

Briefing Priorities for the Energy Security Bill

July 2022

Background and summary

- Renewable energy can generate electricity at around a sixth of the cost of gas generation in the UK. Millions of people are currently being shielded from eye-watering whole gas prices by existing renewable capacity. For example, in 2021, renewables were responsible for 29 per cent of the electricity generation in the UK, displacing around £6.1 billion worth of gas, equivalent to £221 worth of gas per household.
- Cheap, clean power such as wind and solar is now very popular with the British public, with high levels of support for ambitious government action to expand clean energy infrastructure urgently to help keep people warm this winter. This reflects the fact that the cost of living crisis is now the defining political issue in the UK, with the energy price cap expected to reach nearly £3,000 in the autumn, up from £1,971 in April 2022 and from £1,277 before then.
- Rapidly building out clean energy could be a much needed ‘peace plan’ for the 21st century. The sooner the UK and its allies can reduce their reliance on Russian oil and gas, the safer and more secure we will be as a country and a continent. If the UK acts now, it could run an almost fully low carbon power system by 2030, bolstering efforts to counter the Russian war in Ukraine.
- The Energy Security Bill marks an unprecedented opportunity to ensure people on the frontline of the cost of living crisis can stay warm this winter, through doubling down on the UK’s renewable energy ambitions, bringing an end to reliance on the fossil fuels which are driving both the global economic crisis and climate change, and supporting global efforts to strengthen energy security.

For more background on the gas price crisis and what the UK government can do to protect consumers from gas high costs, please see the following Green Alliance briefing: [What does war in Ukraine mean for UK energy, and how can we limit reliance on Russian oil and gas?](#)

Policy priorities for the bill

The Energy Security Bill, announced in the 2022 Queen’s Speech, is the first energy bill since 2013. It provides an unrivalled opportunity to solidify the power sector’s transition to net zero carbon, locking in a secure and homegrown clean energy future that can shield consumers from high energy bills driven by volatile fossil gas prices. This new legislation to help us meet net zero, such as fast-tracking offshore wind development, must also work in harmony with wider environmental law to ensure nature’s recovery.



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Some elements announced for inclusion in the bill are positive steps towards decarbonising the power system, including the creation of a future system operator (FSO) and support for heat pumps. These will be vital to deliver the UK's commitment to a 95 per cent low carbon power sector by 2030. Alongside these measures, to ensure timely delivery of the 2035 decarbonisation target, boost the UK's energy security and address the cost of living crisis, the Energy Security Bill should:

1. Improve home energy efficiency

Improving the energy efficiency of the UK's housing stock is one of the quickest ways to reduce carbon emissions and reduce energy bills. The bill should include provisions that facilitate a future roadmap towards the introduction and tightening of minimum energy efficiency standards for all housing tenures, including owner occupiers. Future energy efficiency reporting requirements for mortgage lenders' portfolios would provide an incentive for them to improve efficiency over time through voluntary targets. The bill should continue to lock in the move away from costly to run gas boilers and towards increasingly cost competitive heat pumps. This should include enshrining a market-based mechanism for encouraging low carbon heating and the powers necessary to phase out fossil fuel heating systems.

2. Decouple gas from electricity prices

Clean energy is the cheapest source of electricity and [four to six times cheaper](#) than gas power. Despite this, the wholesale electricity price is still set by volatile, and now very expensive, global gas markets. With electricity set to be the defining source of power as the UK ends its reliance on fossil fuels, particularly in heating and transport, the energy market needs to be reformed so prices, especially for consumers, are accurately reflecting the much cheaper electricity provided by low carbon sources. The Review of Electricity Market Arrangements (REMA) process is vital for this and should have the delivery of cheap, clean electricity to consumers at its core.

3. Reform the capacity market

The capacity market ensures security of electricity supply by providing a payment for flexible future sources of power generation capacity. The capacity market round in 2021 sourced [78 per cent of capacity](#) from fossil fuel generation sources, locking them into the power sector for years to come. Reform will send important market signals for investment and innovation in new forms of zero carbon flexibility to balance a renewables-centred system. This should include a carbon intensity target and preferential access for low carbon resources.

4. Digitalise the energy system

As the power sector continues to move from a small number of large power stations to a distributed network of millions of connected devices that both use and provide electricity, the energy system needs to digitalise to ensure a co-ordinated, stable system. This will require expanded and automated data collection that facilitates a deeply digitalised system.

Demand flexibility, enabled by this digitalisation, will facilitate the smoothing of peak demand periods which will, in turn, reduce the overall size of the power sector. Digitally enabled demand flexibility will benefit consumers through lower energy prices: directly, as automated timing of energy use allows consumers to take advantage of times of lower electricity prices; and, indirectly, through a smaller, and lower cost, power sector.

The government should implement and build on the [recommendations](#) of the Energy Data and Digitalisation task forces to create a digitally optimised net zero energy system. (see [further information and recommendations](#)) Alongside this, the government should create a distribution system operation (DSO) function to ensure that local networks facilitate, rather than hinder, the transition to a digitalised energy system.

5. Give Ofgem a net zero statutory duty

Including a specific duty on Ofgem, to promote and prioritise the government's net zero carbon goal, will ensure that this receives appropriate consideration when the regulator seeks to balance Ofgem's competing priorities. A specific net zero duty can act in conjunction with its duty to protect the interests of consumers, as a renewable centred power system is projected to be up to 19 per cent cheaper than the current system (pre-gas price spike), according to modelling by [Imperial College London](#). The current network charging system penalises renewables projects situated further from demand; yet planning restrictions do not allow renewables to be sited close to customers. This needs to change to avoid creating perverse incentives to generate power from gas, rather than renewables.

Other important non-legislative measures

The Energy Security Bill is only part of the picture, and many non-legislative measures will be required to decarbonise the power system. To complement the bill, the government should:

1. Produce a Clean Power Plan

Measures in the Energy Security Bill should be accompanied by a Clean Power Plan, setting out a roadmap to deliver a 95 per cent zero carbon power sector by 2030 and a fully decarbonised power sector by 2035. The targets are in place, now a plan needs to deliver on them. In addition to the expansion of renewable capacity and the Review of Electricity Market Arrangements (REMA), to ensure the provision of new forms of zero carbon power announced in the British Energy Security Strategy, this plan should make clear how other policies supporting carbon capture and storage (CCS) and electricity storage will fit with future energy needs. This plan must also set out how new energy infrastructure will work in harmony with nature by supporting, not hindering, the delivery of the targets in the Environment Act.

2. Deploy renewables at speed and scale

- Ambitious renewables targets

Deploying renewables at speed and scale is the quickest and cheapest way to decarbonise the power sector and reduce the cost of electricity bills for households and businesses. It is a no regret option. Near term actions should include reform of onshore wind planning restrictions; committing to a co-ordinated and integrated offshore transmission network; targets of at least 50GW of offshore wind, around 35GW of onshore wind and 45GW of solar by 2030, with a strategy to achieve these targets based on the amount of capacity required via annual contracts for difference auctions; and a supportive and facilitative framework, such as that in the Local Electricity Bill, to allow community energy and heat projects to rapidly develop

- Unblock onshore wind

Onshore wind is popular, it has [80 per cent public support](#). Reforming the planning framework for onshore wind will enable the deployment of the cheapest form of renewable power. Reform of the planning system that has constrained its deployment since 2015 is a key component of meeting the 2035 target and reducing the energy costs for households and businesses. 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.

- A co-ordinated offshore grid

An integrated and co-ordinated offshore transmission network would speed up the rate of deployment of offshore wind, reduce system costs and minimise infrastructure needs including onshore landing points. The [National Grid Energy Systems Operator](#) warns that the later work begins on integrating the offshore transmission network, the smaller the benefits will be and the greater the risk of delay in meeting the government's offshore wind target. The postponement of the government's consultation response to the [offshore transmission network review](#) risks exacerbating this. National Grid ESO estimates that an integrated transmission network could deliver savings to consumers of £3 billion for projects from 2030.

An integrated and co-ordinated offshore transmission network should be coupled with co-ordinated marine spatial planning as part of a strategic plan. By considering environmental factors on a large scale basis, offshore renewables (wind, tidal and wave) deployment can be accelerated by removing the need for bespoke development focused spatial planning, while ensuring both the appropriate siting of developments and protection of marine habitats. For example, there should be a presumption against development in Marine Protected Areas.

- Support for new clean firm and clean flexible technologies

The government should seek to guarantee that the UK's electricity supply is decarbonised only via lower cost and no regret routes. For example, seeking to rely on gas - which costs six times more than onshore wind - with the additional expense of

CCS, risks locking consumers into long term high prices and additional emissions, should CCS not be developed as planned or fail to be 100 per cent effective, as is likely. New clean flexible technologies will be required in a decarbonised system, but unproven technologies will not deliver without regulation or deployment support.

3. Provide adequate financial and non-financial support for households

To ensure every home has minimum energy efficiency standards in a way which is fair and affordable, the government must provide support. This includes providing more public funding to support those on the lowest incomes to afford the upfront costs of retrofit (for example, by expanding the Social Housing Decarbonisation Fund and Homes Upgrade Grant), as well as providing new support for those on low and middle incomes who are not currently eligible for nationwide fuel poverty schemes. Additional non-financial support is needed too, including nationwide advice and support services; and supercharging supply chains by supporting jobs and training opportunities in energy efficiency installation.

4. Empower regional and local authorities

Local and regional authorities have been clearly recognised as a missing link in the delivery of climate objectives in the power sector and beyond (see the [CCC](#) and [NAO](#) reports). The Department for Business, Energy and Industrial Strategy (BEIS) and the Department for Levelling Up, Housing and Communities (DLUHC) should be required to work together on the development and implementation of a legislative framework that will empower local government to act in line with the net zero carbon delivery goals.

The framework should combine new planning responsibilities with adequate financial and technical support from central government. Combined authorities and energy networks should be required to work with local authorities on making sure that local plans are consistent with regional and national infrastructure. There should be clear guidance from Ofgem about how energy network providers should engage with local authorities about their decarbonisation plans under the price control process ([RIIO2](#)).

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