

How will COVID-19 impact our ability to deliver Net Zero

19 May 2020

The C-19 virus outbreak is a pointed reminder of the fragility of our current global economic system. The scale of C-19 pandemic geo-economic impact is still to be fully reconciled but it's safe to say it will be likely be unparalleled in recent history. As we move through these deeply challenging times, it has become clear that C-19 may provide an unexpected and unprecedented opportunity to address climate change.

The big question is, will we take it?

It is clear that the decisions that governments make now around the world as to how they respond and rebuild in the wake of the C-19 pandemic will have material implications on how effective, we as a global community, will be in achieving Net Zero by 2050.

Governments are in the process of developing their responses. Current thinking is that we will be looking at one of two broadly opposing scenarios:

1. **Green New Deal styled approaches** - whereby governments embrace this unprecedented opportunity and align C-19 recovery packages to benefit the economy and climate alike building resilience into economic structures to withstand future systemic shocks.
2. **Brown Backlash styled approaches** - driven by short term policy thinking responding to a desire for and fallout from a number of recently emerging trends including de-globalisation, the rise in nationalism and increasing fragmentation of the global multilateral institutions.

It is with these end member scenarios in mind that we have convened a set of panel sessions to explore where we think we may be heading, seeking opinion from several industry thought leaders.

This paper outlines the possible risks, uncertainties, constraints and opportunities that exist to realising a greener, better and net zero future.

ATKINS PANEL SESSION

On the basis that the impact of the C-19 pandemic measures are at an early stage, dynamic and have many more months, if not years, to play out¹, Atkins convened a panel session to discuss 'How Will C-19 impact our ability to deliver Net Zero'.*

In total 60 attendees from over 35 organisations attended the session.

A summary of the salient issues that emerged during the 90-minute discussion are grouped in themes and presented as distinct sections within this report.

 19 MAY

 60 ATTENDEES

 OVER 35 ORGANISATIONS

 90-MINUTES
DISCUSSION

¹ The Resolution Foundation, dated 14th May 2020. [The economic effects of coronavirus in the UK Utilising timely economic indicators](#).

*The background to the webinar series and the biographies of the panel members can be found in Annex 1 and 2, respectively.

The opportunity provided by recovery measures for C-19 to be aligned with the realisation of Net Zero are substantial but will require government interventions.

The C-19 impacts and UK government response has demonstrated that the UK is able to: (i) Rapidly implement policy and societally adapt in response to risks; (ii) effectively allocate research and development effort on a needs basis; and (iii) realise environmental co-benefits. This sets a precedent for UK climate leadership around COP26 in 2021. It also advocates the fundamental role for 'opportunity led preparation' to address systemic risk and develop resilience in a future where the effects of climate change will be more prevalent e.g. more frequent flooding, droughts, greater heat stress etc. The UK's natural and built environment is at present ill-prepared for this future. Therefore, the imperative to act for a climate compatible post-C-19 future - at a scale equivalent to a post-war recovery package is substantial.

The following is relevant:

01.

1.1. Green Recovery Package

Research indicates that the environmental compatibility of the immediate tranche of international governments stimulus measures are at best mixed². For example, the UK's \$533 billion USD fiscal spending package, as at 12th May, is considered marginally climate compatible.

1.2. Governments Role in Building Back Better

The role of government in providing the appropriate frameworks and signals to realise a 'Build Back Better' Agenda is substantial as emissions are likely to return to pre-C-19 levels without the appropriate interventions³. Therefore, as articulated by the Committee on Climate Change the following requirements are likely necessary for building a resilient recovery off back of the C-19 crisis⁴:

- » Tackle the wider 'resilience deficit' on climate change where business plays its part through full disclosure of climate risks e.g. support optimisation of water consumption and networks, strengthening nationally significant infrastructure networks and assets considerate of climate risks, increase biodiversity and environmental net gain programmes, address the issue of overheated homes, etc.
- » Embed fairness as a core principle. Societal fairness in British society has been precarious for some time⁵. C-19 has impacted those members of society least resilient - this must be addressed to allow them to not be locked into life-long impacts⁶. A component of this can be achieved through the application of social value concepts to optimise the management and development of the natural and built environment, and the funding of such initiatives.
- » Ensure the recovery does not 'lock-in' greenhouse gas emissions or increased climate risk e.g. support for carbon intensive sectors should be contingent on credible and measurable decarbonisation plans that result in positive and lasting change.
- » Strengthen incentives to reduce emissions when considering fiscal changes e.g. tax oil while its price is low so as not to burden consumers⁷.

² Vivid Economics, Updated bi-monthly. [Green Stimulus Index](#) An assessment of the orientation of C-19 stimulus in relation to climate change, biodiversity and other environmental impacts.

³ Le Quere, C et al., 2020 - [Temporary reduction in daily global CO2 emissions during the COVID-19 forced confinement](#). Nature Climate Change 19th May 2020.

⁴ Letter from Lord Deben, [Chairman of the Committee on Climate Change and Baroness Brown Chair of the CCC's Adaptation Committee, to the Prime Minister, the Rt Hon Boris Johnson MP](#) dated 6th May 2020.

⁵ [What is generational fairness?](#) David Runciman speech on intergenerational fairness and political representation dated 21st October 2019.

⁶ Resolution Foundation dated 6th May 2020. [Corona crisis could increase youth unemployment by 600,000 this year - and scar young people's prospects for far longer](#).

⁷ Brent Crude fell from \$75 to \$23 bl in Q1, 2020 a fall of 70% - though it has recovered to around \$34 bl in mid-May 2020.

The empowerment of society to engage emotionally and practically will be fundamental to the effective realisation of Net Zero. How recovery measures are applied are as important as what measures are applied.

There is a need to avoid the Jobs versus Climate framing. Lessons from UK society's response to the C-19 measures provide insights as to the complexity of harnessing societal buy-in for systemic behavioural change for Net Zero⁸. Though superficially unified, society's acceptance of the current changes in behaviours and lifestyle is fragile. Unless this is proactively addressed this fragile cohesion will fragment making the realisation of societal buy-in around Net Zero problematic in a post C-19 world. For example, though only 9% of society want a return to a pre-C-19 world and 75% want climate change to be a priority - when asked about the prioritisation of the economy over climate change - society is split equally.

02.

⁸ Susan Michie dated 18th May 2020 - [Managing the impacts of COVID-19: The role of behavioural and social sciences](#).

2.1. A Social Moment: The C-19 Generational Shift Event

The C-19 crisis is seen as a 'Generational Shift Event'. There are three components to the societal impact of C-19 and the subsequent shift: (i) it will compound the loss of faith that the next generation will have as good a future as this generation including the growing sentiment of 'helplessness' as a function of the next generation's inability to change the 'system'; (ii) the need for the development of a licence to think about the future and a social imagination to want something new rather than perpetuate a zombie orthodoxy⁹; and (iii) though there is coherence around the accepting the lockdown (87%) with 69% agreeing strongly - UK society is actually fragmented into the Accepting (48% of the UK), the Suffering (44%), and a much smaller group who are Resisting (9%)¹⁰. Therefore, the window of opportunity to harness the 'social moment' presented by C-19 to align policies and regulatory regimes to Net Zero is likely to be finite as there is already resentment as to the present government interventions - a social dialogue will mitigate this - see below.

2.2. Consistent Vision

The narratives justifying government responses around C-19 are likely to become more divergent the longer the crisis goes on and therefore increase societal fragmentation further, as is already evident in the differences in advice being given in England, Wales, Scotland and Northern Ireland. Therefore, the way that we exit C-19 will be as important as achieving what we want from a post-C-19 world.

2.3. Vibrant Social Dialogue

A vibrant social dialogue around an Anticipatory Regulation is likely to be integral to the reduction of helplessness, development of trust and hope so that society will feel that they have a say in the post-C-19 future¹¹. Empowerment mechanisms and processes which directly involve society such as citizen assemblies and participatory futures as well as embedding principles such as social value into managing and developing the natural and built environment are being developed and need to be more widely embraced¹².

⁹ Geoff Mulgan dated 12th May 2020 - [Social sciences and social imagination](#).

¹⁰ The Policy Institute dated 27th April 2020 - [The Accepting, the Suffering and the Resisting](#): different reactions to life under lockdown.

¹¹ McLaren and Workman dated 5th May. ATKINS Webinar Note: The role of Anticipatory Regulation (AR) in achieving Net Zero in a post-C-19 World pp18.

¹² Parliament is undertaking a [Citizens Assembly around Net Zero](#) and nascent work on Participatory Futures is being pioneered - see: Nesta 2019 - [Our Futures: By the people, for the people](#).

Lessons from the global financial crisis can be used to ensure that C-19 stimulus measures are climate compatible^{13, 14}.

For example, infrastructure resilience and renewable energy programmes generate more jobs in the short to mid terms (i.e. During their development and construction phases). This is important as jobs will likely be scarce during a recession making further investment into net zero and low carbon schemes unattractive if the skills and wider workforce to deliver them are absent. The suite of prospective measures and their likely benefits need to enter the public consciousness to lend credibility to the narrative of hope in a post C-19 world.

03.

¹³ IEA, 19th April 2020 - [What the 2008 financial crisis can teach us about designing stimulus packages today](#).

¹⁴ Will C-19 fiscal recovery packages accelerate or retard progress on climate change? Cameron Hepburn, Brian O'Callaghan, Nicholas Stern, Joseph Stiglitz and Dimitri Zenghelis: An assessment of 196 stimulatory fiscal recovery policies implemented in response to the GFC (2008/9).

3.1. Corporate Appetite to Build Back Better

Corporate appetite for 'Building Back Better' is demonstrated by the 150+ global organisations signed up to the Science Based Targets Initiative¹⁵ and organisations on the World Economic Forums Mission Possible Platform¹⁶ - reaffirming their commitments to achieving Net Zero and calling on governments to match their ambitions.

3.2. Maintaining the Net Zero Commitment

Working with industry pioneers to fulfil aspirations around Net Zero will ensure progressive action aligned with Net Zero goals. There will be a need to: (i) assess the impact of C-19 on the ability for corporations to hit Net Zero; (ii) ensures the 'Build Back Better' agenda allays fears around the frequency and magnitude of future systemic global disruption e.g. biodiversity loss, climate change etc; as well as (iii) avoid any backlash. There is a need to make Net Zero aspirationally appealing.

3.3. Green Bailout

Government corporate bailouts include climate compatible conditions such as: (i) clearly defined commitments receiving organisations are expected to meet, (ii) a requirement that public benefits provided are proportionate to the level of public investment and (iii) a consideration of medium and long term risks when deciding on the scale and duration of support¹⁷.

¹⁵ <https://sciencebasedtargets.org/>

¹⁶ World Economic Forum - [Mission Possible](#).

¹⁷ Vivid Economics - Updated regularly. Integrating climate change and biodiversity into the response to C-19: [Bailout measures](#).

For Net Zero to be realised by 2050 a range of issues need to be proactively addressed.

We see a number of material issues emerging that will potentially undermine any opportunities that a post covid world may present. These include (i) Regulatory and Governance Bottlenecks, (ii) Gaps in institutional, policy and regulatory frameworks and fiscal tools; as well as (iii) further empirical validation of the prescribed measures - All of which need to be addressed as a matter of urgency.

04.

4.1. Capital Market Regulation and Signals

Though returns on investment in renewable projects are double those received from fossil fuels there is still heavy investment in the fossil fuel sector¹⁸. The capital markets - across all sectors beyond energy - are not supporting the low carbon transition for a number of reasons: (i) the lack of volume of low carbon investments to absorb the capital which might be divested from fossil fuel intensive assets; (ii) the policy signal is insufficiently strong for incumbents to re-align investment around Net Zero; and (iii) there is a lack of confidence that investing in Net Zero assets will fulfil investors needs e.g. a reliable dividend for institutional investors. There is likely to be a need for radical and wholesale changes around financial regulation e.g. mandatory Scope 1,2 and 3 disclosures in financial statements; mandatory sub-categorization of capital expenditures in financial statements; climate-related stress testing of financial institutions; assessments of carbon impact of monetary policy - in particular, large scale asset purchases by central banks; National pension regulation reform; and Supranational banking/insurance industry reform e.g. Basel and Solvency.

4.2. UK National Investment Bank

Though there has been strong advocacy for the establishment of a UK National Investment Bank to generate UK investment around Net Zero and resilience substantial challenges remain, especially post C-19. The long-established role of government as being the main investor in decarbonisation initiatives will likely be compromised as a function of the UK's considerably weakened fiscal position following the C-19 fiscal stimulus measures - see Annex 1.

4.3. New Fiscal Tools

New fiscal tools need to be developed to address the government's post-C-19 expanded balance sheet by bringing in more revenues e.g. Carbon Taxation which is fully recycled to green investment¹⁹. It is important that any interventions stimulate 'whole of system change'.

4.4. The Long Game

For the Net Zero 2050 agenda to remain a viable and achievable goal economic stimulus measures and responses to C-19 must have the long game in mind. The current short run economic responses currently being deployed display mixed signals on their short and long term climate compatibility²⁰. Research to collect more data round the returns for net zero stimulus measures is an important requirement to ensure effective climate compatible stimulus measures can be delivered and continue to attract the investment required to deliver Net Zero by 2050.

¹⁸ IEA 2019 - World Energy Investment 2019 - [Investing in our energy future and Energy Investing: Exploring Risk and Return in the Capital Markets](#) A Joint Report by the International Energy Agency and the Centre for Climate Finance & Investment May 2020.

¹⁹ Our Plan | [Climate Leadership Council](#): (Updated September 2019) Economists agree that an escalating carbon fee offers the most cost-effective climate policy solution, sending a powerful price signal to steer businesses and consumers to a low carbon future.

²⁰ Economist dated 4th May 2020 - [Life after lockdowns: 90% Economy: It will be hard in ways that are difficult to imagine today](#) relaxation of C-19 Lock down will be a drawn out process over many months, uncertainty on whether another lock down will be implemented, impact of prolonged social distancing and the willingness for individuals and corporations to spend and invest will have macro-economic impacts.

Background Context to Achieving Net Zero in a Post C-19 Webinar Series.

"We can go back to the world as it was before or deal decisively with those issues that make us all unnecessarily vulnerable to crises. Our roadmap is the 2030 Agenda and the 17 Sustainable Development Goals. The recovery from the C-19 crisis must lead to a different economy."

- UN Secretary General, 31st March 2020.

Annex 1.

How resilient is our commitment to Net Zero in a post C-19 world?

Up to early March 2020, there was a real sense of urgency around the Net Zero agenda. Plans were being drawn, commitments were being made and budgets allocated as there was a realisation that more urgent action was needed by government, industry and the private sector to address the climate change emergency.

Then C-19 became a global pandemic disrupting in an unprecedented manner. Impacting every aspect of corporate and individual lives with over a half of the global population living in lock-down. After coming to terms with the surreal and chilling prospects that COVID represents minds have drifted to ask: **How resilient is our commitment to Net Zero in a post-C-19 world?**

The C-19 pandemic will impact the geopolitical and geo-economic order in ways not seen since the end of the Second World War. Industry and private sector are looking to understand the financial, economic and political factors that may affect their ability to meet Net Zero targets. Already views are emerging of possible trends which will impact the post C-19 era - including but not limited to:

Geo-politically -

One consequence of the pandemic may be the accelerated increase in the geopolitical influence of the east and specifically China, with an increased ability to influence the climate change agenda, particularly when considered in the context of increasingly protectionist policies being promoted by countries such as the USA.

It seems, at least at face value, that Asian countries - specifically China, South Korea and Singapore - have been more effective at limiting the impacts of C-19 within their borders compared to western democracies - having learnt the hard lessons from the SARs outbreak between 2002 and 2004. **How will this potential transfer of power influence Asia's approach to climate change and Net Zero and will it result in a shift in global leadership around Net Zero?**

Global Economics -

There is a looming spectre of a deep global recession and increased national debt²¹ as a function of the \$7 trillion economic stimulus measures implemented by global leaders. In the UK the Office of Budgetary Responsibility has warned that the pandemic may result in a 35% contraction of the UK economy by July. The Economist forecasts a global economic contraction of 3% in 2020²². Fiscal interventions totalling \$7 Tn - as at 26th March and growing - are being introduced to stabilise national economies.

While the broad narrative of governments across the world maintain that there will be a sharp economic recovery, this view is based on the assumption that COVID can be dealt with relatively swiftly and decisively in the next 6 months. Linked to geopolitics, it is widely believed that China is likely to reignite its economy before most OECD countries. A surge of Chinese exports might trigger a new wave of trade protectionism even while supply chain shortages and whole market sector workforces remain constrained by isolation measures elsewhere - thereby hindering the ability for the global economy to recover. In the context of net zero: **Will fiscal policy have to tighten to allow the capacity for such stimuli again in the future? If so, how will disruptive, mission led innovation be funded and incentivised?**

²¹ Chancellor Sunak warns of 'tough times' for UK economy: BBC, 14th April 2020: <https://www.bbc.co.uk/news/business-52279871>.

²² <https://www.eiu.com/n/C-19-to-send-almost-all-q20-countries-into-a-recession/>.

Global Industry and Business -

Corporate balance sheets and human capital will be severely contracted and long-established supply chains may collapse. The capacity for radical innovation, principally balance sheet funded, to be developed will be reduced. Corporations are shedding headcount e.g. in by 3 April 2020 US claims for unemployment benefits hit nearly 17 million - the highest since records began. Even in the UK, unemployment may climb to 10% (2 million unemployed) not counting those furloughed.

How resilient are UK supply chains, how might they change given the dramatic change in working practices and how could this affect Net Zero solutions, developments and innovations?

Shift in international supply chains -

An increasing shift from globalism to regionalism will increasingly fragment regulatory systems, interrupt the flow of capital between nations and adversely affect commerce. **How will international corporations manage these additional transaction costs to doing business?**

Risk -

The risk appetite of the global financial organisations will decrease as they seek to rebuild reserves, and insurance premiums are likely to rise. **How will this impact the market financing of disruptive innovation needed to germinate and scale nimble start-ups?**

Crisis can present opportunities for new or different approaches; the scale of change will however depend to some extent on the degree to which organisations, government and society can harness opportunities and manage the risks, as well as their overall desire to deliver real change.

Over the past few weeks corporations and individuals have demonstrated their ability to innovate and adapt to new ways of working, with digital technologies allowing us to connect and collaborate in unprecedented ways. All this shows that it is entirely possible to rapidly change how we work and live. For example, deprioritising the need for travel has even within this short timeframe delivered improvements to air quality in urban centres around the world and reduced the carbon footprint of both global and local travel. Clearly even within the current climate we are not powerless to influence progress to net zero.

Though there is much uncertainty as to how industry and private sector actors might address the Net Zero agenda in a post-C-19 world the opportunity to develop collaborations between like-minded partners to minimise the risks and maximise the opportunities is almost certainly going to be needed - even more than before C-19. It is in the spirit of collaboration that ATKINS have teamed up with the World Economic Forum to develop a cross-industry strategic dialogue. The strategic dialogue will seek to undertake a collaborative foresight exercise to explore the near-term future in the context of the C-19 Pandemic and its impact on industry and private sector actors capability to address Net Zero to 2050. The dialogue will take place via a series of cross industry webinars to discuss what the C-19 Pandemic may mean in the context of attaining Net Zero.

Let's not wait and see how COVID impacts our Net Zero aspirations and objectives, let's understand the problem, lean in and start steering the ship.

The roundtable

was hosted by ATKINS and made up of a panel of the following specialists who spoke in the following sequence:

Chair: **Stuart McLaren**, ATKINS.

Dame Julia King

Vice Chair of the Committee on Climate Change.

Anthony Hobley

Executive Director of the Mission Possible Platform a partnership between the World Economic Forum and the Energy Transitions Commission.

Charles Donovan

Director of the Centre for Climate Finance and Investment at Imperial College Business School and Principal Teaching Fellow in the Department of Finance.

Bobby Duffy

Professor of Public Policy and Director of the Policy Institute, Kings College London.

Freya Crunden

Atkins Subject Matter Expert for Carbon and Cultural Change.

Further information on the panel members can be found in **Annex 2**.

The panel was then opened up for a roundtable discussion amongst participants with a wrap up. It was also announced that the next iteration of the roundtable will be announced shortly.

Biographies of Panel Members.

Annex 2.

Stuart McLaren

is Technical Director of Carbonat Atkins, leading a wide range of low carbon, environmental and engineering service lines. He is also an accomplished client director, providing strategic cross-sector leadership on major infrastructure projects with a recent focus on low carbon and renewable energy schemes in the UK.

Stuart leads on the development of Atkins low carbon / Net Zero services lines working closely with academia and industry actors to advance the thinking around the Net Zero Agenda.

Julia King

The Baroness Brown of Cambridge DBE FREng FRS is an engineer, with a career spanning senior engineering and leadership roles in industry and academia. She currently serves as: Vice Chair of the Committee on Climate Change and Chair of the Adaptation Committee; non-executive director of the Offshore Renewable Energy Catapult; Chair of the Carbon Trust. She is currently supporting the UK offshore wind sector as Sector Champion for the development of the Sector Deal as part of the Government's Industrial Strategy. She is a Fellow of the Royal Academy of Engineering and of the Royal Society, and was awarded DBE for services to higher education and technology. She is a crossbench Peer and a member of the House of Lords European Union Select Committee.

Anthony Hobely

is the Executive Director of the Mission Possible Platform a partnership between the World Economic Forum and the Energy Transitions Commission. Anthony was Chief Executive Officer of the Carbon Tracker Initiative from February 2014 to March 2019, and now is co-chair of the Advisory Board. Previously he was a partner and Global Head of the Sustainability & Climate Finance Practice at global law firm Norton Rose Fulbright. Formerly he was General Counsel to the Climate Change Capital Carbon Fund and Director of Legal Policy for Climate Change Capital which he joined in September 2005.



Dr. Charles Donovan

is Principal Teaching Fellow in the Department of Finance at Imperial College London Business School,



Principal Teaching Fellow of the Climate Change Management & Finance MSc and Corporate Fellow at the Grantham Institute of Climate Change and Environment. He is the editor and co-author of Renewable Energy Finance: Powering the Future and has advised on alternative energy policy for both the private sector and US government.

Bobby Duffy

is Professor of Public Policy and Director of the Policy Institute, Kings College London. Prior to joining King's in 2018, Bobby was Managing Director of Public Affairs for Ipsos MORI, which is a team of around 250 researchers in London, Manchester, Edinburgh and Brussels, and Global Director of the Ipsos Social Research Institute. In his 25 year career he has worked across public policy areas including research and evaluation, and has been seconded to the Prime Minister's Strategy Unit and the Centre for Analysis of Social Exclusion (CASE) at the LSE. Bobby also sits on several advisory boards for think tanks and universities, as well as Chairing the CLOSER Advisory Board, the Campaign for Social Science, and as a trustee of British Future and the Centre for Transforming Access and Student Outcomes in Higher Education.



Freya Crunden

is Atkins' Subject Matter Expert for Carbon and Cultural Change focused on enabling cultural change to drive down infrastructure carbon emissions. She leads carbon management on major project delivery frameworks, in particular working closely with the Environment Agency working across supply chains to enhance collaboration, upskill and enthuse teams, and make carbon reductions real through practical actions. Freya is passionate about creating new low-carbon ways of working through behaviour change and effective processes.



FOR MORE INFORMATION CONTACT:

STUART MCLAREN

Stuart.McLaren@atkinsglobal.com

MARK WORKMAN

mark.workman07@imperial.ac.uk



ATKINS
Member of the SNC-Lavalin Group

**Imperial College
London**