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Hinkley Point: the ‘dreadful deal’ behind the world’s most expensive power plant

Building Britain’s first new nuclear reactor since 1995 will cost twice as much as the 2012 Olympics – and by the time it is finished, nuclear power could be a thing of the past. How could the government strike such a bad deal?

Hinkley Point, on the Somerset coast, is the biggest building site in Europe. Here, on 430 acres of muddy fields scattered with towering cranes and bright yellow diggers, the first new nuclear power station in the UK since 1995 is slowly taking shape. When it is finally completed, [Hinkley Point C](#) will be the most expensive power station in the world. But to reach that stage, it will need to overcome an extraordinary tangle of financial, political and technical difficulties. The project was first proposed almost four decades ago, and its progress has been glacial, having faced relentless opposition from politicians, academics and economists every step of the way.

Some critics of the project have questioned whether Hinkley Point C’s nuclear reactor will even work. It is a new and controversial design, which has been dogged by construction problems and has yet to start functioning anywhere in the world. Some experts believe it could actually prove impossible to build. “It’s three times over cost and three times over time where it’s been built in Finland and France,” says Paul Dorfman, from the UCL [Energy](#) Institute. “This is a failed and failing reactor.”

Others have pointed to the cost. At present, the estimated total bill for Hinkley Point C is £20.3bn, more than twice the London Olympics. To pay for it, the British government has entered into a complex financial agreement with Électricité de France (EDF), the energy giant that is 83% owned by the French government, and [China](#) General Nuclear Power Group (CGN), a state-run Chinese energy company. Under this contract, British electricity consumers will pay billions over a 35-year period. According to Gérard Magnin, a former EDF director, the French company sees Hinkley as “a way to make the British fund the renaissance of nuclear in France”. He added: “We cannot be sure that in 2060 or 2065, British pensioners, who are currently at school, will not still be paying for the advancement of the nuclear industry in France.”

Many British observers agree that the deal is ludicrously favourable to EDF – “a dreadful deal, laughable” says Prof Steve Thomas, who works on energy policy at the University of Greenwich. But even insiders at EDF aren’t entirely happy with it. In the months before the EDF board finally signed off the deal in autumn 2016, the [finance director resigned](#), along with Magnin. “The Hinkley Point project remains very risky,” Magnin told me. He is particularly concerned about EDF’s ability to complete the project before the current deadline of 2025. “Why have we reached this point?” asked Magnin. “It is the construction of a house of cards.”

Not everyone has lost faith in the project. When John Hutton was business secretary in 2008, he announced that the government would encourage the “safe and affordable” development of nuclear reactors. Back then, he insisted the plants would be completed “well before 2020”, and wouldn’t receive a penny in subsidies from the British government. Today, despite those earlier promises having been broken, Hutton still lobbies for nuclear: “We’re not just creating power stations,” he told me. “We are making history.”

But the irony of Hinkley Point C is that by the time it eventually starts working, it may have become obsolete. [Nuclear power](#) is facing existential problems around the world, as the cost of renewable energies fall and their popularity grows. “The maths doesn’t work,” says Tom Burke, former environmental policy adviser to BP and visiting professor at both Imperial and University Colleges. “Nuclear simply doesn’t make sense any more.”

The story of Hinkley Point C is that of a chain of decisions, taken by dozens of people over almost four decades, which might have made sense in isolation, but today result in an almost unfathomable scramble of policies and ambitions. Promises have been made and broken, policies have been adopted then dropped then adopted again. The one thing that has been consistent is the projected cost, which has rocketed ever upwards. But if so many people have come to believe that Hinkley Point C is fundamentally flawed, the question remains: how did we get to this point, where billions of pounds have been sunk into a project that seems less and less appealing with every year that passes?

After winning the 1987 election, Margaret Thatcher's government launched plans to privatise the entire electricity market. But in the months following this announcement, it became clear that selling off Britain's three dozen nuclear units was going to pose a problem. A former civil servant closely involved with the privatisation remembered the shock of discovering the sheer scale of the risks and costs associated with the creaking first generation of nuclear plants. Whereas government policy papers could massage figures and make optimistic projections, the prospectus, which provided financial information for potential investors, could not bend the truth. "A government paper was one thing," said the former civil servant, "but if the figures were misleading in the prospectus, it was a criminal offence. That was not at all like a government paper, to be honest. It was quite a moment for us all."

By 1989, it was clear that Britain's nuclear sector would not be privatised – companies had little desire to take on the immense financial and practical risks. "The decommissioning costs are unbelievable," the former energy secretary Chris Huhne told me. "In the 50s and 60s, they built them as if they were the pharaohs building the pyramids. It was: 'We're never going to have to take them apart.'"

In 1990, as the privatisation of the electricity market went ahead, Britain's nuclear power stations moved into a state-owned company. By then, the government was already deep into the construction of Sizewell B nuclear power station, on the Suffolk coastline. Hinkley Point C was next on the list.

Six years later, the older generation of nuclear power stations were transferred into another state-owned company, while a new private company called British Energy stepped forward to take over the eight most modern nuclear power plants in the UK. As British Energy took over its ready-built assets, it announced it would let the planning consent for Hinkley Point C lapse. Taking over existing nuclear power stations made financial sense; taking on the eye-watering costs of building new ones did not. The current nuclear power stations would run until the end of their projected lifespans, and then something else would have to close the gap.

But soon after its privatisation in 1996, British Energy began to run into financial problems. By 2002, the new private company was in chaos, ultimately needing a £3bn bailout from the government. If the notion of "too big to fail" was to become a feature of Britain's banking industry, it was already baked into its nuclear business.

During Tony Blair's second term as prime minister, the Cabinet Office was tasked with reviewing the UK energy industry. When it delivered its report in February 2002, the message was clear: the cost and risk of building new nuclear power plants should be left to the private sector. "It said that although nuclear shouldn't be ignored, it was at present economically out of the question," says Gordon MacKerron, professor of science and technology policy at the University of Sussex, who was an adviser on the review.

By the end of 2003, all government policy indicated that Hinkley Point C would never be built, and there was no prospect of any other new nuclear power plants. It seemed certain that nuclear had no future in Britain – which is why, when the government performed a volte-face three years later, so many onlookers were astonished. "Without any obvious change in the world, by 2006, the position in government had been completely reversed," MacKerron told me. "Nuclear power had become extremely beneficial, important and not uneconomic."

One thing that had happened in the intervening years was a PR blitz by the nuclear industry, which had deployed scores of lobbyists, including former politicians such as the former energy minister Brian Wilson, to push the idea of a "nuclear renaissance" in the UK. Between 2003 and 2006, says Andrew Stirling, professor of science and technology policy at Sussex University, "Britain saw the beginnings of a massive pro-nuclear lobbying and PR campaign that continues to this day."

Through the media and advertising campaigns, key messages were hammered home. Renewables were intermittent and unreliable. Overseas gas imports were politically vulnerable. "Green" nuclear was the only plausible way to hit carbon dioxide reduction targets. Keith Parker, who was then chief executive of the Nuclear Industry Association (NIA), [told the New Statesman](#) that the 2005 election became a particular focus for swaying opinions. "It gave us a good chance to raise the profile of nuclear power," he said. In the months leading up to the election, a series of talks was organised at exclusive venues such as the Army & Navy Club on Pall Mall and St Stephen's Club in Queen Anne's Gate. Industry leaders and experts came together to explain the benefits of nuclear to politicians and energy journalists. The NIA (which is now chaired by John Hutton) took on the role of managing the influential all-party parliamentary group – an informal grouping of politicians – on nuclear energy.

In July 2006, the government U-turn arrived in the form of a new policy paper, [The Energy Challenge](#), which declared that new nuclear power stations would be necessary to help Britain reduce its carbon emissions and to ensure an uninterrupted, affordable supply of energy well into the future.

Greenpeace launched a legal challenge, claiming that the consultation process behind the government's recommendation had been totally inadequate. The judge presiding over the case agreed, and [in February 2007 ruled](#) that the process had been "misleading", "very seriously flawed" and "procedurally unfair". Blair accepted the ruling, but stated that "this won't affect the policy at all".

Andrew Stirling believes that there was a crucial, largely unspoken, reason for the government's rediscovered passion for nuclear: without a civil nuclear industry, a nation cannot sustain military nuclear capabilities. In other words, no new nuclear power plants would spell the end of [Trident](#). "The only countries in the world that are currently looking at large-scale civil power newbuild programmes are countries that have nuclear submarines, or have an expressed aim of acquiring them," Stirling told me.

Building nuclear submarines is a ferociously complicated business. It requires the kind of institutional memory and technical expertise that can easily disappear without practice. This, in theory, is where the civil nuclear industry comes in. If new nuclear power plants are being built, then the skills and capacity required by the military will be maintained. "It looks to be the case that the government is knowingly engineering an environment in which electricity consumers cross-subsidise this branch of military security," Stirling told me.

In May 2007, the government [published a paper](#) titled "Meeting the energy challenge: a White Paper on energy", which reaffirmed its enthusiasm for nuclear and declared that there had been "significant changes in the economics of nuclear power". In contrast to the late 1980s, the government claimed it was now being approached by "some energy companies expressing a strong interest in investing in new nuclear power stations".

When Gordon Brown took over from Blair in June 2007, the shift to nuclear proceeded apace. As it happened, the new prime minister's brother, Andrew, was then the communications director for EDF, though a spokesman for Gordon Brown told me that at no point while he was prime minister "did he ever discuss energy policy with Andrew Brown".

In January 2008, the announcement came. A new generation of nuclear power stations in the UK was given [formal backing](#) by the government. "It was one of the most exciting days in my ministerial life," says Hutton. "Ministers do lots of important things all the time, but there are probably those moments in your ministerial career when you sit back and think: 'Actually, this is going to have an intergenerational effect. This is going to affect the country 50, 60, 70 years after I've gone.'"

The development at the top of the list was Hinkley Point C.

Just as it looked like Hinkley Point C would go ahead, the banking crisis erupted. "The crash pretty well changed everything," Hutton told me. The private companies, such as E.ON and Centrica, which had previously expressed interest in funding the new nuclear power plants, pulled out. If the UK government wanted to go ahead, it would have to pay for the power plants itself. This was a complete departure from its previous insistence that the private sector would shoulder both the development costs and risk. "It was agreed on one basis, and then they moved to another," says Molly Scott Cato, the Green MEP for the south-west of England.

Despite the financial chaos, the government was still determined to make Hinkley work. "There had to be a different route found," Hutton said. The key piece of the jigsaw was British Energy. The company, which had been pulled back from near-collapse by the government in 2002, owned many of the best sites for building new nuclear power stations. If the government wanted private companies to build nuclear power stations, it would have to sell British Energy to one of the companies.

Various purchasers were considered for British Energy in 2008, with EDF the keenest. "At one point, we tried to get Centrica and British Energy to work together," said a former senior civil servant. "But the department very quickly realised it would be like two drunks leaning together for support. EDF was the best bet." With no real plan B after the private sector had lost interest in Hinkley Point, the government suddenly found itself in a weak negotiating position. "They perhaps didn't foresee that only one developer, EDF, was prepared to go ahead," said MacKerron. "So by definition, they were a bit over a barrel."

In September 2008, British Energy was sold to EDF. After months of long and difficult negotiations between EDF and a team of civil servants representing the UK's interests in British Energy, and an earlier failed bid, the

French company [paid £12.5bn](#) to take over eight UK nuclear power plants. It also announced its plan to develop four new power stations.

These days, EDF looks like an unlikely white knight. The market value of the company has collapsed, from more than €150bn (£132bn) in 2008 to roughly €30bn (£26bn) today, and the French nuclear industry is facing [an existential crisis](#). Because many of the 58 nuclear reactors in France were built in the 1970s, they are now reaching the end of their lifespan simultaneously. Not only is France's nuclear industry facing the costs of decommissioning, which were grossly underestimated, but almost no new nuclear power stations are being built. At present, nuclear energy provides about 75% of France's electricity, so the potential for a disastrous energy shortfall is growing by the day.

To make matters worse, EDF's attempt to build its first new nuclear power station for years has turned into an embarrassment. [Flamanville](#), on France's northern coast, has been beset by overruns since construction started in 2007. It is currently projected to cost €10.5bn (£9.2bn) – a steal compared to Hinkley, but still three times its original budget. The Flamanville reactor is a new European pressurised reactor (EPR), the same troublesome design that is planned for Hinkley.

Magnin, the director who resigned from the board of EDF last year, told me that the company sees Hinkley Point as critical to proving "that nuclear and EDF are still a reality for the 21st century". He added: "If it works, it could be good business. But there is a risk that it won't work, and then everyone loses."

The financial deal that EDF struck with the British in October 2013 to fund the project – which, in Magnin's words, amounts to the British taxpayer funding France's energy needs – remains one of the most controversial elements of the Hinkley deal.

Given its commitment to building Hinkley Point C, the government had no choice but to make EDF an offer that was too good to resist. It offered to guarantee EDF a fixed price for each unit of energy produced at Hinkley for its first 35 years of operation. In 2012, the guaranteed price – known as the "strike price" – was set at £92.50 per megawatt hour (MWh), which would then rise with inflation. (One MWh is roughly equivalent to the electricity used by around 330 homes in one hour.)

This means that if the wholesale price of electricity across the country falls below £92.50, EDF will receive an extra payment from the consumer as a "top-up" to fill the gap. This will be added to electricity bills around the country – even if you aren't receiving electricity from Hinkley Point C, you will still be making a payment to EDF. The current wholesale price is around £40 per MWh. If there had been no inflation since 2012, the consumer would be paying an EDF tax of around £52.50 per MWh produced at Hinkley. However, because it is linked to inflation, the strike price has already risen since 2012. (The price will be reduced by £3 if EDF develops another new reactor in Sizewell in Suffolk, as it is [planning to do](#).)

In short, instead of using taxpayers' money to fund a state subsidy for EDF, the government negotiated a deal whereby the electricity consumer foots the bill. Given that almost every taxpayer in the UK is an electricity consumer, the distinction is largely academic. Furthermore, people in a lower tax bracket often use a similar amount of electricity to higher earners, effectively creating a regressive tax. "The strike price was set when power prices were very high. They signed the contract when there was a bubble," Juan Rodriguez, an analyst at equity research firm AlphaValue, told me. "It's a brilliant deal for EDF." (By contrast, the Department for Business, Energy and Industrial Strategy maintains that "the government negotiated a competitive deal". A spokesperson from EDF told me: "The UK Government agrees that Hinkley will provide value for money for consumers and that the overall costs of the electricity system are lower with nuclear as part of the mix than without it.")

The deal looks particularly bad when compared with the current cost of renewable energy. As Hinkley's pricetag keeps rising, the cost of energy keeps falling. And, as a recent report from the public accounts committee pointed out, although energy costs are falling, this just drives up the top-up payment to EDF. "No one was protecting the interests of energy consumers in doing the deal," [the report noted](#).

In December 2013, the European commission decided that the payments to EDF were so big that they could distort the electricity price across the whole of Europe, and launched an investigation into the deal. The resulting document, published in 2014, can be read as a 33,000-word attempt by the EU to save the UK from its own poor negotiating.

The commission raised several issues. First, it stated that the payout to EDF would give the company a huge and unjustifiable advantage over its competitors. The strike price agreement was designed “to entirely eliminate market risks from the commercial activity of electricity generation”.

Second, it noted that EDF has been meticulous in passing on as much risk as possible to the British government. The contract included a state guarantee for any debt that EDF required from the financial markets to fund construction of the plant. Separately, if a nuclear catastrophe hits Hinkley, EDF is also protected. “We’re insuring it, so if there is a disaster, it comes back to the public,” says Molly Scott Cato, the MEP. “Nuclear never has and cannot exist in a private market setting.”

One of the most serious concerns in the EU’s assessment was over the calculations for the “gap” between the wholesale energy price and the strike price. That gap is currently around £50. Once Hinkley starts operating, the European Commission pointed out, EDF’s market share will be so substantial that it could have the ability to manipulate the wholesale electricity market. Depending on how the strike price is calculated, there might be an “incentive”, the commission noted, for EDF to “behave strategically” to “influence the reference price”. For instance, if EDF abruptly sold a lot of electricity on to the market at a pre-planned time, the wholesale price could drop substantially. The lower the wholesale price, the bigger the difference from the fixed strike price, and therefore the higher the “EDF tax” paid by consumers. As the commission put it, there remained a question over how a “vertically integrated operator” might “react to such an incentive framework”. EDF will have a duty to its shareholders to maximise its profits. But as the commission makes clear, at the same time, the company will have the capacity to move the wholesale electricity market at certain precise times, in a way that could benefit shareholders substantially.

EDF declined to comment on this point. A spokesman for the Department for Business, Innovation and Skills said that the energy regulator, Ofgem, would be responsible for oversight of the wholesale electricity market. “They have a variety of investigatory and enforcement powers at their disposal for the detection and prevention of price manipulation by market participants,” said a spokesperson.

Given the European commission’s concerns, the UK adapted its plans, slightly tilting the agreement with EDF so that the profits generated by the project will be better shared with UK consumers. Nonetheless, serious questions remain about how the strike price was calculated, and there has been a long battle to force the government to publish the documentation used to justify that price. In 2012, as it was preparing to negotiate the strike price with EDF, the government hired the consultancy firm LeighFisher to assess construction costs for Hinkley. The higher the cost estimated by LeighFisher, the higher the strike price for EDF.

However, as the National Audit Office [pointed out](#) in June 2017, LeighFisher is owned by Jacobs Engineering Group. And at the same time that LeighFisher was assessing Hinkley Point construction costs, Jacobs was working for EDF, with some of its staff seconded to the French company. The National Audit Office points out that Jacobs staff were having “input” into LeighFisher’s cost verification exercise.

In short, a division of a company employed by EDF was advising the UK government how much to pay EDF. The Department of Energy & Climate Change first identified the potential conflict of interest in 2012, but it wasn’t until August 2015 that the department sent a letter to LeighFisher asking the company to ensure “organisational separation” on the project. The government also requested monthly updates on the arrangements, but the NAO says it did not receive these. In October 2015, two years after the strike price was agreed, LeighFisher signed the agreement for organisational separation, which included “ethical wall arrangements”.

I recently called the number on LeighFisher’s website to try to learn more about how they put this “ethical wall” into practice. “Good morning, Jacobs,” answered the woman on the other end of the line. When I asked to speak to someone at LeighFisher, the woman responded, seemingly in confusion: “We’re not part of them.” When I emailed LeighFisher, someone from the Jacobs press office responded: “LeighFisher has forwarded your enquiry as they do not have a Communications team.” It was unclear how “organisational separation” was being achieved.

In an email from a Jacobs account, a spokesperson stressed that “LeighFisher fully disclosed its relationship with affiliated entities in the UK and put in place robust procedures to address confidentiality and to maintain separation between LeighFisher and its affiliates in the UK. LeighFisher managed the work and resources in accordance with agreed protocols throughout.” A spokesperson for the Department for Business, Energy and Industrial Strategy told the Guardian: “LeighFisher confirmed to the Department that there was no conflict of interest between the teams, and no employees from Jacobs were involved with advisory work for the Department.”

In October 2014, the UK government's amended plan was accepted by the European commission. A spokesman for EDF said: "The European commission carried out a detailed, 10-month investigation into the Hinkley deal and agreed that it was compatible with EU state aid rules. Gain share mechanisms to prevent EDF from making too much profit from Hinkley Point C were strengthened."

Austria is in the process of [suing the European commission](#) for signing off the Hinkley deal, saying that state aid should only be supplied in exceptional cases. "Nuclear power is the technology of the past. We should not keep it alive artificially with government subsidies," Andr  Rupprecht, Austria's minister of agriculture and forestry, environment and water, told me.

When I inquired in the summer, the EDF press office told me it would not be possible to visit Hinkley Point. Fortunately, it turned out that EDF runs free "meet the neighbours" tours of the development for Somerset locals, so I – only slightly surreptitiously – joined a busload of local pensioners on a tour.

There had been a storm the night before my visit, and the site was a series of muddy puddles. As the bus made its way around, it became increasingly clear that the development was nowhere near where it was projected to be. "To be honest, it is just a lot of earth at the moment," said one of the tour guides, staring out of the window. ("EDF was saying we would be cooking our Christmas turkeys on Hinkley electricity this year, and now they are clinging on to the 2025 dates," says Prof MacKerron. A few days before my visit to Hinkley Point, EDF had [admitted it was at least  1.5bn over budget](#), and that the project could be completed 15 months behind schedule.)

Hinkley Point C will be the third nuclear reactor to be built on this site. These days, its oldest brother, Hinkley Point A, which began operating in 1965 and was decommissioned in 2000, is dilapidated, with large holes gaping in its blue walls. Hinkley Point B, which began operating in 1976 and is scheduled to be decommissioned in 2023, stands 300 metres to its right – an anonymous grey hulk, disappearing against the sky, as steam from its huge chimneys floods into the clouds.

As the tour proceeded, the guide reeled off statistics about the project. Some 4.2m tonnes of earth will need to be moved around the 430-acre site. The 6.5km perimeter fence is now complete, with around 12,000 trees to screen local villages, including one called Shurton and one called Burton. She pointed out a digger that can fill a 100-tonne dumper truck in three bucket scoops. "One bucket was replaced recently, and that cost  70,000," she said.

Some of the logistical difficulties involved in building Hinkley Point C are so elaborate that they resemble satire. This part of Somerset is home to a flourishing population of at least eight different sorts of bat, including one of the last remaining colonies of barbastelle bats, which are protected by strict wildlife laws. EDF were given permission to cut down the trees that are home to the bats, only on the condition that they would be replaced by movable trees in huge boxes. Every morning, the "bat trees" are dragged out of the way for construction work, and every night they are moved back so the bats can find their specially built house.

"I don't quite understand it," one EDF employee wearing a hi-vis jacket said. "The bats have a sort of radar." At least the bats are less hassle than the badgers, she added. The badgers have been moved a field away, but are in denial. They have footage, she said, of a badger climbing a fence to get back to its old sett.

After just about stumbling through the European commission's investigation, there was one more bump in the road for Hinkley. In September 2015, George Osborne – whose father-in-law, David Howell, as energy secretary under Thatcher, had first proposed new nuclear power plants for the UK back in 1979 – held a press conference in Beijing.

Standing next to the Chinese vice-premier, Osborne – then chancellor of the exchequer, now the editor of the Evening Standard – announced that China would be investing in Hinkley Point as part of a  2bn deal. The state-owned China General Nuclear Power Group (CGN) would own a third of the project. According to one source who worked on the deal, Osborne's deal was structured as a "first step" in a grand plan for CGN to roll out [a string of nuclear plants](#) in the UK.

Many commentators were alarmed by the deal Osborne had struck. CGN has established itself as a ruthless player on the world stage. Last year, a senior adviser to the company was accused of [trying to obtain](#) sensitive US nuclear technology for China. One Foreign Office source who has worked on US and Asian issues noted that while "America spends all its time trying to keep them [the Chinese] out," by contrast, "we have literally invited

them in. No one really knows what they will do.” (Others are less concerned. “People worry about intellectual property, but what intellectual property do we have?” said one source closely involved in the negotiations with CGN. “I suppose they could have the Sizewell B blueprints, but they’re a bit dusty and no one can remember how to read them.”)

Whatever the potential costs, for EDF and the British government, CGN’s involvement may have been essential to the viability of the whole project. The UK was in a bad negotiating position, as it seems likely it could not do without Chinese expertise in building the Hinkley reactor. “There is an argument that this reactor is essentially unbuildable,” said Tom Burke, the energy policy expert. EDF says several reactors of this kind are close to completion in other sites around the world, and that construction at Hinkley is making great progress.

If anyone can do it, it is the Chinese, who have established themselves as world leaders in the complex engineering challenges involved in building nuclear power plants. (There were 20 reactors under construction in China at the end of March 2017.) One of the central challenges is pouring the concrete – 3m tonnes in total – needed to build not only the massive foundations but also the vast biological shield around the reactor, which reduces the radiation to levels safe for humans. “You’d think it was straightforward, pouring concrete, but it’s actually quite touchy-feely, and doesn’t always go as you’d like,” said one source with knowledge of the build. “The Chinese are very, very good at pouring concrete.”

When Theresa May became prime minister in July last year, one of her first acts was [to pause Hinkley](#). The delay took EDF, whose directors were preparing to sign contracts, by surprise. But it was only a short pause, and just three months later, Hinkley was back on.

Several times during the research for this article, when people I spoke to tried to illustrate the impact of Hinkley Point C, they referred to future generations. “This is going to be something that my great-grandchildren might possibly work on,” Hutton told me. “My grandchildren will be paying for this,” Allan Jeffery from [Stop Hinkley](#) told me, as we walked around the outer boundary of the site earlier this year.

The government estimates that the Hinkley top-up payments will cost consumers around £30bn over the course of the 35-year contract. One of the few figures on a comparable scale is the Brexit divorce bill.

The story of Hinkley point contains another echo of – or perhaps a warning for – the Brexit negotiations. With Hinkley, even though the UK’s position got steadily worse, at no point did the government seriously try to force the terms of the deal. It simply couldn’t, because it had backed itself into a corner. The government believed it needed Hinkley, and the civil servants saw themselves as just filling in the detail. “If we had tried to squeeze the terms more, I genuinely think the chances of the deal surviving would have been negligible,” Stephen Lovegrove, the former permanent secretary for the Department for Energy and Climate Change, told MPs in October 2017, as part of a parliamentary inquiry into the financing of Hinkley Point. “This deal is a very good one within the policy constraints of the time,” he said.

<https://www.theguardian.com/uk-news/2016/feb/11/trident-the-british-question>

Trident: the British question

The stakes of the Hinkley deal were also high for both China and France, and neither country gave an inch. When it came to the crunch, the UK’s negotiators had to take the deal they were offered. “The issue now is that nobody has a good exit strategy,” says Prof Steve Thomas. “I think everyone wants out. But there are penalties to pay now, and there is the humiliation of 10 wasted years.”

Despite all of the difficulties associated with nuclear energy, a spokesperson from the Department for Business, Energy and Industrial Strategy told me that the government still believes nuclear is essential to securing Britain’s energy future and reducing carbon emissions. It is currently trying to edge forward nuclear projects at [Wylfa in Anglesey](#), Moorside in Cumbria and Bradwell in Essex, but each of these would require complex new negotiations. In early December, the energy minister Richard Harrington announced new funding for research into a smaller network of nuclear reactors, branding nuclear power detractors as “naive and simplistic” for believing that wind power could replace the older tech. The detractors, however, are beginning to believe that vast nuclear projects will be defeated by economics alone.

“We hope that this will be the last nuclear reactor built in Britain,” Allan Jeffery said, as seagulls screamed far above Hinkley Point C. “Anything else is madness.”