, Ørsted have expanded its business, in investing in other forms of renewable energy / low-carbon projects – such as energy storage, as well as Green Hydrogen.

RWE

- **RWE intends to invest around £15 billion in new green technologies and infrastructure in the UK by 2030.**
- **RWE's Triton Knoll and Sofia offshore projects represent a collective investment of £5 billion in the UK's green energy infrastructure and will support a significant number of direct and indirect jobs in the Humber, North East and wider UK, throughout construction and longer-term operation.**
- RWE is progressing four extension projects in the UK, with a combined potential installed capacity of around 2.6GW. The company successfully bid for two new adjacent offshore sites on Dogger Bank with a potential total installed capacity of 3GW.
- RWE has reached a major milestone of investing £25 million over 20 years into communities that live near its UK projects. The investments, from Community Benefit Funds set up by RWE alongside its operational onshore and offshore wind farms, will invest an additional £70 million in support of local initiatives, throughout their lifetime.
- **Over the last decade, RWE and partners have invested well over £3 billion to deliver projects in Wales.** Major investments include 2.2 gigawatt Pembroke Power Station, £2bn Gwynt y Môr Offshore Wind Farm, and around £250m building onshore wind projects at Brechfa Forest West, Clocaenog Forest and Mynydd y Gwair.
- During construction, Gwynt y Môr created or secured over 700 jobs, with over £660m spent with UK based companies and over £90 million spent within Wales. Over £50m is expected to be spent at the Port of Mostyn (the Operations and Maintenance and Construction Support base) over the lifetime of the project. Since becoming operational, 100 long term, skilled jobs were created, with the wind farm typically investing around £8 million into the Welsh economy each year.
- Over their lifetime, renewable energy projects operated by RWE renewables will invest more than £15 million into Scottish communities.

Scottish Power

- **Scottish Power intend to invest more than £3.7 billion to double our renewable generation capacity across the UK between 2020-2025. This includes construction of around 2.1GW of installed capacity of innovative onshore wind, solar and battery storage projects.**
- Scottish Power are also targeting significant growth by 2030, with a further 3GW of onshore projects being progressed as part of the pipeline beyond 2025.
- The company's offshore pipeline includes the ~3 GW East Anglia Hub development which could power 2.7 million homes. The overall investment to support the Hub will be around £6 billion, increasing opportunities for the UK supply chain.
- Scottish Power have been awarded seabed rights for three offshore projects with a total capacity of 7GW. The new projects comprise of two large-scale floating offshore wind projects in partnership with Shell (2 GW and 3 GW) and one ScottishPower Renewables fixed-bottom project (2 GW). Taken together, the three projects more than treble our existing offshore wind pipeline, significantly boosting Scottish Power's position in the UK's offshore wind market.

SSE

- **SSE has said its investment in Great Britain's electricity infrastructure could total in excess of £24bn this decade, as part of its Net Zero Acceleration Programme ('NZAP'), providing a huge boost to the UK's clean energy ambitions.**
 - SSE's NZAP will deliver £12.5bn by 2026. This equates to around £7m a day to be spent on critical low-carbon infrastructure needed in the net zero transition. This includes:
 - A doubling of existing renewables net installed capacity to 8GW
 - A sustainable renewables development pipeline in excess of 15GW
 - Over 2.5 times more capital allocated to renewables growth
 - Growth in electricity networks, increasing Regulated Asset Value (RAV) to £9bn
 - SSE is also [creating 1,000 jobs a year to 2025](#) – as it supports the UK Government's new energy strategy and steps up efforts to deliver their Net Zero Acceleration Programme.
 - **Assuming a continued supportive policy environment, the Group's current investment plans will see it investing significantly more than it makes in profits over the next few years** in order to realise its growth opportunities and accelerate the transition to net zero. .
 - Independent analysis by PWC found SSE contributed £5.8bn to UK GDP in 2021/22, supporting more than 45,000 jobs both directly and indirectly. It also found that for every £1 earned by SSE in adjusted operating profit in 2021/22, it made an economic contribution of £4 to the combined UK and Irish economies.
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