

Spotlight

Thought leadership and policy

Sustainability: The road to Cop28

Chris Skidmore
Pierre Friedlingstein
Alex Sobel





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For King and climate

Every country has its quirks. The pomp and ceremony of unwritten conventions and codified constitutions led to Beyoncé serenading a re-elected President Obama on the steps of the Capitol Building in 2013. In Greece, bearded orthodox priests open a new parliament with a Byzantine chant. In the UK – during the first King’s Speech in seven decades – we were treated to the odd spectacle of a lifelong environmentalist telling a room full of ermine-cloaked lords that the UK will soon be granting scores of new oil and gas licences.

The incongruity of Charles’s personal beliefs with his government’s net zero-sceptic legislative agenda is made all the more obvious by the fact that he will be delivering the opening speech at the upcoming Cop28 climate change summit in Dubai. The King, given the green light by Downing Street, will likely use the occasion to repeat the messages he gave in Cop26 in Glasgow, or in Cop21 in Paris: we need to be on a

“warlike footing” against climate change, with a “military-style campaign” and “trillions, not billions” of dollars committed to the cause.

But it’s becoming increasingly difficult to square the circle of Britain’s much-touted “climate leadership” credentials and the actions of the current government. The approach to the climate emergency advocated so forcefully by Charles enjoyed cross-party support until recently. At least in rhetoric, if not fully in reality, both the Prime Minister and the official opposition agreed on robust actions and planned interventions to achieve net zero by 2050.

Rishi Sunak’s U-turn on many of those pledges has attracted criticism both from his own benches (see Chris Skidmore, the net zero tsar, on page 4) as well as condemnation from sustainability experts. It leaves the country’s climate leadership in tatters at a pivotal moment for the fight against global warming. Temperatures this year are the hottest on record, just a fraction below the 1.5°C warming limit imposed under the Paris Agreement.

Waiting in the wings, the opposition (see pages 8-11) will be wondering how best to repair the UK’s record on climate action if it wins the next election. At Cop28 this month, it has the opportunity to build alliances with likeminded leaders and repair Britain’s reputation. ●

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A View from Parliament



Chris Skidmore MP
Former government net zero
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“Britain is slowing down while the rest of the world surges ahead”

In September, the Prime Minister managed to send a signal on net zero that undermined Britain’s competitiveness, destabilised business confidence, and betrayed a manifesto promise to the very voters that swept the Conservative Party to power in 2019 on the back of a historic majority.

Rishi Sunak’s decision to row back on key net zero policies risks locking in higher energy bills, costing jobs and leaving the UK trailing behind in the green industrial revolution. But an army of ambitious local leaders are determined not to let that happen.

The recent reversals on electric vehicles, energy efficiency and the cancellation of the second leg of HS2 is a slap in the face to the companies and investors who have put their faith in the UK’s ambitious climate strategy. Multinational businesses have invested billions in the roadmap set out by successive Conservative prime ministers: they have just had the rug pulled from under them. And even the most stridently apolitical have spoken out, from Ford to Eon.

These companies and others will now be looking to take their investments and innovations elsewhere. The jobs desperately needed to boost our productivity and manufacturing industries will now go abroad to countries like the US, where the Inflation Reduction Act is turbocharging the green economy. Britain is slowing down while the rest of the world surges ahead to cash in on the green wave.

Blaming the slow-down on the cost-of-living crisis is disingenuous. The Prime Minister has inarguably diagnosed a real problem in the country, but the prescription is based on a false economy.

We’ve seen this kind of myopic solution before: the Prime Minister’s announcement had echoes of David Cameron’s 2013 volte-face on climate policies in a bid to “cut the green crap”. Cameron wanted, like Sunak, to slash policies aimed at boosting energy efficiency. Britain has some of the draughtiest homes in Europe, but until the axe fell in 2013, it also had a world-class home insulation programme aiming to deliver more comfortable and affordable homes. Insulation rates fell by over 90 per cent as a result of Cameron’s move, and they have never recovered since. His decision added £1.5bn to households’ energy bills last year, keeping them hooked on a volatile international gas market. It is one of the reasons the energy crisis hit Britain so hard – the price of gas skyrocketed after Russia invaded Ukraine. If the gas crisis taught us anything, it’s that we need to wean ourselves off an energy source whose price is tied to the whims of brutal totalitarian regimes.

Instead, scrapping common-sense policies that would ensure homes for millions of renters are more comfortable and affordable by making landlords responsible for basic energy efficiency upgrades

MARTA SIGNORI

(while also pushing back the phase-out of increasingly expensive-to-run new petrol and diesel cars) will only prolong the UK's exposure to volatile fossil fuel markets. It will increase costs today and for years to come.

I admire Rishi Sunak's desire to be honest with the public. That means acknowledging that costs exist, but also that they are dwarfed by the costs of delay and inaction. It means major infrastructure projects being evaluated rationally, not scrapped halfway through construction. According to economists, the cost of delaying action will fall hardest on those least able to pay, and according to scientists, Britain will fail to meet the world-leading targets I was proud to sign into law in 2019.

It also means being honest that net zero is happening with or without the UK government's support. Clean energy is now cheaper than fossil fuels. Last year, the International Energy Agency reported that investment in solar outstripped oil and gas for the first time ever. The transition is accelerating and cannot be stopped.

And that's just as true locally as it is globally. In September, the Local Mission Zero Network, chaired by the Conservative mayor for Tees Valley, Ben Houchen and myself, launched its new report, "The Future Is Local". It highlighted the vital role that local governments are already playing in delivering on the UK's climate promises.

By working with stakeholders up and down the country, including groups like UK100, the UK's only cross-party network of local leaders committed to ambitious net zero action, "The Future Is Local" highlighted how ambitious councils and combined authorities, from Cornwall to Greater Manchester, are already leading the way on net zero at the local level despite barriers put up by Whitehall and Westminster.

If central government isn't going to step up, it should – at the very least – get out of the way of local leaders and let them lead the charge on progress.

That means consolidated, long-term funding tailored to local areas rather than short-term competitive bidding pots. It means planning reforms are urgently needed so developments cannot be rejected for exceeding national standards on issues like energy efficiency. And it means introducing a Local Net Zero Charter between central and local government, so councils have the powers and incentives to drive progress in collaboration with their communities.

Instead of helping realise this vision, however, "The future is local" found that local leaders are drowning in Kafkaesque policies and innumerable piecemeal funding pots. Local leaders are in desperate need of a life raft. While political pressure is building on the Prime Minister to do the right thing and steady the national net zero ship, he also needs to remember it is local action that is keeping it afloat. ●

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Quantifying climate

The head of Aon's Climate Risk Advisory team on new approaches to risk

In association with



The planet's climate is changing. We're witnessing temperature records being broken every few months. Extreme weather events are becoming the norm. Even as governments try to manage the transition, industry needs to understand the risks and adopt extensive climate mitigation strategies, or risk serious impacts on their property and people.

Keeping global heating to below 1.5°C above pre-industrial levels is one of the most important efforts humanity has ever undertaken. But even as we pursue that with singular resolve, the UK's public and private sectors must understand and manage climate risk more effectively.

To discuss how all this affects industry, we sat down with Liz Henderson, head of Climate Risk Advisory at Aon.

Could you tell me how Climate Risk Advisory has augmented Aon's long-standing climate work?

Aon has been working with insurers for over 30 years on how to manage catastrophe risk. This includes understanding the impact on climate both today and in the future. Our decision to set up Climate Risk Advisory was driven by an acceleration in demand for climate risk analysis.

What we're finding more and more is there is a significant need in financial institutions, the public sector, construction, and other corporates for both data and advice to help them make better decisions. Plus, there's a significant amount of work around the impact of climate, with new regulations around the world. In response, at Climate Risk Advisory we need to stay nimble and stay on top of those changing dynamics to be able to quickly bring our clients insights when they are most in need of them.

Far too often, risk is the last thing you're thinking about when working out where to put a new warehouse, or where to build a solar farm. We can start to help our clients to think about risk first and understand it in a holistic way.

You're now working with public sector and financial institutions. Do your traditional engagements with insurers transfer to these new sectors?

We tailor our work to address the specific needs of each client. If you don't do a good job at collecting information about your assets, then you're creating a lot of

uncertainty in your decision-making. Any resilient risk management programme will have to consider all sources of uncertainty and create a framework which can be applied to the data and to decision-making.

The challenge that we often face is in helping customers implement information in a way that is helpful to their decision-making. If you have understood the risk, there is often a challenge of thinking “OK, what do I do now? How do I move forward?” That’s where things can get really exciting and much more impactful, but we have to build ourselves up to get there.

Once the risk is understood, it is often crucial to involve insurance in the process in order to reduce and mitigate the volatility caused by climate effects.

Has Aon reorganised itself internally to facilitate this new approach?

What we have learned by thinking about climate risk is that we need to embed more data and analytics across our services for many more clients.

A common theme when we’re talking to clients in every industry about risk is analytics. So, we have reorganised our business around risk capital and around human capital. A good understanding of your risk can lead to better outcomes, and bring new capital into the solution. Leveraging analytics can unlock capital – and open new markets for clients, as we saw in the mortgage credit space.

We know that conversations about climate – among other things – are driving demand for solutions. So, our reorganisation is combining capabilities and helping us to be better at scaling analytics to support strategic planning, event response and a changing climate.

Aon is approaching advisory in this area through the lens of risk and capital, and thereby delivering solutions in a connected way across data, advisory and placement to reduce volatility and shape better decisions around climate.

How does Climate Risk Advisory utilise other technology and capabilities, such as catastrophe modelling and Aon’s global academic partnerships?

That goes back to the practice that we’ve built up in the insurance industry of understanding the pros and cons of any single solution. Our approach has always been to provide our clients with multiple views. Our team understands the old



adage that some models are useful, but all models are wrong. And what we’re finding is that access to multiple views, and helping our clients get their heads around multiple views, is really beneficial to anybody who is making a decision about climate. The other thing we have recognised is we need to understand that climate science and climate data is changing every day. What we knew five years ago is completely different to what we know today, and what we will know five years from now. This is not a challenge that is at a single point in time, it’s something we constantly reanalyse.

With our wide range of global academic collaborations, our goal is to fund the research that is so essential to helping people understand climate change. We don’t live in a world where global mean temperature means something to an individual, we live locally. Bringing knowledge down to a local level is hard. But we want to accelerate that understanding because it’s so important to decisions we make.

We believe that through leveraging the advances made by academic research, companies can develop more robust climate risk resilience.

As we move towards Cop28 what will be the key themes under discussion, and how can climate risk advisory further the conversations?

One of the key things will be the question of data, and how do we get better and more accurate data into the hands of decision makers. Better data will help us to facilitate the green transition. We can look at solutions such as carbon capture and storage and ask what do we actually need to invest in these things? How can we unlock the investment capital?

Another will be starting to understand the impact of extreme weather events on humans, particularly how heat affects people and businesses in a much more extreme way than we have previously considered. Heat is the number one climate peril for humans, by a significantly large margin, and awareness of that has always been there. But what’s happening now is society quantifying how heat will affect human productivity, health and well-being. These are the building blocks we need to create so that we can accelerate the transition. ●

Liz Henderson is head of Aon’s Climate Risk Advisory team

“On the outside, looking in”

With an election looming, can Labour use Cop28 to its advantage?

By Megan Kenyon

Cop28, which takes place at the end of this month in Dubai, falls at a pivotal moment for climate action in the UK and internationally. Earlier this year, Prime Minister Rishi Sunak rowed back on the UK’s net zero commitments, insisting that he was being “honest” with the British people in doing so. And the King’s Speech on 7 November included giving the green light to new oil and gas licences. Meanwhile, extreme weather events have wreaked havoc across the globe in recent months – from major storms in the UK to devastating wildfires in Greece. September 2023 was the most anomalous warm month globally since records began.

The UN climate summit also comes at a pivotal moment for the Labour front bench. In the aftermath of a mildly eventful party conference, and with an ongoing lead in the polls, Cop28 is an opportunity for the shadow climate change and net zero secretary Ed Miliband and his team of shadow ministers. The conference could be a dress rehearsal for the party if it wins next year’s election: if the vote is held ahead of Cop29 next year, it could be Miliband and his team stepping up to the negotiating table on behalf of Britain.

In practical terms, the shadow climate cabinet must get to grips with how Cop operates. Alex Sobel, the Labour MP for Leeds North West, and chair of the Net Zero All-Party Parliamentary Group (APPG), explains that because “this will be the last Cop before the general election” it’s really important that the shadow cabinet use this as an opportunity to “understand how Cop works” and “involve themselves in Cop discussions which intersect with their shadow brief”.

Sobel is a Cop veteran – this year will be his seventh. So is Miliband who, as Sobel points out, having been Gordon Brown’s climate change secretary, is “more experienced at Cop than any other politician of any other party in the UK, other than perhaps Alok Sharma”. This year the party will be “on the outside looking in”, but must use this year to prepare to be “on the inside looking out” at Cop29.

It can be difficult for an opposition party to cut through at the annual climate summit, however. “It’s obviously very much a convening of governments,” notes Mathew Lawrence, director of ▶



◀ the Common Wealth think tank, “Opposition parties often find these events tend to be quite dominated by what the government is doing.”

The priority for Labour should be “building relationships with key international partners and allies”, Lawrence tells *Spotlight*, and working out how a potential future Green Prosperity Plan might be “complimentary” to international equivalents. This is particularly the case in light of President Joe Biden’s Inflation Reduction Act (IRA), which has become the world’s dominant example of green economic policy.

All eyes have been on Labour to produce a British incarnation of the IRA, which has channelled federal spending worth around \$400bn towards renewables since it was signed into law in August 2022. So far, Labour’s answer has been the Green Prosperity Plan, which includes the creation of a new nationally owned energy company – Great British Energy – to accelerate renewables and improve the UK’s energy security. The plan, which was initially set to be backed by £28bn of borrowed investment and begin at the start of a Labour government’s time in office, was delayed by shadow chancellor Rachel Reeves, earlier this year. Funding is now set to build up gradually to £28bn within the first half of the parliament.

Indeed, polling reveals voters may still need some convincing of Labour’s commitment to the green transition. A survey by Ipsos Mori in July looking at public attitudes to the government’s action on climate change found less than three in ten respondents thought Labour would do a better job. Almost half of those polled said they thought the party would do “about the same” as the current government, with 15 per cent saying a Labour government would be worse than the Tories on climate change.

Setting out a clearer idea of Labour’s plans for the green transition is vital not only domestically – it is essential to improving the UK’s global image on tackling climate change. Recent announcements from the Sunak government, such as delaying the phase-out of petrol and diesel cars from 2030 to 2035, and the inclusion in the King’s Speech of a bill to allow new oil and gas licences in the North Sea, have damaged the UK’s international

standing as a constructive force for reaching net zero.

A source close to Miliband explains that this will be the shadow cabinet’s priority at Cop. They do not plan to give more details of domestic policies. Rather, they will use the conference as an opportunity to show the international community that the party is serious about reinstating Britain’s role as a climate leader. They see Labour’s job at the conference as proving that the UK can be a confident, competent and stable partner for rebuilding the international climate consensus.

But to retain global credibility, Labour may need to set itself against the licencing of new oil and gas reserves. With major unions arguing that phasing out exploration will be bad news for workers, so far the party has said that while it will not take out any new licences it will respect existing ones. This leaves the highly controversial Rosebank oil field on track to go ahead.

A good group for the shadow cabinet to get involved in while at Cop28 is the Beyond Oil and Gas Alliance, says Maya Singer-Hobbs, senior research fellow at the Institute for Public Policy Research think tank. Currently co-chaired by Costa Rica and Denmark, the alliance is a coalition of governments and stakeholders working to facilitate the managed phase-out of oil and gas production. Members include France, Ireland and Portugal, but not the UK.

Entering into a dialogue with the countries currently engaged in the alliance could prove fruitful for the shadow cabinet, both optically and in terms of developing their own practical solutions for phasing out fossil fuels. “If Labour wants to form the next government,” says Singer-Hobbs, it “should use Cop28 as an opportunity to engage with countries that have made the commitment to phasing out oil and gas and ask them how they have worked out its sequencing and timing.”

Polling shows that many voters still need convincing

A source close to the shadow energy secretary explains Labour has already mooted the creation of a Clean Power Alliance. This would bring together like-minded countries that are trying to go further and faster on the transition away from fossil fuels.

Reasserting the UK’s leadership on international development is another matter for Labour to think about – and an opportunity that Cop28 may provide. Alex Scott, climate diplomacy and geopolitics lead at the environmental think tank E3G, says it’s “really important that [Labour] are loud on the UK’s own domestic credibility, and their own net zero policy”.

Scott explains Cop28 is a chance for the party to build coalitions with other governments, and to reassure the international community that a Labour government will “fix the mistakes” the incumbent government has made.

“We really need to see [Labour] set out a vision for how the UK can become a credible global actor,” Scott says. This will partly need to be through bringing international development policy back to the “leadership levels” that the UK has had in the past, including reinstating the 0.7 per cent of gross national income (GNI) spend on international aid.

This target was slashed in 2021 to 0.5 per cent by Sunak when he was chancellor. In early October, when asked about Labour’s position on development spending, shadow international development secretary Lisa Nandy said reinstating the 0.7 per cent spend would not be a day-one priority for a Labour government.

“Labour have been sheepish on the 0.7 per cent GNI. I can understand where that sheepishness comes from,” says Scott, “but we need to see a real vision for how they’re going to shift development policy so that it enables developing countries to sign on to the economic opportunities of the green transition.” Scott suggests Cop28 is the perfect place to share this vision.

A conversation will need to be had around “who’s got the solution? Where is the funding coming from? And how quickly can it be delivered?” Sobel says.

In Madagascar, for instance, where Sobel has done some work in his role as chair of the Net Zero APPG, “one of the issues around deforestation is people literally chopping down trees for



Shadow climate change and net zero secretary Ed Miliband at Cop26 in Glasgow

firewood". He explains that a key question for Cop28 will be working with developing countries to offer support around the transfer of new technologies and techniques to tackle climate change. This could include the transfer of green technologies to places like Madagascar, including "solar stoves" to allow communities to cook food without needing to fell trees and use timber.

Indeed, another key discussion set to take place at Cop28 will be around the new loss and damages fund. This pot of money will help cover the cost of climate-related damage that cannot be adapted to or mitigated against. A blueprint plan for the fund – which was first agreed last November at Cop27 in Egypt – was drawn up during a two-day meeting earlier this month under UN guidance. It will need to be voted on by countries during Cop28 in order to be fully adopted.

Singer-Hobbs tells *Spotlight* that seeing Labour commit to a loss and

damages fund if it forms the next government would be significant. "It would be really powerful...because it would show a commitment to the just transition," Singer-Hobbs says.

Sobel agrees, saying that Labour should use the discussions to work out where it should place itself on this issue. "This year, the details [of the fund] are going to be thrashed out," he adds, "so where should Labour place itself? Where is the best place to support the negotiations? And what should our position be, as differentiated from the current government?"

"Rishi Sunak was shamed into going to Cop27"

Labour is keen to use this year's conference to distinguish itself from the current Conservative government. A party spokesperson pointed out that last year, "Sunak was shamed into going to Cop27 by the torrent of disbelief that he would fail to turn up.

"In the year since, he's doubled down on his failures – underlining both at home and abroad that this prime minister is not in the business of showing climate leadership on the world stage."

They added that while Cop28 is "of course about tackling the worsening climate crisis", it is also "about energy bills, energy security, and jobs here at home". A Labour spokesperson told *Spotlight*: "The only way to cut bills and make Britain energy independent is to go all out for clean power like solar and wind, which are now many times cheaper than gas."

With Cop28 kicking off soon it remains to be seen whether Miliband and his shadow team will use this opportunity to their advantage. ●

Only 66 per cent of our “fair share”

By Polly Bindman

In 2009, richer nations pledged \$100bn in climate funding each year for developing countries until 2020, later extended to 2025. The target has been missed every year to date.

Over a decade later, during the run-up to Cop28, the pressure is mounting on these countries to increase their contributions. The president of Cop28, Dr Sultan Al Jaber, recently emphasised that wealthier countries must take greater efforts to ensure climate finance for developing countries is “available and accessible”.

So where does the UK rank in terms of global climate finance contributions? Research from London-based think tank ODI has found that Britain is among a handful of countries that are not delivering their “fair share” of the \$100bn goal. Alongside Australia, Spain and Canada, the UK stands out for its “relatively poor performance”. ODI uses three equally weighted criteria to determine what constitutes a fair share: a country’s economic size; its cumulative (historic) emissions; and its population.

Based on the latest available OECD data from 2021, ODI found that only eight countries did contribute their fair share that year: Norway, France, Sweden, Denmark, Germany, Switzerland, Luxembourg, and the Netherlands.

In 2021, the UK provided a total of \$3.87bn (£3.17bn) via bilateral climate finance, multilateral development banks and other funds, amounting to just two-thirds (66 per cent) of its “fair share”, according to ODI.

This is “massively short of what the UK should contribute”, Dr Laetitia Pettinotti, research fellow at ODI, told *Spotlight*, noting that Britain “should be more ambitious” given the size of its economy.

ODI calculates that the UK should be contributing more than £4.8bn (\$5.9bn) annually. Due to this shortfall, Britain is third on ODI’s list of the six countries most responsible for the climate finance gap in 2021. ●





SEAN GALLUP/GETTY IMAGES

Why safe nuclear transport is key to net zero

By prioritising security and safety, we can build a sustainable future

In association with



**world nuclear
transport institute**

The ongoing climate crisis is one of the most pressing issues we face today. With the negative impact of carbon emissions from fossil fuels becoming increasingly evident, there is an urgent need to shift towards renewable and sustainable energies. However, while sources such as wind, solar and hydropower are excellent alternatives, they cannot combat the climate crisis alone.

In order to reach the ambitious net zero targets the UK has set, we believe that we must embrace nuclear power. The world's energy needs are growing at an unprecedented rate and we cannot solely rely on renewables and battery storage to provide us with sufficient energy. Sustainable and renewable energy sources must be integrated with other options such as nuclear to achieve the levels of energy output that we require.

Apart from powering homes, offices and hospitals, we also need vast amounts of energy to drive our industries such as steel, cement, paper and transport. It is critical to have an energy source that can provide us with the required power to keep up with these increasing demands without negatively impacting the environment.

To fully harness nuclear potential, it is essential that we prioritise safety and security in the use and transportation of nuclear and radioactive materials. This requires robust policies and regulations, overseen by organisations such as the International Atomic Energy Agency (IAEA), to ensure the highest standards are upheld. By prioritising safety and security, we can build public trust in nuclear power and pave the way for a sustainable future.

Additionally, robust safety measures play a crucial role in preventing accidents and incidents that could have far-reaching consequences. By promoting safe and secure transport of nuclear materials, we can move towards a greener future, reducing our carbon footprint while meeting growing energy demand.

Nuclear energy can provide a secure, reliable, low-carbon alternative to fossil fuels, as part of the mix with renewable energy sources. The development of large-scale reactors, advancements in small modular reactors (SMRs) and other new nuclear technologies requiring different fuels and transport

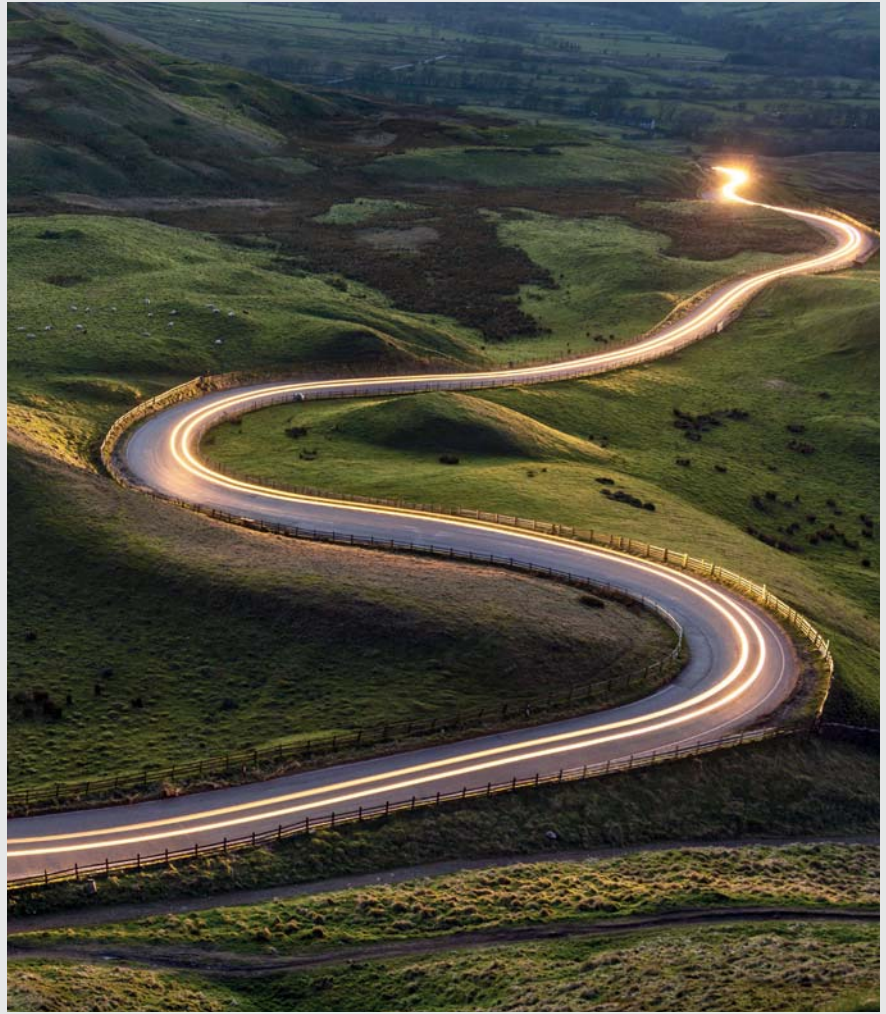
packages creates an essential role for the World Nuclear Transport Institute (WNTI) to influence the evolution of regulation. We can help to ensure the highest standards are met when it comes to the transportation of nuclear and radioactive materials.

For over 25 years, WNTI has collaborated with technical experts from its global membership, policymakers, regulatory bodies and industry stakeholders to drive the development of standards and best practices for the industry. Their expertise and dedication are crucial in ensuring that nuclear materials are transported safely and securely, allowing us to harness the benefits of nuclear energy while minimising the risks.

WNTI drives high standards in the nuclear transport industry, with working groups covering numerous areas, including front-end transport, emergency preparedness and nuclear propulsion.

WNTI's recently established New Nuclear Working Group – chaired by Ben Whittard, Managing Director, Solutions, of Nuclear Transport Solutions (NTS) – has been created to support WNTI members and set global standards to enable the successful roll-out of small modular and advanced nuclear technologies, contributing to the efforts to move away from fossil fuels and improving energy security. The group will do this by engaging with industry partners, exploring the important role transport will play, and seek to proactively identify and solve issues and challenges. The working group will also act as a vehicle to offer a single voice to important stakeholders such as the IAEA and regulators worldwide.

Policymakers and regulators have a critical role to play in achieving our green energy goals. As we strive towards net zero emissions, it is essential that they prioritise the development of policies and regulations that support the safe and secure use of nuclear energy and new nuclear technologies. By establishing robust guidelines and enforcing strict safety measures, policymakers can build public trust in nuclear power. Regulators, on the other hand, must ensure that these policies are adhered to and that the highest



Nuclear has a role to play in the UK's future secure energy mix

standards are maintained throughout the industry. Through their collective efforts, policymakers and regulators can create an environment that enables the safe and efficient transportation of nuclear materials, helping us to achieve our net zero goals while safeguarding the well-being of people and the environment.

The IAEA has said that “at a time when the use of variable renewables is growing, nuclear power makes a key contribution to energy supply security and grid stability”. Through its dedication and expertise, WNTI ensures that these materials are safely and securely transported, allowing us to harness the benefits of nuclear energy while protecting our planet. Policymakers and regulators must continue to prioritise safety and enforce strict guidelines to build public

trust and ensure a safe and efficient nuclear industry.

The World Nuclear Transport Institute is a dedicated membership and non-governmental organisation at the forefront of the global nuclear transport industry. We are here to support, advocate, and drive progress in this critical field. We pride ourselves on fostering diversity and inclusivity and recognising that industry collaboration is the foundation of progress. Our network proudly represents 40+ influential companies, offering a dedicated platform and the essential resources to drive meaningful change. ●

To find out more about WNTI and embark on a journey to influence the future of nuclear transport, visit: www.wnti.co.uk

“There are no magical solutions”

Climate scientist Pierre Friedlingstein says we must stop burning fossil fuels – nothing else matters

By Nick Ferris

The EU is heading to Cop28 – the latest UN Climate Conference, taking place in Dubai at the end of November – with one key policy ambition: “a global phase-out of unabated fossil fuels and a peak in their consumption in this decade,” according to a memo released after a meeting of environment ministers in October.

If negotiators achieve this ambition, it would be a landmark moment. Every year, the 198 countries that gather at Cop aim to agree on a cover text that acts as a major policy signal for countries to follow in the year ahead, but fossil fuels rarely get a mention.

The most the parties have ever agreed to on fossil fuels is to “phase down unabated coal power” – ie nothing on oil and gas, and not even necessarily a total phase-out of coal, the dirtiest fossil fuel of all. That line was included in the cover texts of Cop26 in Glasgow and Cop27 in Sharm-el-Sheikh.

This is simply not good enough, says Professor Pierre Friedlingstein, one of the world’s leading climate scientists, and the current chair in mathematical modelling of the climate system at the University of Exeter.

“Every year we see another Cop, but the gap between where we are and where we need to be on climate action grows ever larger,” Friedlingstein tells *Spotlight*. “Year after year, the elephant in the room is fossil fuels, and yet year after year we fail to produce a plan to phase them out.”

The 57-year-old Belgian is the director of the Global Carbon Budget, which is published just ahead of the Cop event each year, and is recognised across the world as the most comprehensive annual assessment of carbon dioxide emissions.

In 1990, when Friedlingstein began his PhD on the terrestrial carbon cycle at the University of Brussels, the climate conversation was just getting started. The Rio de Janeiro Earth Summit that established the United Nations Framework Convention on Climate Change (UNFCCC) took place in 1992. The first assessment report from the Intergovernmental Panel on Climate Change (IPCC) – a UN-backed authority established to inform governments on the state of knowledge on climate change – was published in 1990.

There have now been six IPCC assessment reports. Friedlingstein was a



Pierre Friedlingstein is the director of the annual Global Carbon Budget report

lead author of the most recent, which was published this year.

“When I started out, all the work on carbon cycles was about what might happen in the future if we don’t act,” he says. “But now it is clear that we haven’t acted fast enough, and we are already living in a world with unmanageable extreme weather, and unprecedented global temperatures.”

Friedlingstein has one key message for the thousands of delegates who will attend Cop28: focus on fossil fuels. “So long as we keep burning fossil fuels, nothing else really matters,” he says.

“The media is obsessed with all kinds of magical climate solutions. It could be machinery to reverse warming, it could be microbes in the soil, it could be anything that sounds exciting or has a nice photo,” Friedlingstein adds. “But none of this matters if we don’t stop burning fossil fuels.”

Last year’s Global Carbon Budget

shows that on average over the past decade, burning fossil fuels has led to 35 billion metric tons per year (GtCO₂/yr) of CO₂. This is compared to 5 GtCO₂/yr emitted in the land use sector, which includes deforestation and carbon emissions from farming (significant volumes of methane emissions are also produced, but the Global Carbon Budget does not count this).

In 2022, the team’s carbon models project that 37.5 GtCO₂ was released from fossil fuel burning, which is ten-times greater than the 3.9 GtCO₂ expected to be emitted by land use.

“Deforestation is essentially irrelevant, because the fossil fuel numbers are so big,” says Friedlingstein. “From a climate perspective, you could argue that the carbon contribution from land use does not really matter.”

He adds, though, that there are lots of other reasons why forests should be protected. “Forests remain very important to protect biodiversity, for

the indigenous populations that rely on forest ecosystems for their livelihoods, as well as to prevent soil erosion and sustain water supplies.”

If fossil fuels are key, the bad news is that the latest data shows that humanity’s thirst for them remains unquenched. According to the International Energy Agency (IEA), more than \$1trn will be invested in fossil fuels globally this year; that figure has grown every year since 2020.

Governments are also continuing to pour billions into fossil fuel subsidies. In 2022, G20 governments provided a record \$1.4trn, despite pledging in 2009 “to phase out and rationalise over the medium term inefficient fossil fuel subsidies while providing targeted support for the poorest”.

There is significant scepticism over whether Cop28 can be a watershed moment for fossil fuels, given that the president of the talks, Sultan Al Jaber, is also CEO of the UAE’s national oil company. “Whether we like it or not, the world will continue to need [fossil fuels],” he said in a recent interview. “My focus is to phase out emissions from everything. Regardless of where it comes from.”

In spite of all of this, Friedlingstein retains some optimism. “There are now a large number of countries around the world reducing emissions, even if it is not yet quick enough,” he says. “The speed at which renewables and electric vehicles are being adopted is also good news.”

Solar electricity and electric vehicles are two of the only three sectors (along with lighting) out of 50 that the IEA said in July are on track to meet their requirement for net zero to be achieved by 2050 globally.

Hope also lies in the physics of how carbon in the atmosphere operates, says Friedlingstein.

“Luckily, there is not much inertia in the system. This means that if we stopped producing emissions today, then warming would essentially stop today: there is not a large amount of additional warming expected from current carbon levels,” he says. “This means that we can still limit a lot of damage.”

He adds: “I lost hope that there will be no climate change. But I have not lost hope that we cannot make a big difference if we act now.” ●

South Africa's long road to energy independence

Amid daily blackouts, the country's firms are transitioning to net zero themselves

By Samir Jeraj

During a tour of BMW's IT hub in a shiny business district of Pretoria the power cut out. As we waited for back-up generators to kick in, the building went dark. Outages can last for hours. The company's critical IT systems are connected to an independent power source as protection, but outside, as traffic lights ceased to function, the noise level from car horns spiked.

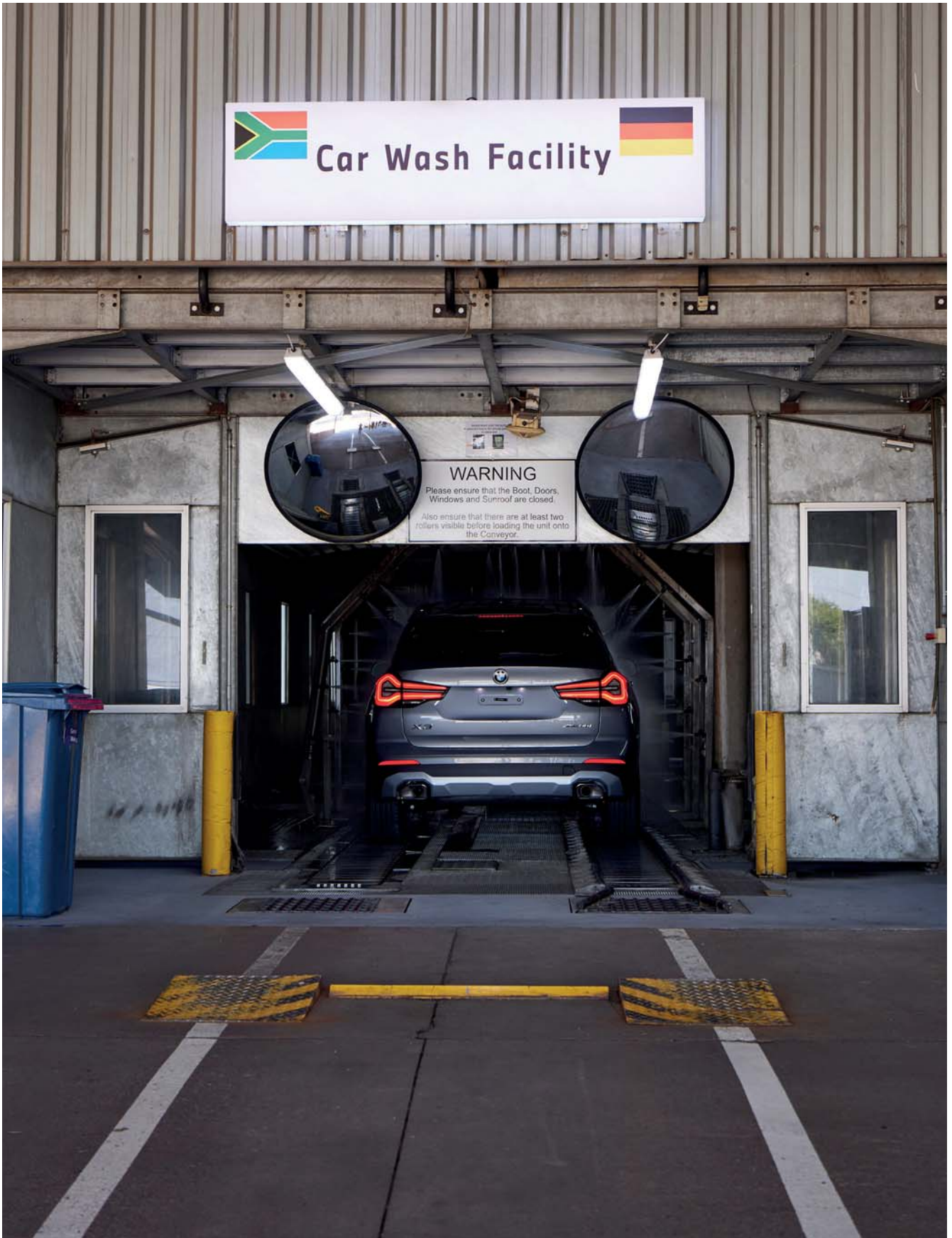
South Africa's problem of "load-shedding" – where the amount of power to the grid cannot meet demand – has plagued the country since 2007, when energy reserves ran out (the government warned as early as 1998 that the sector was in trouble). Eskom, the state-owned energy company, has been heavily criticised for mismanagement and been accused of corruption, much like the government. The decades of poor maintenance and investment in South Africa's power stations and infrastructure are biting. Unemployment in Africa's most industrialised economy stands at 32.6 per cent, and youth unemployment at 61 per cent. Inequality is high.

The energy transition could be a solution to these problems. In a country with plenty of sun, solar energy has the potential to transform South Africa's energy infrastructure and remove a major obstacle to economic development. While the government is working to fix the immediate problem of crumbling power stations – which are still largely powered by coal – companies and communities are taking their own steps towards energy independence.

On a given day, even in business districts and wealthier neighbourhoods, the power goes out multiple times, disrupting everything from schools to manufacturing. BMW's Rosslyn plant may be relatively unaffected by load-shedding – it is located in an area where the power network is strong – but several of its suppliers are. This can have an impact on production, and needs to be factored into business decisions.

It has not, however, affected the company's decision to invest \$224m into the plant to produce plug-in hybrid and electric vehicles. The factory itself draws 30 per cent of its power from a biogas plant, with the aim of transitioning to renewables by the middle of this decade, said Peter van Binsbergen, CEO of BMW South Africa.

The country has estimated it needs \$84bn in climate finance to transition ▶



BMW's Rosslyn Plant in Pretoria hopes to lead the way in South Africa's energy revolution

◀ its economy. Most would go to the energy sector, along with investments in new energy vehicles and green hydrogen generated from renewables. Whether South Africa and other middle- and low-income countries will get the funding they need – wealthy nations have yet to meet a yearly target of £100bn pledged in 2009 – is a debate for Cop28, which starts in Dubai at the end of November. Without it, South Africa may suffer energy crises for years to come.

The plan to transition Rosslyn and the vehicles it manufactures is ambitious and builds on other environmental improvements. Water consumption at the factory has been reduced by 38 per cent in a country that is water-scarce. One hundred per cent of waste from the factory is recycled either within the factory or via partners. The company works with Envirolite, a South African firm, to repurpose the polystyrene used at the factory as lightweight concrete bricks for affordable housing.

Water consumption at Rosslyn is largely from the paint shop, where the car chassis is covered with chemicals to protect against corrosion and then painted. This is now automated, with the cars conveyed through a warehouse and dipped slowly into vats of liquid. The employees who worked on this section of the line have been retrained to work in other parts of the factory, without job losses. This emphasis on retaining and retraining workers is important for the transition to electric vehicles too, explained Ilka Horstmeier, the people and real estate, labour relations director at BMW.

“Many people are always asking me, ‘How can a person who builds an engine build an HPB [hybrid plug-in battery]?’” she said. “They can because they know production. They have so much experience in how to build cars, how to build or how to improve production systems, how to maintain them; we can use that knowledge.”

BMW’s current plan is to export the new electric and hybrid plug-in vehicles, mainly to Europe. For the domestic market, existing charging infrastructure is limited and dependent on the parlous energy network. Battery EVs currently make up less than 1 per cent of domestic car sales. Van Binsbergen is looking to hydrogen fuel cell technologies, using the potentially abundant solar power from the Eastern Cape province to



Workers on the factory floor of BMW’s Rosslyn plant

produce it. These “could be exactly the answer for such conditions”, he said.

Industry is not the only sector to initiate the energy transition independently. At Ntsha-Peu primary, a school for 700 children in the Soshanguve township 30 kilometres north of Pretoria, the classrooms are largely powered by solar panels on the roof. These are connected to batteries that store excess energy to be used when needed, meaning that the school, which has two classrooms of computers, can continue to function through blackouts.

There are less hopeful examples of energy independence, too. South Africa’s high rates of violent crime – 6,228 murders were committed from April to June this year – make it one of the most dangerous countries in the world. Gated communities with armed guards and electrified fences are ubiquitous, with security systems protected against

blackouts by solar panels.

In July 2022, President Cyril Ramaphosa set out a plan to tackle the energy crisis, expanding the amount of available energy from solar and imports, and supporting businesses and households to do the same. This has helped mitigate the load-shedding problem. BMW’s investment in producing hybrids and EVs is a vote of confidence in the future.

Further changes need to happen to support the move to EVs, however. That includes finding ways to protect suppliers along the supply chain from load-shedding, working with industry to expand the charging network, and establishing a common battery factory in South Africa that could supply the whole sector.

It is clear, however, that without fundamental reforms the challenges of a struggling energy system will persist. Van Binsbergen said he had faith in the steps taken by the government to tackle load-shedding, but there is more to be done: “These two things move in parallel, so on the one hand is the energy transition to renewables, as well as getting our existing infrastructure back-up to where it should be.” ●

South Africa needs \$84bn to transition its economy

Samir Jeraj’s reporting trip was funded by the BMW Group. New Statesman Spotlight retained editorial independence



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Mike Thornton: “Businesses respond to certainty almost as well as money”



The chief executive of the Energy Saving Trust on retrofitting homes, the cost-of-living crisis and government backtracking over electric vehicles

How do you start your working day?

The urgent need to cut carbon and a strong coffee combine to get me started each working day. I also often think about my daughter, and any children she may have, and how I want to be able to look them in the eye and feel I've done everything I can to address the climate emergency for the sake of their future.

What has been your career high?

Becoming chief executive of the Energy Saving Trust and having the opportunity to lead its 500-strong team of talented people.

What has been the most challenging moment of your career?

I had planned a career as an academic

in genetics, but had to have a total rethink when university funding cuts meant that this career path was severely curtailed. I used transferable skills and started working in computing, which felt very cutting edge and exciting at the time, in the 1980s.

I didn't know it then but years later these skills would help me enter the environmental sector when I took up a role at Friends of the Earth Scotland.

If you could give your younger self career advice, what would it be?

Learn from observing the people you respect – think about what they did and why and how they did it.

Make the best decision you can and move on to the next one – don't look back. Don't sweat the small stuff.

Which political figure inspires you?

Christiana Figueres for her role in getting the 2015 Paris Agreement over the line, setting the limits for carbon emissions we have fought for ever since.

What policy or fund is the UK getting right?

The transition to electric cars has been

making good progress, largely because the government had in place a clear, fixed target of 2030 for the phase-out of new petrol and diesel cars. This was providing certainty for the supply chain, the roll-out of infrastructure, and for consumers.

It's important to remember that certainty is almost as effective as money for driving action. It's therefore very disappointing that this phase-out date has recently been shifted back to 2035 and I hope that decision is quickly reversed.

And what policy should the UK government scrap?

The cost-of-living and energy crises have been driven by our dependency on fossil fuels: we need to get rid of fossil fuels to lower costs and increase energy security.

Investing in fossil fuel projects rather than renewables means continuing to be tied to volatile international gas markets for years to come, and we will all suffer from such short-sightedness.

What upcoming UK policy or law are you most looking forward to?

I would like to see the promised rebalancing of levy costs between electricity and gas delivered as soon as possible, or better still, these removed from bills completely.

At the moment these unbalanced levies distort the running costs of electrical, zero-carbon heating, making this higher than it should be, sending all the wrong signals to householders.

If you could pass one law this year, what would it be?

To achieve net-zero carbon emissions by 2050 we need investment, long-term policies, consistent messages from government and, crucially, regulatory certainty. This sort of combined approach had been successfully driving action in the electric vehicle sector and needs to be replicated in other areas.

I'd like to see the government regulating for, and sticking to, a clear timeline and pathway for ensuring all homes are energy efficient and enabling the phase-out of new gas boilers.

This sort of bold action is what's needed from the UK government, not the backtracking that we have recently seen. ●

Competition

Why we're launching a £5k prize for progress

Britain is stuck. How do we get the country moving again?

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THE NEW STATESMAN Spotlight

Britain is stuck. Sewage flows almost freely into our rivers. Our most productive regions and those with the greatest potential are held back by restrictive planning rules and bureaucratic government. Frontier, public-interest technologies are blocked from realising their impact by under-resourced regulators. From infrastructure projects and passport offices, to hospital waiting lists and clinical trials, little seems safe from an increasingly sclerotic state.

Every month, as delays and backlogs stack up, the temptation to give in to a declinist narrative gets stronger. We are ensnared in a web of our own making, with seemingly little real interest in solving these problems.

But this is a dangerous place for a country to be, psychologically. It is all too easy for concern about decline to morph into self-fulfilling prophecy, to reach for knee-jerk responses to profound problems. In the process, we fail to acknowledge progress when it does happen: when passport timelines return to days not weeks, when new transport lines open, or when renewable energy allows us to shut down every last coal power station. And while demand for lab space is high, this is more a sign of potential than stagnation.

Whatever malaise Britain finds itself in, we must not let a declinist narrative snuff out any space for optimism, ambition and agency. As marginal losses accumulate and the pressure for radicalism grows, this can lead to deep political entrenchment which dissuades action. So we need a “whatever it takes” approach to escape the downward spiral, and there are flickers of hope to inspire us.

A new movement around science, technology and economic progress is evolving – particularly in the US – and offers a way forward. It champions abundance, not scarcity; state capacity, not decline; and supply-side action alongside demand-side subsidy. Above all, it is proudly solutionist. It recognises that golden ages don't happen by accident: they are made by political choices.

In the UK, this movement is taking form in the energy of young, emerging, frontier talents who share a frustration at the squandering of Britain's enormous

opportunity. When Keir Starmer promises planning reform and to back the builders over the blockers, or when Michael Gove outlines his plans for a beautiful, ambitious expansion to Cambridge, they are tapping into a nascent, energetic coalition that crosses traditional party lines.

But there are still many barriers to these efforts going mainstream. When the Advanced Research and Invention Agency (ARIA) and the Frontier AI Taskforce can entice rising scientists and technologists to work in the public interest, they remind us that the UK can remain at the frontier and secure its stake in the future. But these new institutions can thrive only because they are cleaved from the wider system they interact with.

The next government cannot afford to be complacent. A new hand on the rudder will need to be more than steady; it will need to change our course. Now, ahead of a general election, we need to fill the pipeline of ideas and talent with those who can wield technology and policy in pursuit of progress. This is key for the economy and for society: a Britain out of its rut can be one of greater equality, and also of opportunity.

To that end, we are excited to announce the Progress Prize, organised by TxP in partnership with Civic Future and *New Statesman Spotlight*. The prize exists to identify antidotes to Britain's malaise and provide a platform for emerging and frontier individuals who can go on to make these solutions real.

We want to hear from emerging scientists and students, technologists and technocrats. Anyone with no more than ten years of professional or postgraduate experience is invited to enter before the deadline on 7 January 2024. A prize of £5,000 will be awarded to the best response to the most urgent question there is: “Britain is stuck. How can we get the country moving again?” ●

To find out more, visit: txp.fyi

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