

Research Briefing

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Nuclear Energy (Financing) Bill 2021-22

Summary

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Summary

[The Nuclear Energy \(Financing\) Bill](#) aims to provide for a new model for financing new nuclear power stations in the UK.

The Bill creates [a framework for a Regulated Asset Base \(RAB\) model](#) to be used. The RAB model is expected to allow private investors, such as pension funds and insurers, to finance new nuclear projects, and reduce reliance on overseas investors. New nuclear power stations financed through the RAB would be funded by a charge on electricity suppliers, who are expected to pass the cost on to consumers.

The Bill was introduced in the House of Commons and received first reading on 26 October 2021. Second reading took place on 3 November 2021. Committee stage took place over six sittings between 16 and 25 November 2021. Report stage is expected to take place on 10 January 2022.

Alongside the Bill, the Government published a series of documents related to it:

- [Nuclear Energy \(Financing\) Bill Explanatory Notes \(PDF, 504 KB\)](#)
- [Delegated Powers Memorandum \(PDF, 498 KB\)](#)
- [Impact Assessment \(PDF, 1,912 KB\)](#)

Nuclear in the UK

The UK has 13 nuclear reactors at six plants which are able to supply about 20% of UK electricity demand. Most of these reactors are due to reach the end of their operating lives and be shut down before 2030.

New reactors are proposed at different sites in the UK but funding these large construction projects has proved challenging in recent years. In 2016, Hinkley Point C power station was granted final approval for two reactors. The project is supported by [a Contract for Difference \(CfD\) agreement](#), and there are concerns this doesn't offer value for money for taxpayers.

Government policy is to use new funding mechanisms

Current policy, as outlined in the December 2020 [Energy White Paper](#) is that the Government aims to bring at least one large scale nuclear project to the

point of Final Investment Decision (FID) by the end of this Parliament, subject to it demonstrating value for money.

There is speculation that the RAB model will [help the Government take forward the Sizewell C project](#) and change the project's ownership structure; it is currently led by EDF with a 20% stake held by China's CGN for the development stage.

In July 2019, the Government consulted on a new [Regulated Asset Base model](#), for funding nuclear power, which has been used for other infrastructure projects. The Government responded to the results of the consultation in December 2020 and this Bill provides for it to be potentially used for future nuclear projects.

What the Bill does

The Bill allows for eligible nuclear generation companies to be given a right to a regulated revenue stream during the construction, commissioning, and operation of a new nuclear project.

The Bill does this by:

- Allowing for the **Secretary of State to 'designate'** an eligible nuclear company to receive the benefit of the RAB special licence conditions.
- Allowing the Secretary of State to **regulate for revenue collection contracts**, which will be used to fund a nuclear company. Payments will be managed by a 'revenue collection counterparty'. Projects will be paid an 'allowed revenue' which is broadly the agreed capital cost of a project along with other relevant costs. Payments will be made by electricity supply companies who are expected to pass the cost on to consumers. Costs will start to be charged to consumers during construction, based on the allowed revenue due for the period. During operation the cost will be the allowed revenue due, minus the value of selling the energy generated.
- Creating a **Special Administration Regime**, modelled on that already in place in other parts of the energy industry. If a generator with a RAB contract becomes insolvent (which the Government considers very unlikely), the Government can apply for a court order to appoint a special administrator to manage that generator and the plant. They would have the objectives of maintaining (or restarting) energy generation and rescuing the generator.
- **Amending the Energy Act 2008** in relation to funded decommissioning programmes. This aims to clarify how decommissioning programmes would apply to certain finance sources in nuclear projects.

The Bill does not cover the actual investment decision for a specific project, the level of expenditure and payments, provisions to manage risk and overall value for money. The Final Investment Decision (FID) would be made after designation and before any final licence amendments; following this the revenue collection contract will be made.

According to the impact assessment, the Government expects to 'designate' a project at Royal Assent of the Bill and then move to modify the licence conditions in quarter four of 2022. The assessment also compares the RAB model against the CfD model, showing that it is expected to reduce the cost of a future nuclear project.

Reaction to the Bill

The energy industry and investors broadly support the new model for funding nuclear power generation. From a consumer perspective, there are concerns that construction cost overruns will need to be met by consumers, and that project costs will need to be met before generation starts. This briefing does not consider wider views on the benefits and drawbacks of nuclear power.

Territorial extent

Energy is generally a reserved matter. Most of the Bill (parts 1, 2 and 3) extend and apply to England, Wales and Scotland.

Northern Ireland does not share the energy infrastructure of Great Britain and is therefore not included in provisions related to new nuclear power funding.

The provisions relating to funding decommissioning programmes apply and extend to England, Wales and Northern Ireland.

1

Background

1.1

Nuclear power in the UK up to 2021

How is nuclear power generated?

Civil nuclear power technology has been developed and refined since the world's first civil nuclear power plant was opened at Calder Hall in Cumbria in 1956.¹

The basic process for generating electricity, however, remains the same: the reactors in nuclear power stations enable a controlled chain reaction to occur, resulting from the splitting of isotopes of uranium, in a process known as nuclear fission. The energy generated as heat during fission warms water in a boiler to create steam.

As in conventional gas power stations, the steam is led to a turbine where its expansion pushes the blades, rotating a generator in a magnetic field to produce electricity in alternating current. The process does not emit greenhouse gases, though there are emissions associated with the construction of nuclear power plants.²

The process does create nuclear waste which is problematic to deal with, while nuclear projects often raise wider environmental and local concerns.

UK nuclear power plants

Following the opening of Calder Hall, a further 17 civil nuclear plants came online in the UK between the 1950s and 1990s, with the most recent – Sizewell B in Suffolk – opening in 1995.

The Department for Business, Energy and Industrial Strategy (BEIS) reports that, since 1994, the rate of nuclear plant closures “has outstripped openings and capacity has fallen”, with Hinkley Point C (under construction) currently the only approved nuclear power station with an operating date beyond 2035.³

¹ Calder Hall was a dual-purpose nuclear power plant which supplied the first nuclear power for the National Grid (in addition to producing plutonium for military purposes).

² [How nuclear energy can help make all UK electricity green by 2035](#), The Conversation, 6 October 2021

³ BEIS, [Special feature – Nuclear Capacity in the UK](#), 2016

Today the UK has 13 reactors at six plants⁴ which can supply about 20% of UK electricity demand, although in 2020 they generated 15% of total electricity output (see page 12). Most of these reactors are due to reach the end of their operating lives and be shut down before 2030 (following some life extensions) as the table below shows.⁵

| Existing reactors in the UK | | | | |
|-----------------------------|-----------------------------------|-----------------------------|-------------|-------------------|
| Location | Reactor type | Capacity (MWe) ⁶ | First power | Expected shutdown |
| Hartlepool | Advanced gas-cooled Reactor (AGR) | 595 & 585 | 1983 & 1984 | 2024 |
| Heysham | Advanced gas-cooled Reactor (AGR) | 580 & 575 | 1983 & 1984 | 2024 |
| Heysham II | Advanced gas-cooled Reactor (AGR) | 2 x 610 | 1988 | 2030 |
| Hinkley Point (B) | Advanced gas-cooled Reactor (AGR) | 475 & 470 | 1976 | 2023 |
| Hunterston (B) | Advanced gas-cooled Reactor (AGR) | 475 & 485 | 1976 & 1977 | 2023 |
| Torness | Advanced gas-cooled Reactor (AGR) | 590 & 595 | 1988 & 1999 | 2030 |
| Sizewell (B) | Pressurised Water Reactor (PWR) | 1198 | 1995 | 2035 |

New reactors are proposed at six different sites and are at various stages of development.⁷ The sites are:

- Hinkley Point, Somerset⁸
- Sizewell, Suffolk⁹
- Bradwell, Essex¹⁰
- Moorside, Cumbria¹¹
- Wylfa, Anglesey, Wales¹²

⁴ Not all reactors are operating at all times due to [planned shutdowns](#).

⁵ All information in the table is from World Nuclear Association, [Nuclear Power in the United Kingdom](#), August 2021

⁶ Unit of power – megawatt equivalent.

⁷ Gov.uk, [Realising the vision for a new fleet of nuclear power stations](#), 20 April 2016

⁸ Office for Nuclear Regulation, [Hinkley Point C](#), June 2021

⁹ Office for Nuclear Regulation, [Sizewell C](#), September 2021

¹⁰ Maldon District Council, [Proposed Bradwell Nuclear Power Station](#), not dated

¹¹ Office for Nuclear Regulation, [Moorside](#), April 2021

¹² [Wylfa: Talks on new Anglesey nuclear plant proposals](#), BBC News Online, 23 September 2021; Office for Nuclear Regulation, [Wylfa Newydd](#), April 2021

- Oldbury, Gloucestershire¹³

Hinkley Point C

Hinkley Point C was granted final approval in 2016 for two reactors and is currently being built. It is the first nuclear power plant under construction in the UK for 25 years.

There are also early-stage plans to site ‘small modular reactors’ on sites that are being decommissioned. The Financial Times, for example, reported that the Welsh Government is examining the “economic benefits” of small-scale reactors at Trawsfynydd in Snowdonia National Park in north Wales, where a Magnox nuclear reactor is currently being decommissioned.¹⁴

Numerous factors have contributed to a decline in nuclear construction, including:

- The upfront cost of nuclear power can be more expensive than other sources, meaning subsidies or long contract settlements to guarantee income returns are needed.¹⁵
- The meltdown of Fukushima in 2011 contributed to weakening global public support for nuclear power,¹⁶ and a new series of safety measures¹⁷ that added to costs and timescales.
- The accumulation of nuclear waste continues to draw criticism because of a lack of disposal solutions.¹⁸ Some point to renewables such as wind and solar as a cleaner alternative.¹⁹
- Nuclear power is a politically controversial energy source. For example, the Scottish National Party and Green Party do not support nuclear power, while the Conservatives and Labour do.²⁰

Some commentators have questioned the value for money of nuclear power, particularly the Hinkley C deal²¹, following a fall in the cost of renewables such as offshore wind.²² In 2017, the National Audit Office (NAO) concluded that the Government’s deal for Hinkley Point C had “locked consumers into a risky and expensive project with uncertain strategic and economic benefits.” The NAO added:

¹³ Though Horizon Nuclear Power [stated](#) in early 2021 that it was no longer looking to develop the Oldbury site for large scale new nuclear, it is being considered as a potential site for a small modular reactor, see [Wylfa, Bradwell and Oldbury among 18 sites lined up for small nuclear reactors](#), New Civil Engineer, 30 September 2021

¹⁴ [Wales advances its plans for small nuclear plants](#), Financial Times, 25 August 2021

¹⁵ National Audit Office, [Hinkley Point C](#), 23 June 2017

¹⁶ Ed Crooks, [Public scepticism could turn off the nuclear reactors](#), Financial Times, 23 November 2014

¹⁷ [IAEA States back post-Fukushima nuclear safety plan](#), Reuters, 22 September 2011

¹⁸ Rob Broomby, [UK’s plutonium stockpile dilemma](#), BBC, 24 February 2013

¹⁹ [Nuclear power is part of the problem](#), Greenpeace, 1 July 2016

²⁰ Simon Evans, [Election 2019: What the manifestos say on energy and climate change](#), Carbon Brief, 22 November 2019

²¹ Roger Harrabin, [Offshore wind power cheaper than new nuclear](#), BBC, 11 September 2017

²² Gov.uk, [Contracts for Difference \(CFD\) Third Allocation Round Results](#), 20 September 2019

“The government’s case for the project has weakened since it agreed key commercial terms on the deal in 2013. Delays have pushed back the nuclear power plant’s construction, and the expected cost of top-up payments under the Hinkley Point C’s contract for difference has increased from £6 billion to £30 billion.”²³

The BBC reported in September 2021, however, that rising electricity prices had improved Hinkley C’s value for money.²⁴

Views on nuclear energy

Data from the Government’s Energy and Climate Change Public Attitudes Tracker (collected in the UK in March 2021) found that, when asked whether they supported nuclear energy, 34% of respondents answered neutrally, 38% said they supported the prospect, and 17% opposed it.²⁵

Supporters of nuclear power say it can provide reliable, baseload power,^{26 27} bolster energy security,²⁸ provide industrial or domestic heat²⁹ and potentially reduce the legacy of nuclear waste produced by reactors and weapons through re-use as fuel.³⁰ Nuclear power is also a low-carbon power source, as the fission process produces no greenhouse gas emissions. The Intergovernmental Panel on Climate Change (IPCC) estimated (by combining reviews) that the average full lifecycle emissions of nuclear are below those of all fossil fuels and some renewables.³¹

Successive Governments have supported nuclear power.³² The current Government recently expressed support for new nuclear in its November 2020 [Ten Point Plan for a Green Industrial Revolution](#) and its subsequent [Energy White Paper](#).

²³ National Audit Office, [Hinkley Point C](#), 23 June 2017

²⁴ [Hinkley nuclear power station on track for 2026 opening](#), BBC News, 29 September 2021

²⁵ 11% answered “Don’t know/no opinion”. BEIS, [Public Attitudes Tracker \(March 2021, Wave 37, UK\)](#), 13 May 2021, p35

²⁶ Baseload is the permanent minimum load that a power system is required to deliver. Historically baseload has been supplied by fossil fuels and nuclear which are sometimes described as “continuous power” (though all generators are prone to outages). For more information see the Library briefing paper on [Electricity Grids](#) (January 2019).

²⁷ Nuclear Energy Institute, [Nuclear Energy’s Unmatched Reliability](#), 22 June 2014

²⁸ Nuclear Energy Agency, [The security of energy supply and the contribution of nuclear energy](#), 2010

²⁹ International Atomic Energy Agency, [Industrial Applications and Nuclear Cogeneration](#) [accessed July 2020]

³⁰ World Nuclear Association, [Military Warheads as a source of nuclear fuel](#), February 2017

³¹ IPCC, [Working Group III Contribution to the IPCC Fifth Assessment Report, Annex III- Technology Specific Cost and Performance Parameters](#), 2014, Table A.11.2 (p. 1335) and IPCC, [Renewable Energy Sources and Climate Change Mitigation. Summary for policy makers and technical summary](#), 2012, Figure SPM.8 (p.19) and Table A.II.4 (p.190)

³² Deborah Summers and Andrew Sparrow, [Gordon Brown unveils economic measures to prepare UK for downturn](#), The Guardian, 19 December 2008, Gov.uk, [Long-term Nuclear Energy Strategy](#), 26 March 2013, Gov.uk, [Realising the vision of a new fleet of nuclear power stations](#), 20 April 2016, Our Plan, [Conservative Manifesto](#) 2019

Notably, the Government stated in the Energy White Paper that it is aiming to bring at least one large scale nuclear project to the point of “Final Investment Decision” by the end of the current Parliament.

The current and previous Conservative governments have also been supportive of nuclear innovation, such as small modular reactors, fast reactors, molten salt reactors and other Generation IV designs and have committed to investing in [advanced nuclear technologies](#) (see section 1.3 below).³³

Decarbonisation targets

Reactor designs, or nuclear generations have changed over time; from advanced gas cooled reactors, to pressurised water reactors, to European pressurised reactors (eg Hinkley C) and new advanced designs known as Generation III (see Box 1).

Box 1: Nuclear generations

Generation is a term used to group types of nuclear reactors based on how advanced they are. Generation I includes Magnox reactors, Generation II describes the reactors in the UK’s current fleet, and Generation III includes the European Pressurised Reactor (Hinkley Point C), the AP100 and ABWR (more advanced versions of these reactors are known as Generation III+).

Generation IV reactors are currently mostly in a research phase and may have advanced safety, efficiency, fuel and waste features.

The Government also has a series of decarbonisation targets; in June 2019, the May Government amended the [Climate Change Act 2008](#) to include a new net zero greenhouse gas emissions target by 2050, relative to 1990 levels (see section 1.3 below).³⁴

As energy supply is decarbonised, the Government needs to ensure there is sufficient supply on an electricity grid which includes more intermittent renewables. Though batteries, demand side response and smart grids will help balance the new energy system,³⁵ some policy makers argue that nuclear power should also be part of a diverse future mix of power sources.³⁶

More detail on nuclear policy in the UK can be found in Commons Library briefing on [New Nuclear Power](#) (February 2021).

³³ BEIS, [Funding for nuclear innovation](#), updated July 2020; BEIS, [Policy paper: Advanced Nuclear Technologies](#), updated 11 May 2021

³⁴ Commons Library, [Legislating for net zero](#), 27 June 2019

³⁵ For more information and commentary, see the Library briefing paper on [Electricity grids](#), January 2019

³⁶ HL Deb 26 January 2017 vol 778 [c779](#)

1.2

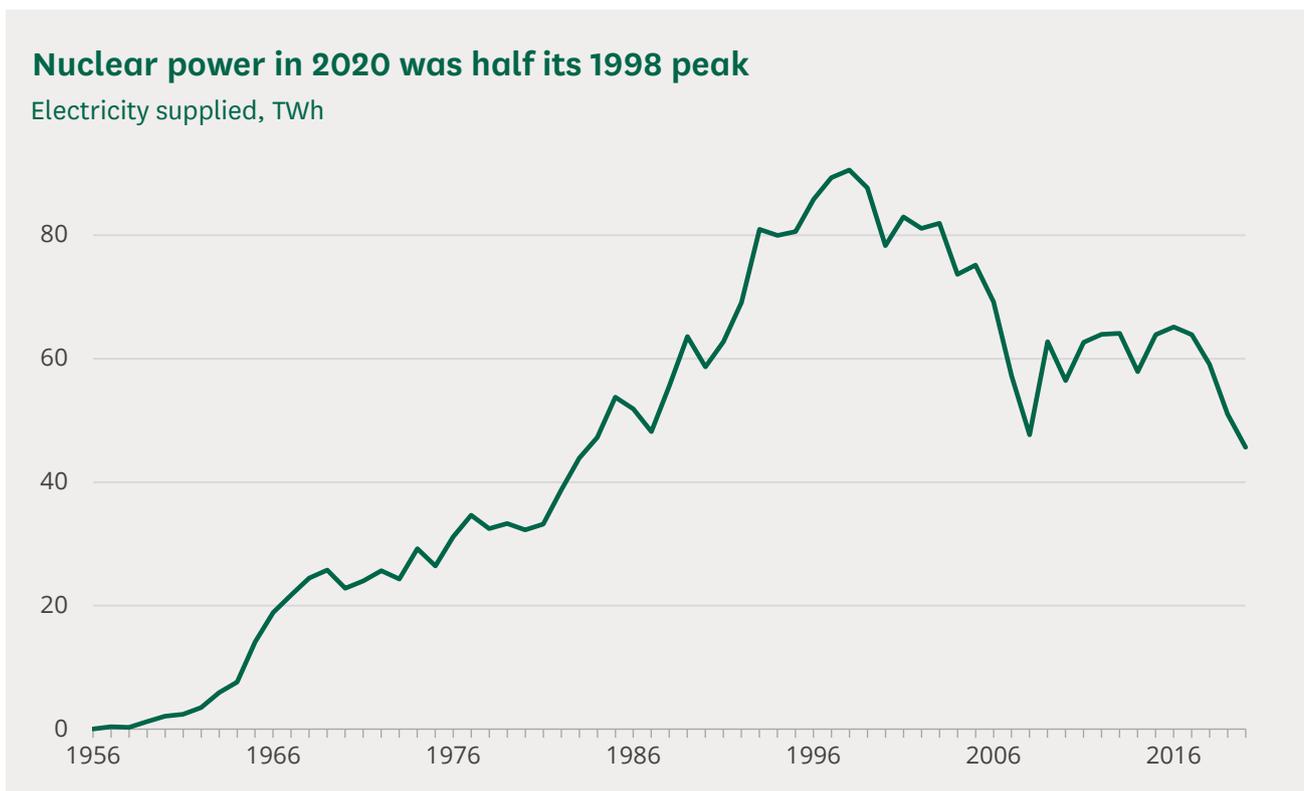
Nuclear power statistics

UK

In 2020 the UK's nuclear power stations generated 46 terawatt hours (TWh) of electricity. This was just over 15% of the UK's gross electricity generation in 2020. The following chart shows that this was the lowest level since 1983 and around half its 1998 peak of 91 TWh.

Nuclear output has fallen over time because of the closure of stations. Generation can be particularly low in individual years if there are large numbers of 'outages' when a reactor is temporarily shut down.

The trend in the percentage indicator is very similar to the total output shown in the following chart. The peak was in the mid-1990s when nuclear produced more than 25% of UK's power.

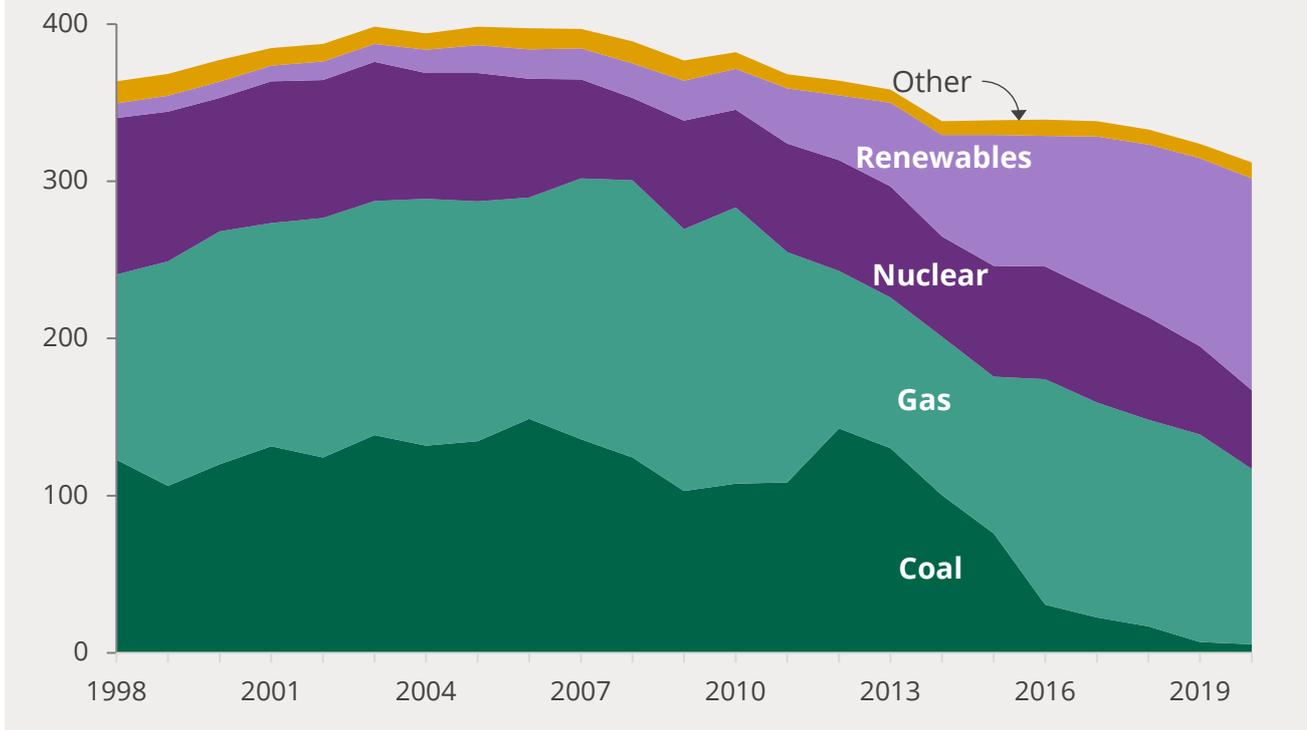


Source: [Digest of UK energy Statistics, 2021](#) (and earlier), BEIS (Table 5.1.3)

The next chart looks at more recent data on the UK's generation mix. It shows that renewables have expanded rapidly over the past decade, overtaking nuclear generation in 2014 and gas in 2020. Low carbon generation (nuclear and renewables) made up 59% of the total in 2020.

Renewables and gas replace coal generation over the last decade

UK generation by type of fuel (TWh)



Source: [Digest of UK energy Statistics](#), BEIS (Table 5.6)

UK projections

The latest official energy projections were published in 2020 and assumed that 3.3 GW of new nuclear capacity would come online in the mid-2020s, with a similar amount starting in the early 2030s and the mid-late 2030s.

This total of 10 GW of new capacity would eventually more than make up for the closure of existing reactors. In the 'reference scenario'³⁷ nuclear generation falls until the mid-2020s then gradually increases, reaching more than 60 TWh in the mid-2030s. It makes up just over 20% of electricity supply in the late 2030s.

Longer term projections for the power sector, consistent with net zero by 2050, put the total new nuclear capacity up to 2050 at 20-30 GW.³⁸ The [Climate Change Committee's](#) 'Balanced Net Zero Pathway' in its Sixth Carbon Budget has broadly similar levels of nuclear generation up to the mid-2030s.³⁹

³⁷ Central assumptions of fossil fuel prices and economic growth and all existing and planned policies (at the time)

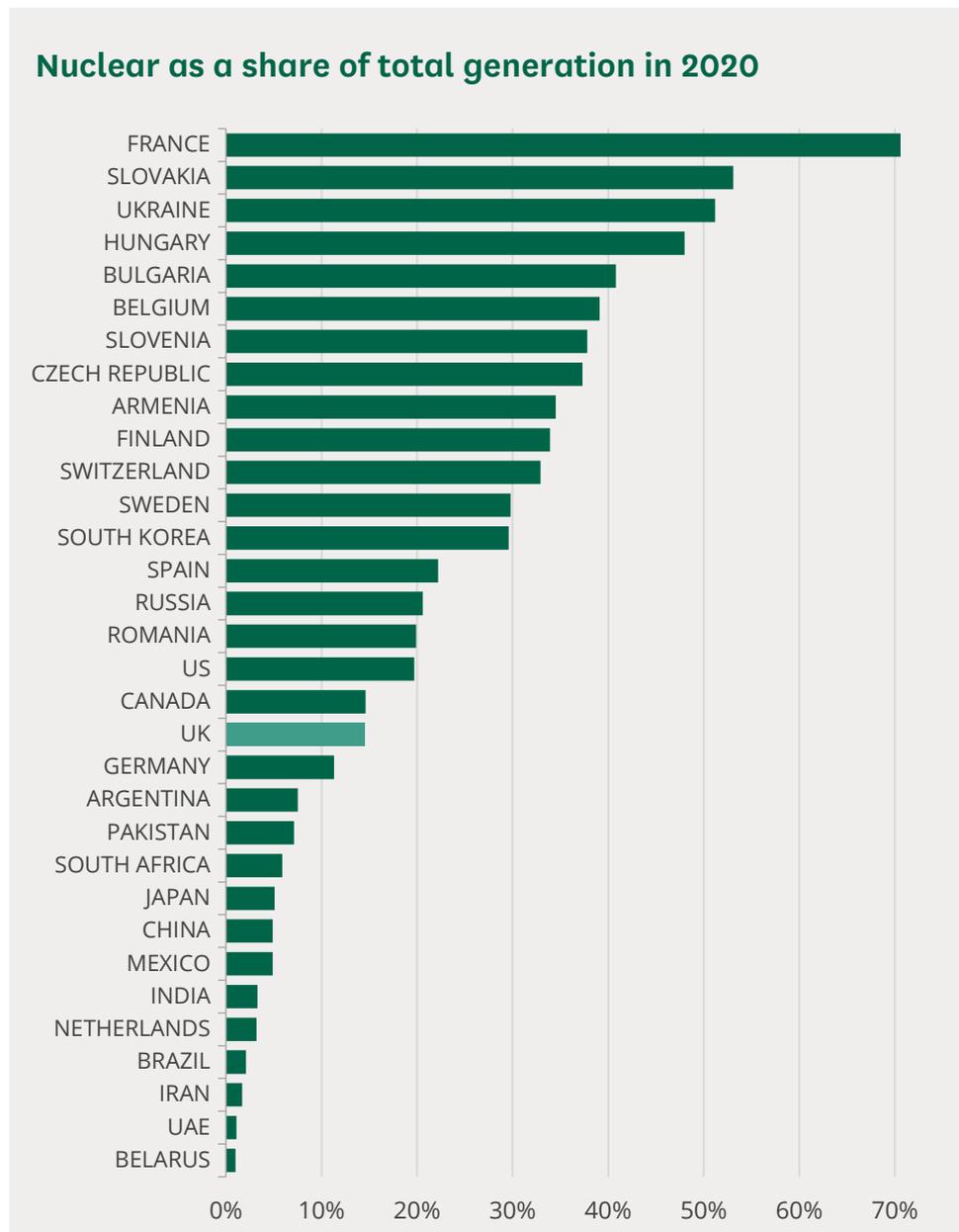
³⁸ BEIS, [Updated energy and emissions projections: 2019](#)

³⁹ Committee on Climate Change, [The Sixth Carbon Budget - Methodology Report](#), 9 December 2020

Nuclear power around the world

Thirty-two countries around the world have nuclear power. The US has the most reactors with 93, followed by France and China with 56 and 52 respectively. The UK's 13 puts it tenth highest.

The following chart compares the proportion of generation from nuclear power in countries where it is available.



Source: IAEA [Power Reactor Information System](#) (PRIS)

At the start of 2022, there were 51 nuclear reactors under construction around the world, including the two at Hinkley Point C. The largest number being built were in China with 13, followed by India with six.⁴⁰

⁴⁰ IAEA, [Power Reactor Information System](#) (PRIS)

At the end of 2020 there were 67 reactors planned for construction across eight different countries. 29 of these were in China. Russia had the next highest number with 20.⁴¹

1.3 Current energy policy and net zero

Energy policy in the UK is the responsibility of the Department for Business, Energy and Industrial Strategy (BEIS). Although there are numerous regulators for specific parts of the energy sector, much of the energy market is regulated by [Ofgem](#).

Historically, parts of energy generation, transportation, and supply were run by the public sector. Most of the market is now privatised; generation and supply are competitive, and transportation through networks is regulated as the operators are monopolies. Further background information can be found in the Commons Library briefing on [Energy policy: an overview](#) (December 2020).

At the end of 2020, a [Ten Point Plan for a Green Industrial Revolution](#) and an [Energy White Paper](#) were published. These featured new policies and commitments directed at different parts the energy system, including consumers, power, transport, buildings, industrial energy and oil and gas.

The Government's energy policies are linked to its climate change commitments. On a global scale, the use of energy comprises the largest source of greenhouse gas emissions from human activities. The European Environment Agency reports that "about two thirds of global greenhouse gas emissions are linked to burning fossil fuels for energy to be used for heating, electricity, transport and industry".⁴² In 2019, the UK Government committed the UK to a legally binding target of 'net zero' emissions by 2050.⁴³

This section provides an overview of the Government's most recent energy policy statements, together with its climate change commitments, and outlines their implications for new nuclear power.

More information on the earlier 2018 Nuclear Sector Deal (part of the Government's Industrial Strategy) can be found in the Commons Library briefing on [New Nuclear Power](#) (February 2021).

⁴¹ IAEA, [Nuclear Power Reactors in the World 2021](#)

⁴² European Environment Agency, [Energy and climate change](#), May 2021

⁴³ BEIS, [News story: UK becomes first major economy to pass net zero emissions law](#), 27 June 2019

The Ten Point Plan for a Green Industrial Revolution

In November 2020, the Government published [The Ten Point Plan for a Green Industrial Revolution](#) and announced funding and support for the following 10 areas:

1. advancing offshore wind
2. driving the growth of low carbon hydrogen
3. delivering new and advanced nuclear power
4. accelerating the shift to zero emission vehicles
5. green public transport, cycling and walking
6. 'jet zero' and green ships
7. greener buildings
8. investing in carbon capture, usage and storage
9. protecting our natural environment
10. green finance and innovation

The Government stated that the Plan would “mobilise £12 billion of government investment, and potentially three times as much from the private sector, to create and support up to 250,000 green jobs.”⁴⁴

New and advanced nuclear power

Under point 3 – delivering new and advanced nuclear power – the Government announced the establishment of the ‘Advanced Nuclear Fund’ with up to £385 million to invest in the next generation of nuclear power.

The amount included up to £215 million for Small Modular Reactors, to develop a “domestic smaller-scale power plant technology design”, as well as up to £170 million for a research and development programme to deliver an [Advanced Modular Reactor](#) demonstrator by the early 2030s.⁴⁵ In addition, £40 million for “developing the regulatory frameworks and supporting UK supply chains” was identified, to bring advanced nuclear technologies to the market.

A response to a parliamentary question in December 2020 clarified that the Advanced Nuclear Fund contains up to £30 million of existing contracts and commitments.⁴⁶

Included in the ten-point plan are several “target milestones” for new nuclear (generation), including:

2020: Publication of the Energy White Paper

2021: Proposed launch of Phase 2 of UK SMR design development

⁴⁴ HM Government, [The Ten Point Plan for a Green Industrial Revolution](#), November 2020, p3

⁴⁵ Ibid., p12

⁴⁶ [PQ 124252](#), [on Nuclear Reactors: Finance], 11 December 2020

Mid 2020s: Hinkley Point C comes online

Early 2030s: First Small Modular Reactors and an Advanced Modular Reactor demonstrator deployed in the UK⁴⁷

Reactions to the ten point plan

The ten point plan was generally welcomed by stakeholders.

There remain disagreements, however, in policy areas such as nuclear; over the extent the Government should pursue emerging technologies such as hydrogen; and whether the policy announcements are sufficient to address the net zero target.

[Carbon Brief](#), a policy news and analysis site, has set out a summary of media reaction to all the proposals.⁴⁸

In May 2021, the Business Secretary, Kwasi Kwarteng, made a statement to the Commons on the [Ten Point Plan “Six Months On”](#). Responding to a question on the timetable for new nuclear, he stressed that the Government was “completely committed” to bringing new nuclear online and that the Government would bring legislation in this parliament “that will further commit us to creating more nuclear power in this country”.⁴⁹

Energy White Paper

In December 2020, the Government published the [Energy White Paper](#). It built on previous energy policy announcements – including those set out in the ten point plan. It also contained new policies and details, with chapters on consumers, power, energy system (including transport) building, industrial energy, and oil and gas.

The white paper committed the Government to bringing:

“at least one large scale nuclear project to the point of Final Investment Decision (FID) by the end of this Parliament, subject to clear value for money and all relevant approvals.”⁵⁰

Notably, the Government emphasised that its own analysis had shown that “additional nuclear beyond Hinkley Point C” would be needed “in a low-cost 2050 electricity system of very low emissions” and, consequently, it would “remain open to further projects later if the nuclear industry demonstrates that it is able to reduce costs and deliver to time and budget”.⁵¹

⁴⁷ Ibid., p13

⁴⁸ Carbon Brief, [Media reaction: Boris Johnson’s ‘10-point’ net-zero plan for climate change](#), November 2020

⁴⁹ [HC Deb, 18 May 2021, c563](#)

⁵⁰ HM Government, [Energy White Paper](#), December 2020, CP 337, p48

⁵¹ Ibid.

In 2018, the National Infrastructure Commission, recommended that the “Government should not agree support for more than one nuclear power station beyond Hinkley Point C before 2025”.⁵²

The difficulties associated with financing nuclear are also acknowledged in the white paper. The Government stated it was continuing to explore different options, including a Regulated Asset Base (RAB) model (see section 1.4).⁵³

Most recently, in the [Autumn Budget and Spending Review 2021](#), the Government said it would be providing up to £1.7 billion to enable a Final Investment Decision (FID) in a large-scale nuclear project, while also noting that it was in “active negotiations” with EDF over the Sizewell C project.⁵⁴

Some stakeholders reported a “policy gap” shown in the Energy White Paper, between what has been announced and meeting the UK’s statutory carbon budgets and ultimate net zero target. Carbon Brief broke the gap down:

“The government said the measures in its 10-point plan would cut 180m tonnes of CO2 equivalent (MtCO2e) by the end of the fifth carbon budget in 2032. Carbon Brief [estimated](#) this would close 55% of the gap to achieving its upcoming budgets.

Accounting for the policies in the new white paper the government has increased that estimate to 230MtCO2, plus “further savings in other sectors such as transport”.

This would bring the government closer to delivering its upcoming budgets, but would still leave a gap of 101MtCO2e [...] This does not take into consideration the longer term net-zero target which will require more substantial cuts.”⁵⁵

The Government acknowledged that there was a need for additional measures, stating in the Energy White Paper:

“We recognise that more will need to be done to meet key milestones on the journey to net-zero, including our ambition for carbon budget 6, which we will set next year, taking into account the latest advice from the Climate Change Committee.”⁵⁶

A summary stakeholder views is available in the Business Green (login required) article on [Energy White Paper: The green economy reacts](#).

⁵² National Infrastructure Commission, [National Infrastructure Assessment](#), July 2018, p10. The Commission [describes itself](#) as providing expert, impartial advice to the government on infrastructure, shape and develop the national infrastructure assessment. It is an [Executive Agency of HM Treasury](#) but has operational independence.

⁵³ Ibid.

⁵⁴ HM Treasury, [Autumn Budget and Spending Review 2021](#), HC 822, para 2.117

⁵⁵ Josh Gabbatiss, [In-depth Q & A: How does the UK’s ‘energy white paper’ aim to tackle climate change?](#) Carbon Brief, 16 December 2020

⁵⁶ HM Government, [Energy White Paper](#), December 2020, CP 337, p15

Climate change and net zero

In 2008, the [Climate Change Act](#) committed the UK to an 80% reduction of greenhouse gas emissions by 2050, compared to 1990 levels.

The 2008 Act also established the [Climate Change Committee](#) (CCC), an independent body that advises the Government on meeting its carbon reduction targets. In its [Sixth Carbon Budget](#), published in December 2020 and covering the period 2033-37, the CCC recommended that UK electricity production should be “zero carbon by 2035” and presented several scenarios in its report, outlining how a decarbonised electricity system could be realised by 2035.

Its scenario for a “Balanced Net Zero Pathway for electricity generation” sees “new nuclear projects restore generation to current levels by 2035”, following the retirement of existing nuclear plants in the 2020s, so that there is 10 GW of total nuclear capacity by 2035 (8 GW of which is new-build capacity).⁵⁷

Hinkley Point C is scheduled to have a total output of 3.2 GW, meaning that additional new nuclear would be required under this scenario to meet the stipulated 8 GW of new-build capacity.⁵⁸ The CCC’s “alternative routes to delivering abatement in the mid-2030s” also outline a role for new nuclear, though on a more reduced scale than that envisaged in the ‘Balanced Net Zero Pathway’ scenario.

Net Zero Strategy

The UK Government has committed reduce all greenhouse gas emissions to net zero by 2050. In 2019, the [Climate Change Act 2008 \(2050 Target Amendment\) Order 2019](#) legislated to increase the UK’s commitment to a 100% net reduction in emissions by 2050, compared to 1990 levels. The previous target was a reduction of 80%. According to the Government, by passing the Order, the UK became the first major economy to legally require that it “reduce emissions to net zero by 2050”.⁵⁹ Most recently, the Government published its [Net Zero Strategy](#) in October 2021, setting out how the UK will meet its commitment to reach net zero emissions by 2050. In the Strategy the Government set out four key underpinning principles:

1. **We will work with the grain of consumer choice:** no one will be required to rip out their existing boiler or scrap their current car.
2. **We will ensure the biggest polluters pay the most for the transition** through fair carbon pricing.
3. **We will ensure that the most vulnerable are protected through Government support** in the form of energy bill discounts, energy efficiency upgrades, and more.

⁵⁷ CCC, [The Sixth Carbon Budget. The UK’s path to Net Zero](#), December 2020, p135

⁵⁸ [PQ HL2607](#) [on Hinkley Point C power Station] 2 November 2017

⁵⁹ BEIS, [News story: UK becomes first major economy to pass net zero emissions law](#), 27 June 2019

4. **We will work with businesses to continue delivering deep cost reductions in low carbon tech** through support for the latest state of the art kit to bring down costs for consumers and deliver benefits for businesses.

The “key policies” set out in the Strategy relating to electricity generation include a move to “clean electricity” by 2035, “subject to security of supply”, with the power system consisting of:

“...abundant, cheap British renewables, cutting edge new nuclear power stations, and be underpinned by flexibility including storage, gas with CCS, hydrogen and ensure reliable power is always there at the flick of a switch.⁶⁰”

As well as re-stating its commitment to “secure a final investment decision on a large-scale nuclear plant by the end of this Parliament”, the Strategy includes a new £120 million ‘Future Nuclear Enabling Fund’. According to the Government, its purpose is to “provide targeted support in relation to barriers to entry” for advanced nuclear technologies, including Small Modular Reactors (SMRs) and potentially Advanced Modular Reactors (AMRs).⁶¹

Wylfa in Anglesey is identified in the Strategy as a potential site available for both large- and small-scale nuclear projects.⁶² The Financial Times (FT) reported that some of the Government funding is “expected to be channelled into the consortium led by Rolls-Royce” to produce a UK design for SMR reactors.⁶³

The FT states that the consortium has been “seeking private match-funding so it can submit its SMR reactor design to the extensive regulatory approval process before the end of the year”.⁶⁴

In November 2021, the Government announced £210 million in “new government funding” for developing the design of the Rolls-Royce SMR. The Government stated that this figure is to be matched by “private sector funding of over £250 million”.⁶⁵ Further details of the Future Nuclear Enabling Fund are expected to be published in 2022.

A [Net Zero Research and Innovation Framework](#) was also published alongside the Strategy, setting out the key net zero research priority areas for the UK over the next 5-10 years. Nuclear research priorities centre on developing SMRs, AMRs and a prototype fusion power demonstrator.

⁶⁰ HM Government, [Net Zero Strategy: Build Back Greener](#), October 2021, p19

⁶¹ Ibid., p103

⁶² Ibid., p104

⁶³ [Mini nuclear reactors vie for key role in UK’s push to hit climate targets](#), Financial Times, 20 October 2021

⁶⁴ Ibid.

⁶⁵ [Press release: UK backs new small nuclear technology with £210 million](#), Department for Business, Energy & Industrial Strategy, 9 November 2021

The CCC published its [assessment of the Strategy](#) in late October 2021. It concluded that the Strategy was an “ambitious and comprehensive” and marked “a significant step forward for UK climate policy, setting a globally leading benchmark to take to COP26”. It stressed, however, that for the Strategy to be a success, further steps would “need to follow quickly to implement [its] policies and proposals”.⁶⁶ Commenting on the Strategy, the CCC Chief Executive, Chris Stark, noted that the Government had emphasised the role of the market, and of technology, in reaching the 2050 target:

“Clearly, it’s a very market-led strategy. It’s noticeable how frequently the government puts the onus on business to invest and bring down the cost to the consumer. Many have criticised low public spending in some areas, but the government seems to be taking a different route. We shall see how that market-led approach fares.”⁶⁷

The CCC also noted the absence of a clear plan for decarbonising agriculture, which it said was “urgently” needed and pointed to a lack of emphasis in the Strategy on demand measures, such as limiting the growth of aviation demand to reduce emissions.⁶⁸

1.4

Involvement of overseas investors

Overview

The Nuclear Energy (Financing) Bill does not directly address the issue of overseas investors. However, in a press release published alongside the Bill the Business Secretary, Kwasi Kwarteng, said the RAB model “will reduce the UK’s reliance on overseas developers for financing new nuclear projects” and that “the existing financing scheme led to too many overseas nuclear developers walking away from projects, setting Britain back years.”⁶⁹

The media has also reported that part of the Government’s rationale for using the RAB funding model introduced by this Bill, is to “cut China out of involvement in Britain’s nuclear power sector.”⁷⁰ This is because of the deteriorating relations between UK and China, and rising concerns in the UK over China’s investment in critical national infrastructure.

Wrapping up the Second Reading debate on the Bill, George Freeman, Minister for Science, Research and Innovation, said that “I want to make it

⁶⁶ CCC, [Independent Assessment: The UK’s Net Zero Strategy](#), October 2021

⁶⁷ [UK net zero plan achievable and affordable, say climate advisers](#), The Guardian, 26 October 2021

⁶⁸ CCC, [Independent Assessment: The UK’s Net Zero Strategy](#), October 2021, p4

⁶⁹ BEIS, [New finance model to cut cost of new nuclear power stations](#), 26 October 2021.

⁷⁰ [China ‘squeezed out’ of Sizewell C in plan to fund nuclear power](#), The Times, 27 October 2021. [subscription required]

clear that the Bill is not concerned with making it difficult for any particular country or company to apply”.⁷¹

However, the issue of China was raised several times during the debate, and Matthew Pennycook, responding for Labour, called China’s involvement in the UK nuclear industry “the elephant in the room”.⁷² See Section 4 for further details.

During the [Bill’s Committee Stage debate](#), there was also substantial discussion of Chinese involvement in new nuclear projects. Labour put down amendments during this stage to prevent the Government from designating a nuclear company that is owned and controlled (in full or in part) by a foreign state from benefiting from the RAB model, on the basis that this could pose a threat to national security. The amendments were not adopted. See Section 5.2 for further details.

Failed overseas investments in UK civil nuclear projects

In November 2018, the Japanese company Toshiba’s NuGen division [announced it was cancelling its plans](#) to build a nuclear power station at Moorside in Cumbria, after it failed to find a buyer who would purchase the project once completed. In 2017, Kepco, a state-owned South Korean firm had said it [would take over construction from Toshiba](#), but the plans fell through.

In September 2020, the Japanese conglomerate Hitachi confirmed it was [permanently abandoning its plans](#) to build a new nuclear power station at the Wylfa site on Anglesey. Hitachi had already [suspended the project](#) in January 2019 after failing to come to an agreement with the Government over its financing.

In September 2021, it was reported it was reported that the [American nuclear reactor manufacturer Westinghouse was in talks with the Government on taking on the Wylfa project](#).

Current Chinese investment in UK civil nuclear sector

In October 2013, the UK and China signed a [memorandum of understanding \(MoU\) on civil nuclear collaboration \(PDF, 177 KB\)](#). The following week the then Chancellor of the Exchequer, George Osborne, announced that the Government was giving the go ahead for “Chinese companies taking a stake - including potential future majority stakes - in the development of the next generation of British nuclear power”.⁷³

In October 2015, during the state visit of Chinese President Xi Jinping to the UK, the two Governments released a [Statement of Cooperation in the Field of](#)

⁷¹ [HC Deb, 3 November 2021, c1017](#)

⁷² [HC Deb, 3 November 2021, c1013](#).

⁷³ UK Government news story, [Government gives go ahead to Chinese companies taking a stake in British nuclear power](#), (PDF, 177 KB), 17 October 2013.

[Civil Nuclear Energy \(PDF, 2.9MB\)](#). The Statement welcomed the Chinese minority investment in the Hinkley Point C nuclear project in Somerset, and its minority investment in the Sizewell C project in Suffolk. It also welcomed the proposal for a “Chinese-led project” at Bradwell B in Essex, in partnership with EDF, as well as the possibility of a Chinese reactor design. However, both participants acknowledged that “any Chinese reactor design, which might be deployed in the UK, would need to be submitted to the UK’s independent nuclear regulators for Generic Design Assessment.”⁷⁴

Hinkley Point C and proposal for Government “special share”

The private company that will build and operate Hinkley Point C is owned 66.5% by EDF, the majority French state-owned utility company, and 33.5% by China General Nuclear Power Group, (CGN), a Chinese state-owned energy corporation.⁷⁵

Shortly after taking office in July 2016, former Prime Minister, Theresa May, called for a review of the Hinkley Point C project. It was reported that [concerns over China’s involvement in the project](#) were partly behind the review.⁷⁶

In September 2016, the Government [announced it would go ahead with Hinkley](#), and had ensured it would be able to prevent the sale of EDF’s controlling stake before construction was complete, without the prior notification and agreement of UK ministers.

The Government also announced it would introduce a new legal framework for future foreign investment in British critical infrastructure. This would mean that after Hinkley, the Government would “take a special share in all future nuclear new build projects. This would ensure that significant stakes cannot be sold without the Government’s knowledge or consent”.⁷⁷

The new legal framework would have directed The Office for Nuclear Regulation to require developers or operators of nuclear sites to give notice of any change of ownership or part-ownership.

While it doesn’t appear that legislative proposals for such a scheme have been put forward, the National Security and Investment Act 2021 has introduced a new system of regulating foreign investment in sensitive UK industries, including civil nuclear power (see next section (p26) for details).

⁷⁴ The Department of Energy and Climate Change and the China National Energy Administration, [Statement of Cooperation in the Field of Civil Nuclear Energy](#), (PDF, 2.9 MB), 21 October 2015.

⁷⁵ National Audit Office, [Hinkley Point C](#), 21 June 2017.

⁷⁶ “[Hinkley Point: Theresa May’s China calculus](#)”, BBC News, 31 July 2016

⁷⁷ BEIS Press Release, [Government confirms Hinkley Point C project following new agreement in principle with EDF](#), 15 September 2016

Sizewell C in Suffolk

CGN owns a 20% stake in the Sizewell C Project, and EDF owns 80%. This investment is just for the project's development phase, but with an option to participate in construction once investment decisions have been finalised.⁷⁸

The site will use the same EPR reactor design being built at Hinkley Point C. EDF submitted its application for a development consent order for the power station in May 2020.

Treasury documents released alongside the Autumn Budget on 27 October 2021, stated there were "active negotiations" with EDF over the plant and that it had allocated up to £1.7bn in funding to help reach a Final Investment Decision before the next election "subject to value for money and approvals".⁷⁹

In September 2021, the Financial Times reported that the Government was looking for a new financing deal for Sizewell C "which would force state-owned CGN to give up its 20 per cent stake" in the nuclear plant.⁸⁰

It was also reported that "ministers are now expected to block CGN's plans to build a nuclear power station at Bradwell in Essex".⁸¹

Bradwell in Essex

CGN owns 66.5% of the Bradwell B project, and EDF the rest. The project is still conducting surveys and public consultations and has not yet submitted an application for development consent.

In January 2017, the Office for Nuclear Regulation (ONR) and the Environment Agency began assessing the design CGN hopes to use for the Bradwell B site. The assessment is ongoing, but the Environment Agency said, "it aims to publish its final conclusions, alongside the ONR, in early 2022".⁸²

⁷⁸ [UK plans to force sale of Chinese-owned nuclear stake to investors](#), Financial Times, 29 September 2021

⁷⁹ [UK government to invest £1.7bn in Sizewell C nuclear power station](#), Financial Times, 27 October 2021

⁸⁰ [UK plans to force sale of Chinese-owned nuclear stake to investors](#), Financial Times, 29 September 2021

⁸¹ Ibid.

⁸² Office for Nuclear Regulation, [UK HPR1000](#), accessed 1 November 2021.

2 The deterioration of UK-China relations

Over the last few years, the largely cordial relationship between the UK and China has deteriorated sharply.

In the previous two decades, regardless of the political make up of successive UK governments, the trend had been towards closer engagement and cooperation.

The high-point of UK-China relations was during the 2015-17 Conservative Government, when there was talk on both sides of a “golden era”. In October 2015, the Chinese president, Xi Jinping, described Chinese investment in the Hinkley Point C nuclear plant in Somerset as the “flagship project of cooperation”.⁸³

However, growing controversy in the UK over the involvement of the Chinese multinational company Huawei in the UK’s 5G mobile phone network, along with mounting concern about the [erosion of the “one country, two systems” status quo in Hong Kong](#), has changed the relationship between the two countries. Other factors have been [UK concern about understanding the origins of the Covid-19 pandemic](#) and [human rights concerns around the Muslim Uighur population](#) in the Western province of Xinjiang.

In the UK Government’s March 2021 [Integrated review of security, defence, development and foreign policy](#), China was described as a “systemic competitor”.

The review said the UK will “do more to adapt to China’s growing impact on many aspects of our lives as it becomes a more powerful in the world”.⁸⁴ And that the Government will invest in “China-facing capabilities” allowing the UK to better understand China and its people, and improving the UK’s ability to respond to the challenge it poses to “our security, prosperity and values – and those of our allies and partners”.⁸⁵

However, the review also emphasised the Government’s intention to continue pursuing a “positive trade and investment relationship” with China, while also ensuring that national security is protected. It also acknowledged that cooperation with China on transnational issues such as climate change is a necessity.

⁸³ [Work to begin on Hinkley Point reactor within weeks after China deal signed](#), The Guardian, 21 October 2015.

⁸⁴ [Global Britain in a competitive age: The Integrated Review of Security, Defence, Development and Foreign Policy](#), HM Government, March 2021, p24

⁸⁵ [Global Britain in a competitive age: The Integrated Review of Security, Defence, Development and Foreign Policy](#), HM Government, March 2021, p24

National Security and Investment Act 2021

The [National Security and Investment Act 2021](#), introduced new powers for the Government to investigate and intervene in mergers, acquisitions and other deals that could threaten the UK's national security.

These powers included a mandatory notification scheme for proposed acquirers of significant stakes in sensitive entities and assets to seek authorisation and to obtain approval from the Secretary of State before completing their acquisition.⁸⁶ The Government proposed that 17 “key sectors” of the economy would be subject to mandatory notification. The civil nuclear industry is one of those 17 sectors.⁸⁷ The Act will come fully into force on 4 January 2022.

The Financial Times reported in October 2021, that the Nuclear Energy (Financing) Bill would help the Business Secretary, Kwasi Kwarteng, “avoid using new national security and investment legislation that comes into force in January, to forcibly block Chinese involvement — a move which would heighten tensions with Beijing”.⁸⁸

The National Security and Investment Act could only be applied to new investments; therefore this would not appear to affect current Chinese investment in Hinkley Point C.

1.5

Funding new nuclear power

How has funding worked recently?

At present, UK nuclear power stations are privately built and owned. Developers, such as EDF in the case of Hinkley, build the power plants and operate them. To ensure a return on the investment, the Government has negotiated with the developer a Contract for Difference which includes a “strike price”. This is a set price for electricity produced by the finished power station, confirmed for a certain number of years. The developer is guaranteed this price, so if the market rate⁸⁹ for power is below the strike price, the developer is paid an effective top-up. These top-up payments are ultimately passed on to consumer electricity bills. However, if the market price exceeds the strike price the developer must pay back the difference meaning customers are protected from overpayment.

⁸⁶ House of Commons Library, [National Security and Investment Bill 2019-21](#), 18 January 2021.

⁸⁷ BEIS, [National Security and Investment Act: prepare for new rules about acquisitions which could harm the UK's national security](#), 20 July 2021.

⁸⁸ [UK to shut out China with revamped nuclear funding model](#), Financial Times, 26 October 2021.

⁸⁹ Strike prices are only available for certain low carbon developments such as nuclear; all other energy generators are paid the market rate

More information on CfDs is available in the Library briefing paper on [Support for low carbon power](#) (April 2020).

Hinkley Point C was given final approval by the May Government on 15 September 2016 with a strike price of £92.50/MWh.⁹⁰ Reports that followed from the National Audit Office and Public Accounts Committee agreed that there was a strategic case for nuclear. However they are also of the view that the Hinkley deal is poor value for money for consumers. This is because the price agreed, fixed for 35 years, is seen as “locking” customers into paying a higher price than that offered by other technologies.⁹¹

A new model proposed

In October 2017, it was reported that Richard Harrington, the then Parliamentary Under Secretary of State for the Department of Business Energy and Industrial Strategy (BEIS), said that nuclear was necessary but that a finance model like Hinkley was “unlikely” to be used again and that a “third model” existed between private and public funding.⁹²

In June 2018, the then Secretary of State for BEIS Greg Clark said in a statement about Wylfa that the May Government was “reviewing the viability of a regulated asset base (RAB) model” that could “deliver the Government’s objectives of value for money, fiscal responsibility and decarbonisation”.⁹³ In July 2019, the May Government published a consultation on a RAB model of funding for new nuclear power projects which stated:

“Our assessment has concluded that, by providing regulated returns to investors, a RAB model has the potential to reduce the cost of raising private finance for new nuclear projects, thereby reducing consumer bills and maximizing value for money for consumers and taxpayers.”⁹⁴

The consultation sought views on how a RAB model could be implemented for new nuclear; it closed in October 2019.

The consultation highlighted that although Hinkley Point C had been funded using the CfD model, few project developers had the balance sheet to support further nuclear construction projects. In addition, financial investors were unwilling to invest during the construction phase when there was no return and while the project was subject to delays and cost increases.⁹⁵ The RAB

⁹⁰ Gov.uk, [Government confirms Hinkley Point C project following new agreement in principle with EDF](#), 15 September 2016

⁹¹ House of Commons, Public Accounts Committee, Third report of session 2017-19, [Hinkley Point C](#), 22 November 2017 and National Audit Office, [Hinkley Point C](#), 23 June 2017

⁹² Jilian Ambrose, [Government to rethink Hinkley Point Funding model for future projects](#), Telegraph, 3 October 2017

⁹³ HC Deb, 4 June 2018, Vol 642, [c76-77](#)

⁹⁴ BEIS, [RAB Model for Nuclear: Consultation on a RAB model for new nuclear power](#), July 2019

⁹⁵ Ibid., para 14

model provides for payments to start during construction as costs are incurred.

It was also highlighted that in recent years there had been a substantial growth in the volume of private sector capital looking to invest in infrastructure projects, and in the UK this was primarily made up of pension funds and insurers. The consultation states:

“This is potentially a major source of the investment required to meet our decarbonisation objectives. For new nuclear projects to attract this capital, it is necessary that the investment proposition is comparable to the other types of infrastructure projects available for investment. This requires the creation of a more typical infrastructure investment profile where investor exposure to risks and their returns are bounded.”⁹⁶

It said the RAB model could deliver new nuclear projects through:⁹⁷

- a) attracting private capital to finance new nuclear projects in the UK;
- b) incentivising the private sector, through robust regulatory mechanisms and competition where possible, to deliver new nuclear projects on time and to budget; and
- c) enabling a financing structure and cost of capital which is as efficient as possible in order to reduce the total financing costs of new nuclear projects to consumers.

In December 2020, the Johnson Government published the [response to the consultation](#). In general, industry responses were supportive of the RAB model, while environmental groups and NGOs questioned whether the approach would offer value for money:

“3. Responses from industry were supportive of the proposed high-level design principles of the RAB model, with many seeing it as having potential to substantially increase the pool of investors in nuclear to include financial institutions such as pension funds and insurers. By providing greater certainty for the recovery of investment through a secured, lower, rate of return in the early stages of a project this should lower the cost of financing. This in turn should lower costs of electricity to consumers. There were broad views that the Government should provide more details on the specific design of the RAB model in order to get more informed feedback from organisations.

4. Responses from environmental groups and NGOs in general suggested that that new nuclear was unlikely to be value for money given the falling price of renewables and that the application of RAB for nuclear would provide preferential treatment to nuclear over renewables and affect market competitiveness. However, almost all of these groups were

⁹⁶ Ibid., para 23

⁹⁷ Ibid., para 24

opposed to nuclear in-principle, citing security concerns, risk of proliferation and waste management.

5. We received over 9,000 responses from individuals. The majority of these individual responses contained very little substantive information and did not directly address the questions or issues raised in the consultation. Most of these responses disagreed in principle with nuclear and although these emails do not explicitly state that they were sent as a result of an organised campaign, many of them share the same content. A minority of cases where responses from individuals focused on the RAB model itself were negative, expressing broad concerns with the concept of consumer charging for a nuclear project during the construction phase. We also received separately an online petition with over 36,000 signatures requesting that RAB is not used to finance new nuclear projects.

6. Substantive responses from members of the public who were not in-principle opposed to nuclear were generally supportive of the RAB model, highlighting potential for RAB to lower costs of financing new nuclear projects and in turn lower costs to consumers. They also welcomed the jobs that could be created as a result of facilitating new nuclear projects.”⁹⁸

The consultation also outlined next steps, stating that the approach to RAB set out in the consultation ‘remains a credible basis for financing large-scale nuclear projects’. It noted that:

“In particular, it is clear that if any model is to attract private financing it will likely require:

- A variable £/MWh price allowing for the revenue stream to be adjusted by the Regulator as circumstances change.
- An Allowed Revenue during construction to reduce the scale and cost of financing, increasing deliverability and reducing total cost to suppliers and consumers.
- Some level of risk sharing between investors and consumers / taxpayers.

Following the consultation, Government will continue to explore a range of financing options with developers, including RAB. As noted in the consultation, raising the capital required for a new nuclear project is likely to be challenging given the significant investment commitment needed for a new nuclear project developer to reach a FID. Alongside considering the RAB model we will also continue to consider the potential role of government finance during construction, aligning with suggestions from some of the consultation responses, provided that there is clear

⁹⁸ BEIS, [RAB Model for Nuclear: Government Response to the consultation on a RAB model for new nuclear projects](#), December 2020

value for money for consumers and taxpayers and subject to all relevant approvals.

Some respondents stated that in order to provide more granular feedback the Government should provide more details on the specific design of the RAB model. However, the stated purpose of the consultation was to seek views on the high-level design principles of a RAB model. We consider that the level of information provided was appropriate for this stage of the process. Further details will be developed in discussion with developers of specific projects.”⁹⁹

What is a RAB model?

A Regulated Asset Base (RAB) model is a way of financing new infrastructure. It is already used in some UK industries (generally for monopolies). RAB models are already in use in the UK for single construction projects, such as the [Thames Tideway Tunnel](#) Sewerage project.

Consumers paying regulated price for infrastructure held, developed and managed by private company is a standard feature of the existing energy market – for example electricity and gas networks use a model called RIIO (Revenue = Incentives + Innovation + Outputs) to charge regulated prices.¹⁰⁰ The difference in using RAB for nuclear is that large generation projects have not been funded in this way before, and nuclear plants have a high initial capital cost.

In its [2019 consultation](#), the Government outlined what the RAB model was, with examples:

“A RAB model is a type of economic regulation typically used in the UK for monopoly infrastructure assets such as water, gas and electricity networks. The company receives a licence from an economic regulator, which grants it the right to charge a regulated price to users in exchange for provision of the infrastructure in question. The charge is set by an independent regulator who holds the company to account to ensure any expenditure is in the interest of users. In the case of a nuclear RAB, suppliers would be charged as users of the electricity system and would be able to pass these costs onto their consumers who also use the electricity system.

In 2016 the model was applied successfully for the first time to a single asset construction project – the £4.2bn Thames Tideway Tunnel (TTT) sewerage project. Much of the c.£1bn of private sector equity finance that was raised to deliver the project came from UK pension funds, representing 1.7 million pensioners, or a quarter of the UK’s largest 25 pension funds.

⁹⁹ Consultation response, paras 100-103

¹⁰⁰ More information on RIIO is available in the Library briefing paper on [Electricity grids](#) section 1.2

RAB-funded infrastructure has received significant quantities of investment from private sector players over the last 20-30 years. As of 2018 the total RAB value across the UK electricity, gas, water and airport sectors is c.£160bn (2018 prices).

Under economic regulation, the cost of transporting a unit of electricity around Britain has fallen by 17% since the mid-1990s, relative to the retail price index. Since 2015 there have been significant improvements in distribution network reliability, currently standing at 99.99%. Customer interruptions have fallen by 11%, and the duration of interruptions has fallen by around 9%. In 2009-10 the average duration of distribution network power cuts was 97 minutes, in 2017-18 it was 36 minutes.”¹⁰¹

The Government’s consultation on a RAB model for nuclear set out these key features of the model:

- “a) Government protection for investors and consumers against specific remote, low probability but high impact risk events, through a Government Support Package (GSP);
- b) A fair sharing of costs and risks between consumers and investors, set out in an Economic Regulatory Regime (ERR);
- c) An economic regulator (the ‘Regulator’) to operate the ERR; and
- d) A route for funding to be raised from energy suppliers to support new nuclear projects, with the amount set through the ERR, during both the construction and operational phases (the ‘Revenue Stream’).”¹⁰²

A Government Support Package (GSP)

A GSP would provide protection to investors for specific low probability/high risk events. Examples of these given include risk of cost overrun over a certain threshold, disruption to debt markets, risks which cannot be insured and political risks. For cost overruns a ‘funding cap’ would be established ‘at a level which there was only a remote chance of construction costs reaching this level’. Mechanisms would be developed for managing costs above the funding cap, which would include further investor funds and/or increased regulated charges.¹⁰³

An Economic Regulatory Regime (ERR)

An ERR would be established – where a licence would be granted to a company to allow it to charge nuclear RAB payments (called ‘Allowed Revenue’) in exchange for the construction and operation of a nuclear plant.

¹⁰¹ BEIS, [RAB Model for Nuclear: Consultation on a RAB model for new nuclear power](#), July 2019, p10

¹⁰² BEIS, [RAB Model for Nuclear: Consultation on a RAB model for new nuclear power](#), July 2019, para 26

¹⁰³ Ibid., paras 27-30

The 2019 consultation set out the ‘building blocks’ that would make up Allowed Revenue. These are expected to be:

- Return on Capital (the WACC – Weighted Cost of Capital allowed by the regulator x the RAB – Regulated Capital Value, the total cumulative capital expenditure approved as being efficient by the Regulator, adjusted for inflation and depreciation)
- Depreciation – allowing for the repayment of the initial capital cost
- Operating costs
- Tax
- Grid costs
- Funded decommissioning programme
- Incentives, penalties and other adjustments

Importantly, the Allowed Revenue would be charged during the construction and operational periods. During the construction period the Allowed Revenue would increase as the project spend increased. The Government argue the risk to consumers of paying for a plant that may not be completed would be managed by a due diligence process that ensured the ‘risk of non-completion was highly remote’.¹⁰⁴ The length of the time the Allowed Revenue would be collected for would be part of the design for each project, as the 2019 consultation made clear:

“The right to charge the Allowed Revenue set through the ERR could run for the construction phase and an operational phase similar to the design life of a plant (for example, 50 or 60 years). However, it would also be possible under a nuclear RAB model to set the ERR over a shorter period than the expected life of the plant (e.g. 35 years, the length of the CfD for HPC). A decision on this would be made as part of the overall design of the ERR for each new nuclear project, with regard to factors likely to enable best value for money for consumers, including affordability for suppliers and consumers, the expected cost of capital, the expected life of the plant and financing considerations.”¹⁰⁵

In the Government response to the consultation it is noted that respondents broadly support the components of the regime. Investors highlighted that due to “the potential lack of relevant nuclear, construction and operational experience among investors, strategic equity (investment on the part of the project developer) would likely be required.”¹⁰⁶ They also raised concerns whether overall funding requirement would be met in the market using a competitive financing process.

An Economic Regulator (the Regulator)

A Regulator would be set up who would have the responsibility for protecting the interests of the consumer while having ‘regard to the ability of the project

¹⁰⁴ Ibid., paras 31-38

¹⁰⁵ Ibid., para 39

¹⁰⁶ BEIS, [RAB Model for Nuclear: Government Response to the consultation on a RAB model for new nuclear projects](#), December 2020, para 24

company to finance the project'.¹⁰⁷ A new body or existing entity would need to be set up to take on the function (which would need to interact with the range of other regulatory functions around energy and nuclear).

The Revenue Stream

Under the RAB the project company would receive a revenue stream based on their Allowed Revenue. The revenue would flow during construction and operation, and would include a variable £/MWh price calculated by the Regulator. This is different from the Contract for Difference regime where the strike price (in £/MWh) is fixed.

During construction suppliers would be charged a share of the Allowed Revenue based on their market share at the time; in operation suppliers would be charged their share of Allocated Revenue minus a forecast of the revenue that would be obtained from the wholesale energy market at a set reference price. Suppliers would pass the costs on to consumers, with the detail for this to be designed in consultation with suppliers and consumer representatives.¹⁰⁸

An intermediary body would need to be established to manage the payments, and this would be separate from the Regulator.

Managing construction cost risk

The 2019 consultation discussed managing construction cost risk; one of the criticisms of the RAB model is that construction cost risk is transferred to consumers. The final decision for design of construction cost risk management would be agreed separately for each project. The consultation suggested two models:

- An 'Ex post' cost settlement where the Regulator would review costs incurred by the project and determine which sit inside the Allowed Revenue calculation.
- An 'Ex ante' cost settlement which set a target total construction cost which would be set as a baseline. If construction costs were above the baseline, a proportion of them would be allocated to the Allowed Revenue so that additional costs were shared between consumers (through the RAB) and investors. If costs were below the baseline any benefits would also be shared.¹⁰⁹

The consultation suggested a preference for the ex-ante approach and this was generally supported in the response. However, the consultation response also noted that:

“28. There was broad consensus across the majority of respondents that the sharing of costs with consumers in the event of a major construction

¹⁰⁷ BEIS, [RAB Model for Nuclear: Consultation on a RAB model for new nuclear power](#), July 2019, para 58

¹⁰⁸ Ibid., para 64

¹⁰⁹ Ibid., paras 40-42

cost overrun was potentially unpalatable, given examples of nuclear construction overruns globally and in the UK. Consumer groups noted that it would be important to have clarity on what risk sharing arrangements were likely to be in the event of an overrun.”¹¹⁰

Impact on consumers

The 2019 consultation asked for views on the protection of consumer interest. It was highlighted that initial analysis showed the RAB model was beneficial for consumers compared to a Contracts for Difference approach:

“55. Our initial view, consistent with NAO analysis in their report on Hinkley Point C, is that a nuclear RAB model has the potential to significantly reduce the £/MWh price and that these consumer savings would be robust to significant cost overruns or construction delays. A detailed value for money assessment [...], factoring in the probability and impact of different potential outturn scenarios, would be carried out prior to any decision to grant a RAB licence and GSP to a specific project.”¹¹¹

In the Government response some of the issues raised included:¹¹²

- Some respondents suggested taxpayer funding during construction would be preferable, and other mechanisms to reduce risk were mentioned. Some said RAB would be best applied to suitable projects, and not a technology or design not yet in use.
- The impact on certain groups was highlighted – local residents and the local environment to a project, energy intensive industries and vulnerable consumers.
- On risk sharing, some individuals and consumer groups felt the risk balance was tilted in favour of investors, while investors and developers were concerned with managing too many risks, particularly around development risk.
- Respondents suggested that to mitigate cost and time overruns scrutiny by the Government and regulator was important.

The Government response noted the positives and negatives of RAB compared to Contracts for Difference according to respondents:

“Positives of RAB over CfD

52. Developers, investors and construction organisations noted that a RAB model has the potential to reduce the cost of capital compared to a CfD by both sharing the risks of constructing a new nuclear power plant with consumers and providing a return to investors during construction

¹¹⁰ BEIS, [RAB Model for Nuclear: Government Response to the consultation on a RAB model for new nuclear projects](#), December 2020, para 28

¹¹¹ BEIS, [RAB Model for Nuclear: Consultation on a RAB model for new nuclear power](#), July 2019, para 55

¹¹² BEIS, [RAB Model for Nuclear: Government Response to the consultation on a RAB model for new nuclear projects](#), December 2020, paras 39-46

resulting in lower equity/debt returns being required over the life of the project. Cost of capital was stated by some respondents to be by far the largest element of the cost of a nuclear project, so lowering the cost of capital would result in a lower project cost overall.

53. Respondents also pointed out that a CfD requires developers to include high levels of contingency in the Strike Price, and that this cost is passed on to consumers regardless of whether the risk materialises or not. Under a RAB, the cost would only be passed on to consumers if the risk were to materialise.

Negatives of RAB over CfD

54. Consumer groups and NGOs argued that even if a RAB model resulted in a lower cost project overall, this would be at the cost of significant risk transfer to consumers and it was not appropriate to share the risks of constructing a new nuclear project with consumers given the scale, nature and track record of nuclear projects. Some responses noted that in this respect a CfD was preferable as it placed the construction risk fully on the developer, albeit at a higher overall cost.

55. Wider Energy Organisations provided more mixed responses to this issue, citing that CfD auctions for alternative scalable low carbon and proven technologies have consistently delivered on time and on budget, and that for CfDs, consumer exposure to construction risk is fixed. It was also suggested that it is less clear if consumer risk sharing in a RAB model could be good value for consumers for “first of a kind” projects compared with a CfD model, as there are additional risks in bringing forward “first of a kind” projects such as uncertainties of constructability, operation, delivery of output performance and availability consistent with design.”¹¹³

Value for money

Because under a RAB model consumers are required to pay for the infrastructure while it is being built, consumers are at risk from cost-overruns and delays to construction, which have been common in recent examples of nuclear construction in Europe and the USA. Strike prices do not include this risk, as customers do not start paying for the plant until it is generating so the risks of increasing costs and delays during construction fall on the developer. Instead, the RAB model gives developers a guaranteed return from the start of the project. The aim of this is to lower their risk and the cost of borrowing money, making investment more attractive.

The consultation asked whether the overall approach would raise capital for new nuclear build and deliver value for money for taxpayers. In response developers of nuclear projects felt it could attract large amounts of private capital and “(t)hey pointed out the significant appetite in the UK investor market for the debt and equity cashflows that would be produced by the RAB

¹¹³ Ibid., paras 52-55

model”.¹¹⁴ Some consumer groups and NGOs noted the risk of cost overruns being passed on to consumers:

“In particular, respondents noted historic cost overruns with nuclear and that the model would potentially lock consumers into higher prices. On the contrary, developers, nuclear sector and wider energy organisations noted that a RAB model could lead to a reduction in the cost of financing through regulated returns during construction and risk sharing between consumers and investors facilitating private sector investment and ultimately minimising overall cost to consumers. Responses from suppliers were mixed on this issue, with some suggesting the value for money would depend on the arrangements under which construction risks are managed and how returns are paid to investors, and that this will only be achieved if the correct risks are passed on to consumers and that these are mitigated appropriately.”¹¹⁵

Some responses noted that consumer funding via the RAB model could be more regressive than taxpayer funding, while passing costs on to energy-intensive industries could be more challenging than for standard retail customers. Other responses noted the potential for the RAB model to be extended to other technologies.¹¹⁶

¹¹⁴ Ibid., para 10

¹¹⁵ Ibid., para 12

¹¹⁶ Ibid., paras 13-15

The Bill

The [Nuclear Energy \(Financing\) Bill](#) was introduced in the House of Commons and received first reading on 26 October 2021. Second reading is expected to take place on 3 November 2021.

The [purpose of the Bill](#) is to provide for a new model for financing new nuclear power stations in the UK. The Bill creates a framework for a Regulated Asset Base (RAB) model to be used, in line with the 2019 consultation by the Government (see section 1.4).

The RAB model is expected to allow new nuclear projects to be financed via private investors such as pension funds and insurers, and reduce the reliance on overseas investors.

The Bill allows for eligible nuclear generation companies to be given a right to a regulated revenue stream relating to the construction, commissioning and operations of a new nuclear project. This will be funded by a charge placed on electricity suppliers. The Bill does this by:

- Allowing for the Secretary of State to **‘designate’ a nuclear company** that is eligible to receive the benefit of the RAB special licence conditions. Once they are ‘designated’ the Secretary of State will be able to amend their existing generation licence to insert the special conditions of a RAB that set out how the Project will be regulated and its allowed revenue calculated. To be designated the project will be expected to show regard to objectives for low carbon energy supply and the cost to consumers.
- Allowing for the Secretary of State to **regulate for Revenue Collection Contracts** which will provide for the flow of funding to the nuclear company. These are called the ‘Revenue Regulations’ in the Bill. Payments will be managed by a ‘revenue collection counterparty’. Projects will be paid an ‘Allowed Revenue’ which is broadly the agreed capital cost of a project along with other relevant costs. This would be paid over a period agreed with the Government. Payments will be made by electricity supply companies who are expected to pass the cost on to consumers. Costs will start to be charged to consumers during construction based on the Allowed Revenue due for the period. During operation the cost will be the Allowed Revenue due minus the value of selling the energy generated.
- Creating a **Special Administration Regime**, modelled on that already in place in other parts of the energy industry. If a generator with a RAB contract becomes insolvent (which the Government considers very unlikely), the Government can apply for a court order to appoint a special administrator to manage that generator and the plant. They

would have the objectives of maintaining (or restarting) energy generation and rescuing the generator.

- Amending the **Energy Act 2008** in relation to Funded Decommissioning Programmes. This would ensure clarity on how decommissioning programmes would apply to certain finance sources in nuclear projects.

The Bill does not cover the actual investment decision for a specific project, the level of expenditure and payments, provisions to manage risk and overall value for money. The Secretary of State will undertake negotiations on the terms and conditions of a RAB with the company until the Final Investment Decision (FID). During these negotiations the Secretary of State could consult on and then make a designation. Once this is done Ofgem would publish draft economic guidance setting out the factors they expect to consider when making regulatory decisions that relate to a nuclear RAB licensee, and the company would seek a capital raise to identify finance. Licence modifications could be made at any point following designation, with final adjustments made just before a FID. Shortly after the FID the revenue collection contract would be made and the designation end.

According to the impact assessment, the Government expect to ‘designate’ a project at Royal Assent and then move to modify their licence conditions in Q4 2022.

Alongside [the Bill](#) a series of documents were published:

- [Nuclear Energy \(Financing\) Bill Explanatory Notes](#)
- [Delegated Powers Memorandum](#)
- [Impact Assessment](#)

The Bill will require a money resolution. The Bill potentially increases public expenditure relating to the management of the new system of funding via the Competition and Markets Authority (CMA), Ofgem and Government.

Territorial extent

In general, energy is a reserved matter. Parts 1, 2 and 3 of the Bill extend and apply to England, Wales and Scotland. Northern Ireland does not share the energy infrastructure of Great Britain and is therefore not included. The provisions relating to funding decommissioning programmes apply and extend to England, Wales and Northern Ireland. This is because these provisions amend the Energy Act 2008 which has this territorial extent.

2.1

Part 1: The Regulatory Regime

Part 1 of the Bill allows for the Secretary of State to ‘designate’ a nuclear company that is eligible to receive the benefit of the RAB special licence conditions. Once they are ‘designated’ the Secretary of State will be able to amend their existing generation licence to insert the special conditions of a

RAB that set out how the Project will be regulated and its allowed revenue calculated. It includes provisions to deal with subsequent licence modifications and appeal methods for the licence holder (to the CMA).

Clause 1 introduces definitions which are important for the Bill overall:

- A ‘Nuclear company’ means a company that holds an electricity generation licence in respect of a nuclear energy generation project.
- A ‘Designated Nuclear Company’ term is introduced (see clause 2);
- A ‘relevant licensee nuclear company’ is one which has had its licence modified under this Bill and is party to a revenue collection contract.

Under the Bill ‘the Authority’ is the Gas and Electricity Markets Authority (GEMA) which in practice is the current energy regulator Ofgem.

Clause 2 allows the Secretary of State to ‘designate’ a company in relation to a nuclear energy generation project. To do this two conditions must be met:

- the Secretary of State is of the opinion that the development of the nuclear project is sufficiently advanced to justify the designation, and
- the Secretary of State is of the opinion that designating the nuclear company in relation to the project is likely to result in value for money.

To make the designation the Secretary of State must follow a specific procedure, and the powers relating to this are established by **clause 3**. The Secretary of State must publish a statement that sets out the procedure for making a designation and the criteria that will be considered. The explanatory notes suggest the following are examples of the things the statement may have regard to:

- Ensuring the security of supply to consumers of electricity;
- The cost to consumers;
- Ensuring the provision of low carbon electricity; and
- Achieving UK 2050 net zero obligations.¹¹⁷

Draft reasons for the designation must be prepared, and a series of parties should be consulted, including the company itself and devolved Ministers where the project is in a devolved area.

The final notice must be published and include:

- a description of the nuclear project,
- the reasons for the designation
- details of any conditions imposed by the Secretary of State in relation to the designation and of the consequences of a failure to comply with any such condition, and
- the date of the notice.

¹¹⁷ [Bill 174 EN 2021-22](#), para 50

The clause allows for all but the final notice being carried prior to the passing of this legislation.

Clauses 4 and 5 provide for the expiry and extension of a designation, and the revocation of a designation.

Amending licence conditions

Under the [Electricity Act 1989](#) certain activities related to electricity supply, transmission and generation are prohibited unless the person who carries them out is licenced to do so.

There is a set of standard licence conditions for each licensable activity. Licensees are obliged to comply with the licence conditions for their type of licence from the day the licence is granted. Licensees must also become party to and/or comply with certain industry codes. Further information on licencing, and a standard generation licence, is available from the [Ofgem website](#).

Clause 6 of the Bill provides the Secretary of State with the power to modify the electricity generation licence of a designated nuclear company. The power is limited to the purpose of facilitating investment in the design, construction, commissioning and operation of nuclear energy generation projects. Under 6(4) the Secretary of State must pay regard to a series of considerations when making the modification:¹¹⁸

- the duties the Secretary of State has regarding the reduction of carbon emissions, specifically targets and budgets, under the Climate Change Act 2008.
- the interests of existing and future electricity consumers, including in relation to the cost of electricity and the security of electricity supply;
- the costs, expenditure and liabilities that the nuclear company could reasonably be expected to incur in carrying out its activities in relation to the nuclear project;
- the need for the nuclear company to be able to finance its activities;
- the need to ensure that the nuclear company has appropriate incentives when carrying out its activities; and
- any other matters the Secretary of State considers appropriate.

Clause 6(5) gives examples of the modifications that could be made:

- “(a) provision about the revenue that the nuclear company may receive in respect of its activities (the company’s “allowed revenue”);
- (b) provision about how the nuclear company’s allowed revenue is to be calculated;
- (c) provision about the amounts that the nuclear company is entitled to receive, or is required to pay, under any revenue collection contract to which it is a party;

¹¹⁸ [Bill 174 EN 2021-22](#), para 75

- (d) provision about activities that the nuclear company must, may or may not carry on;
- (e) provision about the management of the nuclear company's activities, including the manner in which they are carried out;
- (f) provision conferring functions on the Authority, including provision enabling or requiring the nuclear company to refer for determination, decision or approval by the Authority matters specified, or of a description specified, in the licence;
- (g) provision enabling the nuclear company to refer to the CMA a decision of the Authority falling within section 10(3) (decisions relating to allowed revenue);
- (h) provision for the amendment of the licence for the purpose of implementing a determination or decision of the Authority or the CMA;
- (i) provision requiring the nuclear company to comply with any direction or instruction, or to have regard to any guidance, given by the Authority in relation to matters specified, or of a description specified, in the licence;
- (j) provision requiring the nuclear company to co-operate with the Authority and to provide such information and assistance to the Authority as the Authority may require for the purposes of carrying out any of its functions;
- (k) provision about the payment by the nuclear company, to the Authority or to the CMA, of such amounts as may be determined by or in accordance with the licence;
- (l) provision about relevant licensee nuclear company administration orders (as defined in section section 31(1)), including provision about the raising of funds for the purpose of meeting expenses arising by virtue of such an order;
- (m) provision about the disclosure or publication of information by the nuclear company.”

Under Clause 6 the modifications will only come into effect once the company enters into a revenue collection contract.

Clause 7 provides for the modification of a licence during the period of construction where expenditure is likely to exceed the cap in the licence. This allows for agreed adjustments to allowed revenue.

Clause 8 provides for the modification procedure the Secretary of State must follow for licence changes under clause 6 and 7. This includes consulting:

- “(a) the nuclear company whose licence is being modified,
- (b) the Authority,
- (c) the Office for Nuclear Regulation,
- (d) where any part of the site for the nuclear project is in England, the Environment Agency,
- (e) where any part of the site for the nuclear project is in Wales, the Welsh Ministers and Natural Resources Wales,
- (f) where any part of the site for the nuclear project is in Scotland, the Scottish Ministers and the Scottish Environment Protection Agency,
- (g) in the case of a modification under section 6(7), other holders of a licence being modified, and

(h) such other persons as the Secretary of State considers appropriate.”

The modification consultation can take place prior to the passing of the legislation. The modification must be published as soon as possible after it takes place.

Under **clause 9**, if the designation expires, lapses or is revoked, the licence condition changes are treated as having not been made.

Clause 10 allows for nuclear companies, where a relevant licence modification has been made, to appeal decisions of the Authority in relation to Allowed Revenue to the CMA (Competitions and Markets Authority). **Clause 11** requires a nuclear company to provide information to the Secretary of State relevant to their duties in designating companies and modifying licences.

Clause 12 provides an information sharing power for the Authority relating to a licenced nuclear company, while **clause 13** allows for the Secretary of State to withhold information under this part on the basis on commercial confidentiality or national security.

2.2

Part 2: Revenue Collection Contracts

Part 2 of the Bill provides for the arrangements for revenue to be paid to the company operating the nuclear plant, with the detail to be set out in regulations. Under the proposed model, a ‘revenue collection counterparty’ will be designated to collect the Allowed Revenue under the contract and pay it to the nuclear operator.

The Authority (Ofgem) will calculate the ‘Allowed Revenue’ for the lifetime of the project and a ‘forecast allowed revenue’ for any charging period. During the construction period the operator will receive the full Allowed Revenue for any charging period (based on the construction, or investment, completed to date).

When the plant is operational expected revenue from the wholesale market will be deduced from forecast Allowed Revenue to be collected directly from suppliers, with a reconciliation process at the end of the charging period.

The Allowed Revenue to be collected by the counter party will be charged to suppliers based on their GB Electricity market share. The cost of running the payment system will also be charged to suppliers to be passed on to consumers.

The [impact assessment](#) includes a hypothetical example of a new nuclear build based on variables from previous projects and other estimates. Modelling shows the present value of the total cost of a nuclear project is reduced by more than 50% using the RAB model compared to a Contract for Difference.

Clause 15 provides the Secretary of State with a regulation making power for revenue collection contracts between a revenue collection counterparty and a designated nuclear company. In the Bill these are otherwise known as the ‘Revenue Regulations’. Revenue collection contracts will be bilaterally negotiated between the Secretary of State and the relevant nuclear company. The regulations will be required to be made by the affirmative procedure in certain circumstances:

- the first-time regulations are made relating to:
 - Information and advice (section 23)
 - Functions of the Authority (section 24)
- Or any regulations relating to:
 - Designation of a revenue collection counterparty (section 16)
 - Duties of a revenue collection counterparty (section 17)
 - Direction to offer to contract (section 18)
 - Supplier Obligation (section 19)
 - Payments to electricity suppliers (section 20)

Before making the regulations the Secretary of State must consult Scottish and Welsh Ministers, relevant nuclear generators (and designated generators under the Act), all licenced Electricity suppliers, Ofgem and the national system operator (clause 25). This consultation may take place before the legislation is passed.

Clause 16 allows for the creation of the counterparty to manage payments. The Secretary of State will be able to designate a company registered in England and Wales or Scotland or a public authority, with their consent, to act as the counterparty to revenue collection contracts. The revenue collection counterparty will enter into and manage revenue collection contracts with relevant licensee nuclear companies and will act as the interface between those companies and suppliers.¹¹⁹

Clause 17 sets out the duties of the revenue collection counterparty. They will be required to act in relation to any direction from the Secretary of State and the regulations made under clause 15. **Clause 18** allows the Secretary of State to make a direction to the Revenue Collection Counterparty to enter into a revenue collection contract, on the terms specified in the direction. Regulations can set out how that direction will work.

Clause 19 establishes the obligations of suppliers to pay a revenue collection company. The Revenue Regulations (made under clause 15) must require suppliers to pay the counterparty for amounts due under a revenue collection contract, and place a duty on the counterparty for collection. They may also allow charges for administration costs, to hold sums in reserve and to meet the cost of losses relating to insolvency or default of a supplier across all

¹¹⁹ [Bill 174 EN 2021-22](#), para 125

suppliers. The regulations can also allow for financial collateral to be held, and deal with disputes and late payment. **Clause 20** provides that the Revenue Regulations may deal with payments to suppliers (where suppliers have overpaid as a result of a reconciliation of allowed revenue). Breaches of the Revenue Regulations would be treated by Ofgem as a breach of a licence condition (**clause 22**). The Revenue Regulations may also provide for information provision and publication requirements, and allow Ofgem to give advice and make determinations on revenue collection contracts.

Clauses 26 and 27 allow the Secretary of State to establish and modify a scheme to change the revenue collection counterparty.

Clause 29 provides for the Secretary of State to make modifications to transmission and distribution licences in order to allow or require services to be provided to a revenue collection counterparty, and to enforce obligations under a revenue collection contract.

2.3

Part 3: Special Administration Regime

The Government considers it “very unlikely”¹²⁰ that a nuclear generation company will become insolvent. But if it does, there is a risk that the plant could stop generating electricity.

Insolvency under the RAB model poses an additional risk to consumers. This is because it entails consumers paying (through their energy bills) during the construction phase of the plant, before it has generated any electricity. So there is a risk that a generation company could become insolvent during the construction phase with the project unfinished, potentially resulting in consumer loss.

Under normal insolvency law, when a company becomes insolvent, a specialist insolvency practitioner may be appointed. If the company cannot be rescued, they will sell off its assets to try and extract as much money as possible for the benefit of the company’s creditors (people owed money). In the case of a nuclear generation company the end consumer might not see the project completed or continue to generate electricity,¹²¹ and so would be forced to pay again for an alternative source.

Part 3 therefore introduces a special insolvency regime for nuclear generation companies, which tries to ensure that electricity generation can continue if the company becomes insolvent. It is modelled on the system already in place for some energy companies under the Energy Act 2004 (which was used for the first time in November 2021 in relation to energy provider Bulb).¹²²

¹²⁰ Impact Assessment, para 44

¹²¹ Impact Assessment, para 95

¹²² Department for BEIS, [Bulb customers protected as energy provider enters special administration](#), 24 November 2021

How will the regime work?

The Secretary of State¹²³ would be able to apply to the court for an order¹²⁴ which would require a nuclear generation company to be run by someone else (an administrator) appointed by the court. The court could make this order if it thought that the company can't (or likely can't) pay its debts or there is another reason why it would be "just or equitable" to do so.¹²⁵

The administrator must be a qualified insolvency practitioner¹²⁶ and their objective would have two limbs. The first would be to secure that electricity generation continues (or, if it has stopped or not yet begun, starts) at the plant. The second limb would be to rescue the company (or, if not realistic, to transfer or sell it off to another company)¹²⁷ so that the court administration order could be released.¹²⁸ The administrator must try to achieve this objective as quickly and efficiently as possible¹²⁹ and the Secretary of State (with the Treasury's consent) may give grants, loans, indemnities or guarantees to help achieve the objective.¹³⁰

So long as it is compatible with the objective, the administrator would also need to act in a way which protects the interests of creditors, and then members (shareholders) of the company.¹³¹

No one would be able to take steps to put the nuclear generation company into insolvency proceedings without first giving notice to the Secretary of State and Ofgem,¹³² and then waiting 14 days. This would apply, for example, to a frustrated creditor who wanted to apply to the court for an order to wind-up (close down) the company under ordinary insolvency law. It would also apply to someone with security over property of the company (like a mortgage over the plant).¹³³ The aim is to give the Secretary of State (or Ofgem) a chance to apply to court for the special administration order available in the Bill before anyone else can try and take insolvency measures against the company.¹³⁴

The special administration process ends with the Secretary of State¹³⁵ (or Ofgem or the administrator, with the Secretary of State's permission)

¹²³ Or the Gas and Electricity Markets Authority, with the Business Secretary's consent: Energy Act 2004, s. 156

¹²⁴ Known as a "relevant licensee nuclear company administration order" (clause 31)

¹²⁵ Energy Act, s. 157, applied by clause 33

¹²⁶ Energy Act, s.158(4), applied by clause 33

¹²⁷ With the Secretary of State's consent: Clause 33, Energy Act 2004 Schedule 21, para 3

¹²⁸ Clause 32

¹²⁹ The exact phrase used is "reasonably practicable". Energy Act, s. 158

¹³⁰ Clause 33 and Energy Act, ss. 165 - 167. Indemnities can also be granted in connection with the administrator's powers and duties (s. 166)

¹³¹ Ibid.

¹³² Note the powers and duties are granted to the Gas and Electricity Markets Authority (GEMA, 'the Authority' in the Bill). GEMA is the governing body of Ofgem.

¹³³ Energy Act, s.160 to 164

¹³⁴ [Bill 174 EN 2021-22](#), para 191(e)

¹³⁵ Currently the Secretary of State for Business, Energy and Industrial Strategy

applying to court for an order to lift the appointment of the administrator. This could happen where the objective of the administration has been successfully achieved, or where the Secretary of State has decided that the objective can't be achieved. If the objective can't be achieved, the Secretary of State can use existing powers¹³⁶ to create a "nuclear transfer scheme" (with the consent of the Treasury) to bring the nuclear plant into public control to be decommissioned.¹³⁷

Changes to licences

When a company is in special administration under Part 3, the Secretary of State would be able to amend the terms or conditions of that company's electricity generation licence (including the standard conditions included in licences) to help achieve the objectives of administration. The changes envisaged include things like amendments to the level of revenue the company can receive, how that revenue is calculated, and requiring the disclosure of information to Ofgem or the public.¹³⁸

When considering such amendments, the Secretary of State must have regard to:

- a) The UK's climate change target and budget;
- b) The interests of existing and future consumers of electricity;
- c) The costs of the generation company in carrying out its activities;
- d) The need for the generation company to finance its activities;
- e) The need for the generation company to have incentives to carry out its activities; and
- f) Such other matters which the Secretary of State thinks appropriate.¹³⁹

Before amending a licence, the Secretary of State must consult the administrator, Ofgem, the Office for Nuclear Regulation, the relevant devolved body,¹⁴⁰ and other persons considered appropriate. For changes to standard conditions which will affect more than one company, other holders of a licence being modified must also be consulted.¹⁴¹

The changes must then be published after they are made, unless it would be likely to prejudice the commercial interests of someone or national security to do so.¹⁴²

¹³⁶ Under sections 38 to 42 of the Energy Act 2004

¹³⁷ [Bill 174 EN 2021-22](#), para 31

¹³⁸ Clause 35(1), (2), (4) and (5)

¹³⁹ Clause 35(3)

¹⁴⁰ The Environment Agency in England, the Welsh Government and Natural Resources Wales in Wales, and the Scottish Government and Scottish Environment Protection Agency in Scotland

¹⁴¹ Clause 36(1)

¹⁴² Clause 36(5) and (6)

Delegated powers

Part 3 grants the Secretary of State several powers to make secondary legislation, including two Henry VIII powers (which enable the amendment of Acts of Parliament). The Government believes these powers are “proportionate and necessary to achieve the policy aim”.¹⁴³

Clause 34 extends a power already available under the Insolvency Act 1986 and Energy Act 2004 to Part 3 of this Bill. This allows the Secretary of State¹⁴⁴ to make rules governing the special administration regime under the Bill. It is intended to cover the “detailed procedural requirements” of the administration process. The power is already available for other special administration regimes in the energy industry and, without it, the Government says the Bill would need to be significantly longer to cover detailed issues of procedure like the quorum required for various meetings. Such rules are subject to the [negative resolution procedure](#), which the Government considers appropriate given that the rules will be technical in nature and will already have been scrutinised by the specialist Insolvency Rules Committee.¹⁴⁵

Clause 37 grants the Government a Henry VIII power which is subject to the negative resolution procedure. It extends a power already in the Enterprise Act 2002 to Part 3 of the Bill, allowing for Part 3 to be amended to keep up with changes made to broader insolvency law using the Enterprise Act. It is intended that any changes made using this power will be “narrowly focused” and the negative resolution procedure is considered appropriate in light of the “limited scope and circumstances in which this power may be exercised”.¹⁴⁶

Clause 38 introduces a wider Henry VIII power to amend insolvency legislation (including Part 3 of the Bill) relating to anything in Part 3. It is intended to be used if experience of the special administration regime’s application in the future highlights “any difficulties or areas of concern”. It is based on existing powers already available (including under the Energy Act 2004¹⁴⁷) and is considered necessary to “make appropriate amendments to the regime as insolvency law and practices develop”. As the powers cover a range of legislation and could be used widely, the Government considers the affirmative resolution procedure appropriate.¹⁴⁸

2.4

Other provisions

Clause 41 deals with amendments to the law around decommissioning programmes for nuclear sites. All nuclear power stations have a finite life

¹⁴³ Delegated Powers Memorandum, para 12

¹⁴⁴ Together with the Lord Chancellor in England

¹⁴⁵ Delegated Powers Memorandum, p38

¹⁴⁶ Ibid., p41-42

¹⁴⁷ See Schedule 20, para 46 of the Energy Act

¹⁴⁸ Delegated Powers Memorandum, p43-44

beyond which it is not safe or economically feasible for them to continue to operate. The [Energy Act 2008](#) requires prospective operators of nuclear power stations to submit a funded decommissioning programme to the Secretary of State which must be approved before construction can start. The Secretary of State has a power to modify a funded decommissioning programme, in particular to impose obligations on bodies corporate which are “associated” with the site operator.

Clause 41 amends the definition of ‘associated’ in the Energy Act 2008. The explanatory notes set out why the change is being made:

“35 The Government believes that the original intention of this was to provide the Secretary of State with flexibility to impose FDP obligations on entities who would be expected to have a substantial degree of influence over the operator’s normal activities, for example the operator’s group companies and substantial equity investors.

36 However, it is possible that the legislation could potentially be interpreted in such a way that other participants in the financing for a new nuclear project, such as security trustees and secured creditors, could be at risk of falling within the scope of the definition of bodies corporate ‘associated’ with the site operator due to the action they take, or are entitled to take, with regard to the enforcement of security. Neither of these types of entities would have a substantial degree of control over the operator’s normal activities. Given the potentially large costs that could be imposed through this power, their potential inclusion within the scope of Section 67 has made it much less likely that bodies of this type will become involved in the financing of new nuclear projects. The Bill therefore clarifies that the activities of secured creditors and security trustees will not be classed as being ‘associated’ with a site operator simply by virtue of rights, powers or shares that they hold in connection with the management and enforcement of security interests relating to the project. This will facilitate the ability of projects to raise senior debt.”¹⁴⁹

Clause 44 deals with commencement. The provisions in the Bill come into force at Royal Assent or two months after Royal Assent.

¹⁴⁹ [Bill 174 EN 2021-22](#), p7-8

3

Comment on the Bill

Reaction to the Bill from stakeholders has been mixed. Some environmental bodies have questioned whether the RAB model set out in the Bill offers value for money for consumers and whether it transfers the risk of cost overruns to consumers. Tom Burke, the co-founder of E3G, a climate think-tank, told the [Financial Times](#) that the model risked being “a very bad deal for consumers” on the grounds that electricity generated from nuclear power would be more expensive than that from ‘homegrown’ renewables and would simultaneously “inhibit the market in wind, [an] area where we have the opportunity to create a global competitive industry in the UK”.¹⁵⁰ The same article included comment from Steve Thomas, Professor of Energy Policy at the University of Greenwich, who questioned whether people would want their pension funds exposed to construction risk cost and whether that meant the consumer would take on all the risk.

In [an article in the i on the day the legislation](#) was published, Doug Parr, Chief Scientist at Greenpeace, noted that the RAB model had already been used to finance nuclear power in the United States, adding that the “results were disastrous”:

“It transfers huge financial risk from the builders to bill payers. In South Carolina, 18 per cent of residents’ energy bills went to pay for a half-built reactor which has been abandoned and will never produce electricity.”¹⁵¹

Josh Buckland, a senior fellow at the think tank Policy Exchange, commented that “consumers paying during construction will be controversial” and that it would therefore be crucial for the government to ensure value for money for billpayers by avoiding major cost overruns for civil nuclear projects.¹⁵²

3.1

Business and industry

Business and industry groups broadly welcomed the bill.

[Ofgem](#) and the Nuclear Industry Association (NIA) both welcomed the Bill, with the NIA describing it as “essential to mobilise investment in new nuclear capacity” while also stating that it would “save consumers billions on their

¹⁵⁰ [UK to shut out China with revamped nuclear funding model](#), Financial Times, 26 October 2021

¹⁵¹ [China to be cut out of Sizewell C plant in new move to fund nuclear power](#), i newspaper, 26 October 2021

¹⁵² [‘A crucial step’: Government unveils funding plan for new nuclear plants](#), Business Green, 26 October 2021

bills by cutting the cost of funding projects”.¹⁵³ Tom Thackray, CBI Decarbonisation Programme Director, commented that the new financing model represented a “crucial step in building a secure, affordable and greener energy system in the years ahead”. He noted that the RAB model had been used successfully across UK infrastructure, adding that it held “the potential to secure backing from a wide range of investors. Getting new projects off the ground will be a huge boost to supply chains and can deliver jobs right across the UK”.¹⁵⁴ An article in *New Civil Engineer* quoted Chris Ball, from the Canadian engineering company SNC-Lavalin, who described the introduction of the RAB model as a “welcome step forward for new nuclear” while noting the need for decarbonisation efforts to move quickly in the UK.¹⁵⁵

A spokesperson for the Sizewell C nuclear plant, being developed by EDF in partnership with the Chinese firm CGN, also highlighted the benefits the legislation would bring to supply chains:

“This legislation is a big step forward and will allow us to fund Sizewell C so that it delivers reliable low carbon nuclear power at a lower cost to consumers [...] Building on the success of Hinkley Point C, it will also deliver another big boost to thousands of supply chain companies up and down the country. 70% of the construction value will go to British companies and the legislation means Sizewell C could be majority owned by British investors.”¹⁵⁶

¹⁵³ [Press release: RAB financing for nuclear will make UK power cheaper, cleaner, and more secure](#), Nuclear Industry Association, 26 October 2021

¹⁵⁴ CBI, [Our response to Government's new nuclear power stations finance model](#), 26 October 2021

¹⁵⁵ [Tideway funding mechanism will be used to build Britain's next nuclear plant](#), *New Civil Engineer*, 26 October 2021

¹⁵⁶ [Government introduces RAB funding bill for new nuclear](#), *Utility Week*, 27 October 2021

The [Second Reading of the Nuclear Energy \(Financing\) Bill 2021-22](#) took place on 3 November 2021. The Minister of State for Business, Energy and Clean Growth, Greg Hands, said the purpose of the Bill was to “keep nuclear in the [electricity] mix at a lower cost than it would otherwise be” by designating companies as a RAB.¹⁵⁷

The Minister set out the benefits of this as follows:

“A RAB model allows a company to charge consumers to construct and operate new infrastructure projects. It allows the company’s investors to share some of the project’s construction and operating risks with consumers, overseen by a strong economic regulator. That in turn significantly lowers the cost of capital, which is the main driver of a nuclear project’s cost to consumers.”¹⁵⁸

“RAB is a tried and tested method that has successfully financed other large UK infrastructure projects. The introduction of a special administration regime will prioritise the plant’s opening and continuing to operate in the unlikely event of a project company’s insolvency. That will protect consumers’ investment in the plant and ensure that they realise the plant’s benefit. Members should know that this legislation is not specific to one project, as I have already said, and could be applied to nuclear projects across Great Britain.”¹⁵⁹

He said the Bill would also introduce technical changes to the regime for funded decommissioning programmes in England and Wales, to support private financing.¹⁶⁰

He also explained that the Bill would change the profile of potential investors in new nuclear plants in Great Britain:

“This new funding model will reduce our reliance on overseas developers for financing new nuclear projects. It will substantially increase the pool of potential private investors to include British pension funds, insurers and other institutional investors.”¹⁶¹

Turning to the effect on consumers, Greg Hands set out the Government’s assessment of costs for new nuclear projects financed by a RAB. He said a

¹⁵⁷ [HC Deb 3 November 2021 c978](#)

¹⁵⁸ [HC Deb 3 November 2021 c979](#)

¹⁵⁹ [HC Deb 3 November 2021 c979](#)

¹⁶⁰ [HC Deb 3 November 2021 c979](#)

¹⁶¹ [HC Deb 3 November 2021 c979](#)

project that began construction in 2023 would add on average less than £1 per month to the average dual-fuel household bill during the "full construction phase":

“Our analysis has shown that using this funding model for a nuclear project could produce a cost saving for consumers of more than £30 billion, compared with funding projects through a contract for difference.”¹⁶²

He explained that Scottish consumers would pay towards these projects, because they would benefit from nuclear powers stations financed through the RAB model. Consumers in Northern Ireland would not pay, because Northern Ireland is part of the single electricity market with the Republic of Ireland, and therefore beyond the scope of the Bill.¹⁶³

The Minister also confirmed that the Bill “will not alter the current approval process for new nuclear, nor the responsibilities of the devolved Governments”.¹⁶⁴

Winding up the debate, the Parliamentary Under Secretary of State, Minister for Science, Research and Innovation, George Freeman addressed concerns that the Bill would make it difficult for specific countries or companies to apply for funding:

“A number of colleagues raised the issue of national security [...] the Bill is not concerned with making it difficult for any particular country or company to apply. The quality of the bids will be considered in due course by the Secretary of State, with full accountability to Parliament. The Bill does not determine any future nuclear project’s ownership structure; it simply creates a new financing model that broadens our options for new nuclear.

[...]

[T]his is not about shutting out individual companies or countries, and the Government have already taken significant powers through the National Security and Investment Act 2021.”¹⁶⁵

Labour generally supported the Bill,¹⁶⁶ but was of the view that the Government’s primary aim was to allow the financing of Sizewell C.¹⁶⁷

¹⁶² [HC Deb 3 November 2021 c980](#)

¹⁶³ [HC Deb 3 November 2021 c981](#)

¹⁶⁴ [HC Deb 3 November 2021 c981](#)

¹⁶⁵ [HC Deb 3 November 2021 c1017](#)

¹⁶⁶ [HC Deb 3 November 2021 c986](#)

¹⁶⁷ [HC Deb 3 November 2021 c983](#)

Dr Alan Whitehead, Labour Shadow Minister for Climate Change and Net Zero, generally supported the Bill but raised questions about the robustness of the RAB model, including whether it might suffer from “optimism bias”:¹⁶⁸

“The Government have sought to alleviate at least some of the disadvantages by introducing to the Bill a special administrative regime for the project in the event of a failure of the company involved during construction. We will look carefully at those provisions, but they seem to be a useful commitment to ensure the robustness of the overall project, even if its prime developer fails to deliver. We also accept that provisions in the Bill on who may be involved in legacy and decommissioning costs will help to clarify the risks for security trustees and secured creditors.”¹⁶⁹

He also called for the Government to clarify its intentions regarding Chinese investment in Sizewell.¹⁷⁰

The SNP and the Liberal Democrats both stated their opposition to new nuclear power in the round, and in turn, their opposition to the Bill.¹⁷¹

The SNP Shadow Minister for Energy and Climate Change, Alan Brown, noted that Scotland’s electorate has “consistently voted to elect a Government on a “no new nuclear” manifesto”.¹⁷² He expressed the party’s view that nuclear is not necessary to deliver low carbon, reliable power in Great Britain.¹⁷³ He also raised concerns about the overall costs of the Government’s nuclear plans, and questioned whether the higher end of the Government’s estimated savings from the RAB (between £30 and £80 billion) is realistic.¹⁷⁴

The Liberal Democrat Spokesperson for Business, Trade, and Transport, Sarah Olney, said that support to unlock private sector investment would be better targeted at innovative energy technologies such as marine power, smart and flexible technologies and hydrogen,¹⁷⁵ which in turn would create jobs across a wider area of the country.¹⁷⁶ She said the UK “cannot afford the legacy of nuclear waste that the Government propose to leave to future generations”.¹⁷⁷

During the debate, most MPs expressed their support for the Government’s approach. There were also a range of concerns raised, including that:

¹⁶⁸ [HC Deb 3 November 2021 c986](#)

¹⁶⁹ [HC Deb 3 November 2021 c985](#)

¹⁷⁰ [HC Deb 3 November 2021 c986](#)

¹⁷¹ [HC Deb 3 November 2021 c989](#); [HC Deb 3 November 2021 c999](#)

¹⁷² [HC Deb 3 November 2021 c994](#)

¹⁷³ [HC Deb 3 November 2021 c993](#)

¹⁷⁴ [HC Deb 3 November 2021 c989-990](#)

¹⁷⁵ [HC Deb 3 November 2021 c998](#)

¹⁷⁶ [HC Deb 3 November 2021 c997](#)

¹⁷⁷ [HC Deb 3 November 2021 c999](#)

- the Government’s nuclear plans are not sufficiently ambitious;¹⁷⁸ and that to avoid job losses in the sector a pipeline of new nuclear plants needs to be secured;¹⁷⁹
- financing should also be available for small modular reactors (SMRs) and advanced modular reactors (AMRs),¹⁸⁰ as well as any necessary infrastructure and mitigation measures in local communities;¹⁸¹
- the Government’s focus on nuclear power is misplaced, and instead it should be supporting other technological solutions also able to provide firm (“base load”) power such as pumped hydro storage;¹⁸²
- the Government is “picking winners “ by giving preferential treatment to nuclear over renewable technologies;¹⁸³ and that decentralised energy technologies may have greater potential for job creation across the UK;¹⁸⁴
- there are safety concerns over nuclear power,¹⁸⁵ and the provisions and costs for nuclear waste disposal;¹⁸⁶
- the risk of cost overruns, and that new nuclear could present different, possibly greater risks and costs than other infrastructure projects currently financed through a RAB model;¹⁸⁷
- the Government needs to make clear its intentions for Chinese involvement in new nuclear and how it will manage any changes and associated costs as a result of the proposed legislation.¹⁸⁸

The Bill was approved for second reading on division with 319 votes for and 44 against.

¹⁷⁸ [HC Deb 3 November 2021 c975](#)

¹⁷⁹ [HC Deb 3 November 2021 c1000](#); [HC Deb 3 November 2021 c1000](#)

¹⁸⁰ [HC Deb 3 November 2021 c988](#); [HC Deb 3 November 2021 c1000](#); [HC Deb 3 November 2021 c1006](#)

¹⁸¹ [HC Deb 3 November 2021 c983](#)

¹⁸² [HC Deb 3 November 2021 c980](#); [HC Deb 3 November 2021 c992-993](#); [HC Deb 3 November 2021 c998](#)

¹⁸³ [HC Deb 3 November 2021 c975](#); [HC Deb 3 November 2021 c991](#); [HC Deb 3 November 2021 c992](#)

¹⁸⁴ [HC Deb 3 November 2021 c997](#)

¹⁸⁵ [HC Deb 3 November 2021 c991](#)

¹⁸⁶ [HC Deb 3 November 2021 c990](#); [HC Deb 3 November 2021 c999](#)

¹⁸⁷ [HC Deb 3 November 2021 c1005](#); [HC Deb 3 November 2021 c1007](#); [HC Deb 3 November 2021 c1014](#)

¹⁸⁸ [HC Deb 3 November 2021 c1013](#)

The [Committee Stage of the Nuclear \(Energy\) Financing Bill 2021-22](#) took place over six sittings between 16 and 25 November 2021. In the first two sessions the Committee heard evidence from the following witnesses:¹⁸⁹

- Julia Pyke, Director of Financing, Sizewell C Company
- David Powell, VP Nuclear Power Plant Sales/Head of UK Business Development, GE Hitachi Nuclear Energy
- Michael Waite, Director New Plant Market Development, Westinghouse Electric Company
- Sue Ferns, Deputy General Secretary, Prospect Trade Union
- Charlotte Childs, GMB National Officer, GMB Trade Union
- Simon Coop, Acting National Officer for Energy and Utilities, Unite the Union
- Richard Hall, Chief Energy Economist, Citizens Advice
- Chris Ball, Managing Director EMEA Nuclear, SNC Lavalin
- Dawn James, Vice President Nuclear, Jacobs
- Cameron Gilmour, Vice President Nuclear, Doosan Babcock
- Alan Woods, Director for Strategy and Business Development, Rolls Royce
- Tom Thackeray, Director for Decarbonisation, Confederation of British Industry
- Tom Greatrex, CEO, Nuclear Industry Association
- Rebecca Groundwater, Director of External Relations, Energy Industries Council
- Mycle Schneider, World Nuclear Industry Status Report
- Professor Stephen Thomas, Emeritus Professor of Energy Policy, Greenwich University
- Doug Parr, Policy Director and Chief Scientist, Greenpeace UK

The remaining four sessions considered the Bill and proposed amendments. The written evidence and the transcript of all six sessions are available on the [Committee's website](#).

The Bill passed committee stage without amendment. Six opposition amendments were rejected on division. Discussion focussed on foreign ownership and control of nuclear power, transparency and consumer protections.

¹⁸⁹ [PBC Deb 16 November 2021 c1](#); [PBC Deb 16 November 2021 c25](#)

5.1

Evidence sessions

During evidence sessions, industry representatives [welcomed the legislation](#).¹⁹⁰ They said there was [a lack of detail in the Bill](#) on what the requirements would be for a company project to be designated.¹⁹¹ There was also interest from industry representatives in the potential for the RAB model to be used in the future to [finance small nuclear reactors](#).¹⁹²

Trade union representatives supported the Bill and its aim to increase finance available for nuclear investment. They were of the view that nuclear investment provides a good return rate on job creation.¹⁹³ They also called for a requirement for union access for workers and all contractors to be included in the Bill.¹⁹⁴

Richard Hall, speaking on behalf of Citizens Advice raised concerns about the historical cost overruns of nuclear power, and the implications for consumer energy bills under the RAB model.¹⁹⁵ He called for any sharing of costs related to project overruns to be slanted towards the developer facing most of the cost, because it is developers rather than consumers that have any ability to control these. He also called for a right to appeal costs awarded by the Government to be extended beyond developers to include other interested parties.¹⁹⁶ Citizens Advice was of the view that an independent third-party impact assessment was needed to look at the key terms of any agreement made between the Government and a nuclear operator. Any agreement should also be made public and scrutinised by Parliament before being finalised.¹⁹⁷

The view of environmental groups was that nuclear power was not an effective baseload for electricity supply for several reasons, highlighting instead the potential of battery storage as a more flexible alternative.¹⁹⁸ They also raised concerns about nuclear power generally, about the RAB model itself and the potential costs to consumers of project overruns and failures.¹⁹⁹

¹⁹⁰ [PBC Deb 16 November 2021 c 5; PBC Deb 16 November 2021 c 34](#)

¹⁹¹ [PBC Deb 16 November 2021 c 8](#)

¹⁹² [PBC Deb 16 November 2021 c 12](#)

¹⁹³ [PBC Deb 16 November 2021 c22](#)

¹⁹⁴ [PBC Deb 16 November 2021 c22](#)

¹⁹⁵ [PBC Deb 16 November 2021 c30](#)

¹⁹⁶ [PBC Deb 16 November 2021 c29](#)

¹⁹⁷ [PBC Deb 16 November 2021 c30](#)

¹⁹⁸ [PBC Deb 16 November 2021 c57](#)

¹⁹⁹ [PBC Deb 16 November 2021 c59](#)

Amendments rejected on division

Foreign ownership and control of nuclear power

Amendments 1 and 2 (considered together) were put forward by Matthew Pennycook, on behalf of Labour and supported by the SNP. They sought to introduce a new subsection to both clauses 1 and 2. The subsections would together prevent the Secretary of State from designating a nuclear company that is owned and controlled (in full or in part) by a foreign state, on the basis that this could pose a threat to national security.²⁰⁰

Amendment 1 aimed to define “owned by a foreign power” as meaning “a company controlled by a foreign state and operating for investment purposes”.²⁰¹ Amendment 2 aimed to prevent the Secretary of State from “designating a nuclear company owned or part-owned by the agents of a foreign power” according to this definition.²⁰²

Matthew Pennycook set out the rationale for the amendments:

“the Minister [...] may argue that the amendments are unnecessary, because no Secretary of State would choose to designate a nuclear company to benefit from the RAB model that posed any threat to national security. Yet it is precisely because previous Secretaries of State have been content to allow companies that the Opposition would argue should never have been given the opportunity to own and operate UK nuclear plants that we believe we need such additional safeguards in the Bill”.²⁰³

Dr Alan Whitehead clarified that the amendments were not intended to prevent foreign-owned majority consortia from investing in new nuclear, but rather to prevent foreign states from acquiring control of new nuclear power stations:

“Their [the amendments’] combined effect would not be to prevent the coming together of consortia that are not UK majority-owned. That would almost certainly render future projects unviable or more costly, but the amendments’ incorporation in the Bill would ensure that consortia drawing upon the RAB model could not include investors owned and controlled by a foreign state.

The use of the word “controlled”, as per amendment 1, is critical. [...] We are acutely aware that in attempting to amend the Bill to prevent a company such as CGN from benefiting from the RAB model, we would not wish to prevent all companies in which states have a majority interest—EDF is the most obvious example—from doing so. That is why amendment

²⁰⁰ [PBC Deb 18 November 2021 c74](#)

²⁰¹ [PBC Deb 18 November 2021 c74](#)

²⁰² [PBC Deb 18 November 2021 c74](#)

²⁰³ [PBC Deb 18 November 2021 c74](#)

1 specifically defines “owned by a foreign power” as one owned and controlled by a foreign state.”²⁰⁴

The Minister of State for Business, Energy and Clean Growth, Greg Hands, opposed the amendments. He said they could prevent foreign developers part-owned by close allies from investing in new nuclear powers, and that they would violate the Trade and Cooperation Agreement with the EU. He said the National Security and Investment Act would give the Government sufficient powers to act should it need to.²⁰⁵

He went on to set out what measures would be in place that would address the concerns raised:

“Under the National Security and Investment Act, the Government will have significant oversight of acquisitions of control in a nuclear project.

Significantly, the Government will be able to intervene in any qualifying transaction, including an acquisition that would take the holdings to 25% or more of the shares or votes in an entity, or an acquisition of material influence over an entity. Such qualifying transactions would be subject to a national security assessment and would require the approval of the Secretary of State for Business, Energy and Industrial Strategy to proceed. That is a very tough condition on the sort of involvement that is at the heart of the interventions made by Opposition Members.

The Act also provides the Government with the ability to call in any acquisitions for assessment if there are national security concerns. From that assessment, the Secretary of State can order the prevention or alteration of the acquisition. The final funding model of any nuclear project would also be subject to full scrutiny from the UK Government prior to a final investment decision.

As currently drafted, both amendments would appear to violate the commitments we made in article 129 of the trade and co-operation agreement with the European Union.”²⁰⁶

Amendment 2 was rejected on division with five for and eight against.²⁰⁷ Amendment 1 was withdrawn, being consequential to amendment 2.

During the debate, the Government’s plans for Chinese involvement in new nuclear were also discussed. The Opposition called for the Government to make its intentions clear, because this would affect discussions on the Bill.²⁰⁸

The Opposition also asked the Government to explain more clearly the purpose of the £1.7 billion set aside in the Autumn Budget to enable a final

²⁰⁴ [PBC Deb 18 November 2021 c77](#)

²⁰⁵ [PBC Deb 18 November 2021 c87](#)

²⁰⁶ [PBC Deb 18 November 2021 c87](#)

²⁰⁷ [PBC Deb 18 November 2021 c89](#)

²⁰⁸ [PBC Deb 18 November 2021 c75-76](#)

investment decision for a large-scale nuclear project in this Parliament.²⁰⁹ Further details on the concerns raised can be found in section 1.4 (p21).

Increases to the allowed revenue and effect on consumer levies

Amendments 11 and 12 to clause 7 (considered together) were put forward by Labour. Amendment 11 sought to prevent the Secretary of State from increasing levies on consumers if they decided to increase the nuclear company's allowable revenue, due to an increase in costs or timescale.²¹⁰ Amendment 12 sought to require the Secretary of State to publish a statement setting out how the increased allowable revenue would be funded without additional consumer levies.²¹¹

Labour said that consumers should not be liable for additional costs incurred on a nuclear project beyond the "allowed revenue" as initially set, for example if the allowed revenue is increased to reflect cost overruns.²¹² It said that if an increase in allowed revenue is necessary, there are alternative means that could be used to fund the additional costs, such as taxation or issuing bonds.²¹³

Greg Hands said the likelihood of the allowable revenues cap being breached was "remote",²¹⁴ but if it was, "both amendments would narrow down the options the Secretary of State has for ensuring that the project completes construction".²¹⁵ He explained:

"The financing cap will be based on robust risk analysis, including best-practice, reference-class modelling, and set at a level that is sufficiently remote that there is a very low chance that it would be reached."²¹⁶

"in the event that the financing cap is reached, investors would not be obliged to provide the capital to complete the project and this risks considerable sunk costs to consumers if the project is discontinued. Given the size and importance of the project, the Government consider it crucial that there is a mechanism in place to allow the additional capital to be raised to ensure completion of the project."²¹⁷

²⁰⁹ [PBC Deb 18 November 2021 c76](#)

²¹⁰ [PBC Deb 18 November 2021 c124](#)

²¹¹ [PBC Deb 18 November 2021 c124](#)

²¹² [PBC Deb 18 November 2021 c125](#)

²¹³ [PBC Deb 18 November 2021 c126](#)

²¹⁴ [PBC Deb 18 November 2021 c127](#)

²¹⁵ [PBC Deb 18 November 2021 c127](#)

²¹⁶ [PBC Deb 18 November 2021 c127](#)

²¹⁷ [PBC Deb 18 November 2021 c127](#)

The Minister also said that consumer interests would be considered, as any decision to adjust the allowable revenue would follow a consultation with Ofgem.²¹⁸

Amendment 11 was rejected on division, with five votes for and seven against.²¹⁹ Amendment 12 was rejected without division.

Warm Home Discount Scheme

Dr Alan Whitehead proposed amendment 15, which sought to introduce a new subsection to clause 19. The subsection would mean that:

“electricity bill payers who qualify for the Warm Homes Discount scheme would not be liable for levies on their bills that pay into the RAB revenue collection fund”.²²⁰

Dr Whitehead said that any increase in levies resulting from the RAB could put new households into fuel poverty.²²¹

The Minister replied that a project funded under the RAB model would:

“add, at most, a few pounds a year to typical household energy bills during the early stages of construction and less than £1 per month on average during the full construction phase of the project”.²²²

He also explained the Government’s plans to review energy levies in the round:

“As set out in the heat and buildings strategy late last month, we will also publish a fairness and affordability call for evidence to set out the options for energy levies and the obligations to help rebalance electricity and gas prices and to support green choices, with a view to taking decisions in 2022. [...] It is right that broader conversations about how to deal fairly with customers’ bills are dealt with as part of this process, rather than by taking a narrower approach for each technology and funding scheme, which the amendment seeks to do”.²²³

Labour, SNP and Liberal Democrat MPs raised concerns about the expected cost of levies arising from the RAB (at £10-£12 per year), drawing comparison with the Government’s proposed £10 annual increase in the value of the Warm Homes Discount.²²⁴

²¹⁸ [PBC Deb 18 November 2021 c127](#)

²¹⁹ [PBC Deb 18 November 2021 c128](#)

²²⁰ [PBC Deb 23 November 2021 c146](#)

²²¹ [PBC Deb 23 November 2021 c147](#)

²²² [PBC Deb 23 November 2021 c148](#)

²²³ [PBC Deb 23 November 2021 c149](#)

²²⁴ [PBC Deb 23 November 2021 c150](#)

The amendment was rejected on division, with six votes for and seven against.

²²⁵

Financial collateral paid by electricity suppliers

Clause 19 deals with suppliers' obligations in relation to the functioning of the revenue stream for nuclear operators.²²⁶ The clause includes a requirement for the Secretary of State, when making revenue regulations, to include provision for electricity suppliers to make payments to the designated revenue collection counterparty, so that it in turn can make payments to a nuclear operator.²²⁷

Amendment 20 was proposed by the SNP, which sought to introduce a new subsection to clause 19. This would have required the Secretary of State to consider the following matters before requiring an electricity supplier to provide financial collateral to a revenue collection counterparty:

- “(a) the number of customers the supplier has;
- (b) the level of bad debt from customers;
- (c) the liabilities of the electricity supplier including any renewables obligations due and what levels of collateral will risk the supplier's operations as a going concern;
- (d) the impact on consumer bills of upfront payments to the revenue collection company; and
- (e) the value and extent of forward hedging the supplier has in the market.”²²⁸

Alan Brown said that clause 19 would allow the revenue collection counterparty “to set the form and terms of the financial collateral that it demands from electricity suppliers”²²⁹ and calculate the payments due.²³⁰ He said that without suitable protections, including for the financial health of energy suppliers, this could negatively affect energy suppliers, particularly in the context of the ongoing energy crisis.²³¹

The Minister said that the Government “will protect suppliers from paying unreasonable amounts of collateral and ensure that overpayment of collateral is returned to suppliers”.²³² He continued:

²²⁵ [PBC Deb 23 November 2021 c151](#)

²²⁶ [Explanatory Notes to the Nuclear Energy \(Financing\) Bill, para 140](#)

²²⁷ [Explanatory Notes to the Nuclear Energy \(Financing\) Bill, para 141-142](#)

²²⁸ [PBC Deb 23 November 2021 c151](#)

²²⁹ [PBC Deb 23 November 2021 c152](#)

²³⁰ [PBC Deb 23 November 2021 c152](#)

²³¹ [PBC Deb 23 November 2021 c152](#)

²³² [PBC Deb 23 November 2021 c155](#)

“The protection [for suppliers] in the Bill is through the regulation of the process and the oversight, for example by the authority, in this case Ofgem, which will ensure that any amounts paid to the generation company are reasonable.”²³³

The Minister also explained that the provisions for financial collateral had already been used successfully in the Contracts for Different regime, and that the Government was seeking to replicate aspects of this “to provide a familiar and workable framework for suppliers”.²³⁴

The amendment was rejected on division, with two for and seven against.²³⁵

Application of sums held by a revenue collection counterparty, including payment to the Consolidated Fund

The Explanatory Notes to the Bill state that subsection (4) and (5) of clause 21 allow regulations to be made about:

“the use of sums a revenue collection counterparty holds and for the circumstances where monies received should or should not go to the Consolidated Fund”.²³⁶

The Consolidated Fund is the Government's general bank account at the Bank of England.²³⁷

Amendment 17 to clause 21, proposed by Labour, sought to require the Secretary of State:

“to consider alternatives to the absorption into the consolidated fund of sums held by a revenue collection counterparty on behalf of energy bill payers”.²³⁸

Dr Alan Whitehead said that if surplus funds are held by the revenue collection counterparty, these should be returned to the energy supplier – and in turn to customers – rather than being paid to the Consolidated Fund, and that payments to the Consolidated Fund should only be considered as a last resort.²³⁹

The Minister did not accept the amendment. He said:

²³³ [PBC Deb 23 November 2021 c155](#)

²³⁴ [PBC Deb 23 November 2021 c155](#)

²³⁵ [PBC Deb 23 November 2021 c156](#)

²³⁶ [Explanatory Notes to the Nuclear Energy \(Financing\) Bill, para 150](#)

²³⁷ [UK Parliament, Glossary - Consolidated Fund](#), accessed 5 January 2021

²³⁸ [PBC Deb 23 November 2021 c162](#)

²³⁹ [PBC Deb 23 November 2021 c162-163](#)

“we envisage the power to have limited but important uses. For example, it could be used to ensure that the counter-party repays a loan given by the Government—by the taxpayer—to respond to an emergency. [...]

The taxpayer should be able to be repaid that loan, but the amendment provides that sums cannot be paid into the Consolidated Fund where there is an alternative”.²⁴⁰

The amendment was rejected on division, with six votes for and seven against.²⁴¹

5.3

Amendments discussed without division

Ability of the nuclear company to complete the project

Amendment 3 to clause 2 sought to require that the Secretary of State is “of the opinion that the nuclear company is able to complete the nuclear project”, as a pre-requisite to designating that nuclear company to deliver a new nuclear power station.²⁴²

Labour proposed the amendment aiming to improve accountability, should it transpire that the Secretary of State had not conducted sufficient due diligence at the point of the decision, and that as a result, a project had encountered difficulties that could have been foreseen.²⁴³ The amendment was withdrawn following reassurances by the Minister.²⁴⁴

Prospects of recouping the contributions of consumers at the completion of the construction phase of the project

Amendment 9 to clause 6 sought to require that when modifying a licence, the Secretary of State should give regard to the interests of existing and future consumers over their prospects of recouping their contributions at the end of the construction phase of the nuclear project.²⁴⁵ The amendment was proposed by Dr Alan Whitehead.

Dr Whitehead said that since consumers would be paying for the nuclear project, they have an active interest in it, including the extent to which consumers’ collective investment in the project can be recouped as the RAB comes to its conclusion (eg, through lower bills, dividends),²⁴⁶ and what

²⁴⁰ [PBC Deb 23 November 2021 c164](#)

²⁴¹ [PBC Deb 23 November 2021 c165](#)

²⁴² [PBC Deb 18 November 2021 c89](#)

²⁴³ [PBC Deb 18 November 2021 c92](#)

²⁴⁴ [PBC Deb 18 November 2021 c97](#)

²⁴⁵ [PBC Deb 18 November 2021 c117](#)

²⁴⁶ [PBC Deb 18 November 2021 c118](#)

happens to the ownership of the power station if the RAB ends during its working life.²⁴⁷

The Bill states that the project should be paid an “allowed revenue” throughout the development, construction and operation of the project. When the plant is operational, expected revenue from the wholesale market would be deducted from the forecast allowed revenue – this could result in the company paying back profits above the allowed revenue if wholesale prices are high. Dr Whitehead argued that if this happened, this money should be paid back to customers as they are investors in the project.²⁴⁸

The Minister responded:

“the amendment misunderstands how the RAB model will work. The RAB model will mean that consumers contribute to meeting project costs from the start of construction and reducing the cost of capital, which is the main driver of project costs. That is why we are seeking consumers’ contribution. What they get in return is a nuclear power station that produces low-cost, low-carbon electricity.”²⁴⁹

“a bill payer’s contribution is not an investment. The objective is to lower the cost overall to the consumer. That is why we have the figure of £30 billion or more, or £10 a year per bill payer. The consumer’s objective is not to become an investor and get a return on that investment, but to have a future source and availability of low-cost, low-carbon electricity—that is, through a nuclear power station.”²⁵⁰

The amendment was withdrawn.

Establishing a Government-owned company as part of the special administration regime

Part 3 of the Bill sets out a special administration regime for nuclear generation companies. Amendment 18 sought to introduce a new subsection to clause 32, which falls within Part 3.

The amendment was proposed by Dr Alan Whitehead, who described its purpose as follows:

“Where a failed company cannot be rescued as a going concern or successfully have its assets transferred to a subsidiary, this amendment would require the Government to establish a Government-owned company to allow operations to continue”.²⁵¹

²⁴⁷ [PBC Deb 18 November 2021 c118](#)

²⁴⁸ [PBC Deb 18 November 2021 c118](#); [PBC Deb 18 November 2021 c122](#)

²⁴⁹ [PBC Deb 18 November 2021 c119](#)

²⁵⁰ [PBC Deb 18 November 2021 c120](#)

²⁵¹ [PBC Deb 25 November 2021 c170](#)

Dr Whitehead said the amendment was necessary as it may prove impossible to rescue a nuclear company or to transfer its assets. He said it would be preferable for the Government to set up a new company to operate the nuclear plant, rather than continue the special administration regime in perpetuity - with ongoing RAB payments being made to a company in administration - at “substantial” cost to taxpayers and billpayers.²⁵²

The Minister said:

“I do not consider it necessary to place a statutory requirement on the Government to take ownership of a plant in the unlikely event that a special administration fails in its objectives, because the provisions for the energy transfer scheme, applied by clause 33, already serve this purpose. [...]

the Government would still retain the option to move the power plant into public ownership and, if deemed in the best interests of consumers and taxpayers, commence or continue the operation of the plant.”²⁵³

The amendment was withdrawn.

Proposals for new clauses

Five new clauses were proposed by the SNP to improve the transparency of the Bill. All were withdrawn.

- **Report on expected costs -**
New clause 1 sought to require the Government to set out “(a) the overall capital cost; and (b) the expected up-front cost of the prospective projects” before making licence modifications that would apply the nuclear RAB model to a designated nuclear company.^{254, 255} The Minister did not support this as it could impact the ability to raise capital.²⁵⁶ He also argued that “initial costs to the project under a RAB model would be very small”.²⁵⁷
- **Report on decommissioning costs**
New clause 3 sought to require the Secretary of State to publish details of how decommissioning costs will be met, including in the event of the nuclear company becoming insolvent.²⁵⁸ The Minister said that the clause could not be accepted due to the language used in its drafting. He also noted that under the Energy Act 2008, operators of new nuclear power

²⁵² [PBC Deb 25 November 2021 c171-172](#)

²⁵³ [PBC Deb 25 November 2021 c174](#)

²⁵⁴ [PBC Deb 25 November 2021 c177](#)

²⁵⁵ New clause 1 refers to clause 6(1), which is explained in paragraph 71 of the [Explanatory Notes to the Nuclear Energy \(Financing\) Bill](#).

²⁵⁶ [PBC Deb 25 November 2021 c179](#)

²⁵⁷ [PBC Deb 25 November 2021 c180](#)

²⁵⁸ [PBC Deb 25 November 2021 c183](#)

stations must have “secure financing arrangements in place to meet the full costs of decommissioning.”²⁵⁹

- **Report on proposed payments to a nuclear administrator or relevant licensee nuclear company**

New clause 4 sought to require the approval of the House of Commons before any payments are made by the Secretary of State for, or in connection with, “payments to a nuclear RAB administrator or a relevant licensee nuclear company” as a result of the special administration regime for nuclear generation companies.^{260, 261} The Minister said the clause could “hinder the effectiveness of the special administration regime”.²⁶²

- **Report on transfers under the special administration regime**

New clause 5 sought to require the Secretary of State to publish a report before transferring the nuclear company’s assets, rights and obligations to one or more companies under the special administration regime.^{263 264}

The Minister said the proposed reporting obligation was “unnecessary”, because “it is the court that appoints the time at which the energy transfer scheme is to take effect” and “sufficient transparency is already offered through the court process”.²⁶⁵ He also said that the reporting requirement might have commercial implications and affect the Secretary of State’s ability to bring the administration to an end.²⁶⁶

Other issues raised

The SNP Shadow Minister for Energy and Climate Change, Alan Brown, repeatedly raised concerns that the Bill lacks transparency. He said that:

- Clause 2 does not set out what would constitute a “sufficiently advanced” nuclear project, nor what would constitute “value for money”.²⁶⁷
- Clause 3 would allow the Secretary of State to set their own rules to judge whether or not the ‘sufficiently advanced’ and ‘value for money’ criteria had been met, and therefore the Secretary of State would have

²⁵⁹ [PBC Deb 25 November 2021 c183](#)

²⁶⁰ [PBC Deb 25 November 2021 c184](#)

²⁶¹ New clause 4 refers to clause 41 (2) (c) which is explained by paragraphs 220 to 222 of the [Explanatory Notes to the Nuclear Energy \(Financing\) Bill](#). Clause (41) (2) (c) in turn refers to Part 3 of the Bill, which sets out arrangements for the special administration regime for nuclear companies.

²⁶² [PBC Deb 25 November 2021 c185](#)

²⁶³ New clause 5 refers to clause 32 (3), which is explained by paragraphs 184 to 188 of the [Explanatory Notes to the Nuclear Energy \(Financing\) Bill](#).

²⁶⁴ [PBC Deb 25 November 2021 c186](#)

²⁶⁵ [PBC Deb 25 November 2021 c186](#)

²⁶⁶ [PBC Deb 25 November 2021 c186](#)

²⁶⁷ [PBC Deb 18 November 2021 c99-101](#)

the power to set them in such a way that would enable any chosen new nuclear project to be signed off .²⁶⁸

- Clause 3 does not adequately explain how the statutory consultation would be undertaken, the timescales that would apply to it, or how the consultation responses would be used.²⁶⁹
- Clause 7 would not provide protection and transparency for consumers in the event that the Secretary of State decided to increase the allowable costs of the project.²⁷⁰

The Minister suggested that the SNP should table amendments to address some of these issues.²⁷¹

Kirsty Blackman (SNP) also raised concerns that clause 3 provide insufficient information about whether more than one environmental agency might be consulted for any nuclear project proposed near one of the national borders.²⁷²

²⁶⁸ [PBC Deb 18 November 2021 c107-108](#)

²⁶⁹ [PBC Deb 18 November 2021 c107-108](#)

²⁷⁰ [PBC Deb 18 November 2021 c131](#)

²⁷¹ [PBC Deb 18 November 2021 c101; PBC Deb 18 November 2021 c124](#)

²⁷² [PBC Deb 18 November 2021 c108](#)