

So you've declared a climate emergency – now what?

Chaired by Professor Patrick Devine-Wright

Event running order:

- Provocations from University of Exeter, Transition Exeter and Fridays 4 Future representatives
- Audience Q&A with panel
- Audience voting followed by final remarks

Join in the conversation on Twitter using [#ExeterClimate](https://twitter.com/ExeterClimate)

Professor Mark Goodwin

Deputy Vice-Chancellor, University of Exeter

Provocateurs

- Sophie Sleeman, Fridays 4 Future
- Pierre Friedlingstein, University of Exeter
- Gill Westcott, Transition Exeter
- Alice Moseley, University of Exeter
- Richard Hoggett, University of Exeter (via video link)

Sophie Sleeman

Fridays 4 Future

Pierre Friedlingstein

University of Exeter

XR Three Demands



1. Tell the Truth

Government must declare a climate emergency

2. Act Now

*Government must act now to halt biodiversity loss and reduce greenhouse gas emissions to **net zero by 2025***

3. Beyond Politics

Government must create and be led by the decisions of a Citizens' Assembly on climate and ecological justice.

IPCC AR5 (2013):

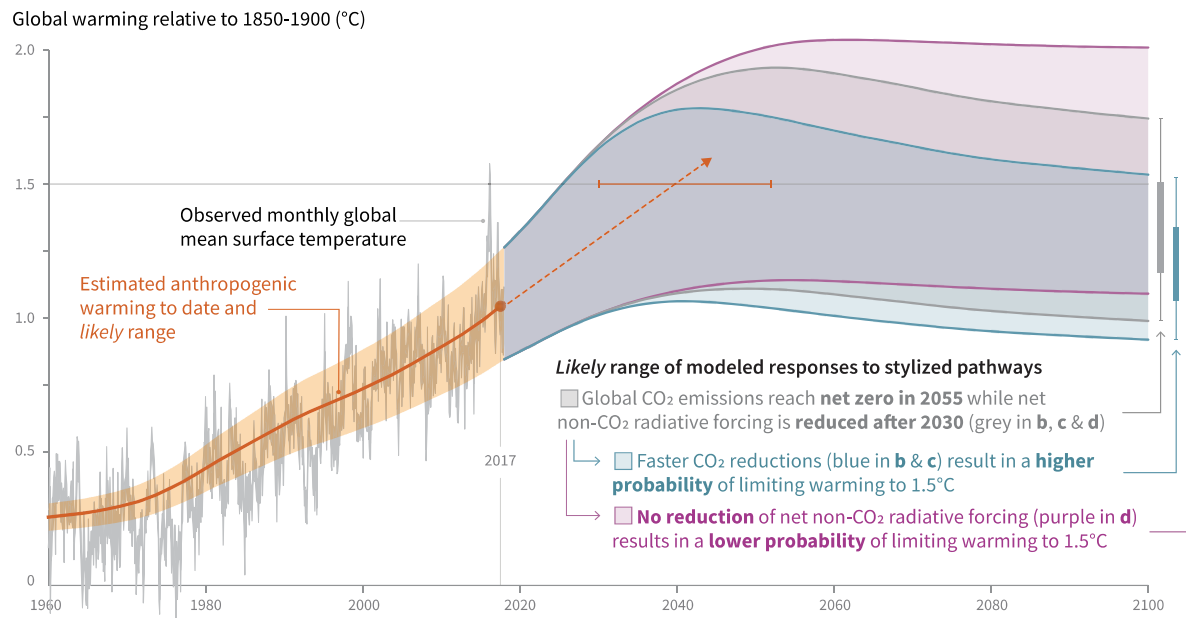
... for 2°C, global net CO₂ emissions need to decline by 40 to 70% by 2050 and near zero or below by 2100.

IPCC AR6 Special Report 1.5°C (2018):

... for 1.5°C, global net CO₂ emissions need to decline by about 45% by 2030, reaching net zero around 2050.

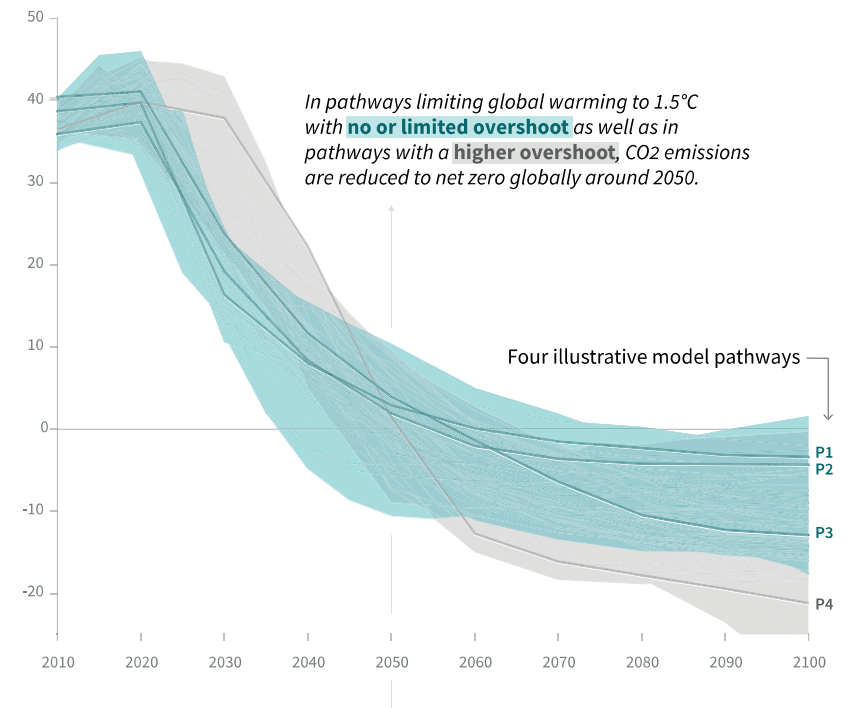
UK Committee on Climate Change, Net Zero report (May 2019):

The UK should set an ambitious target to reduce greenhouse gas emissions to 'net-zero' by 2050.

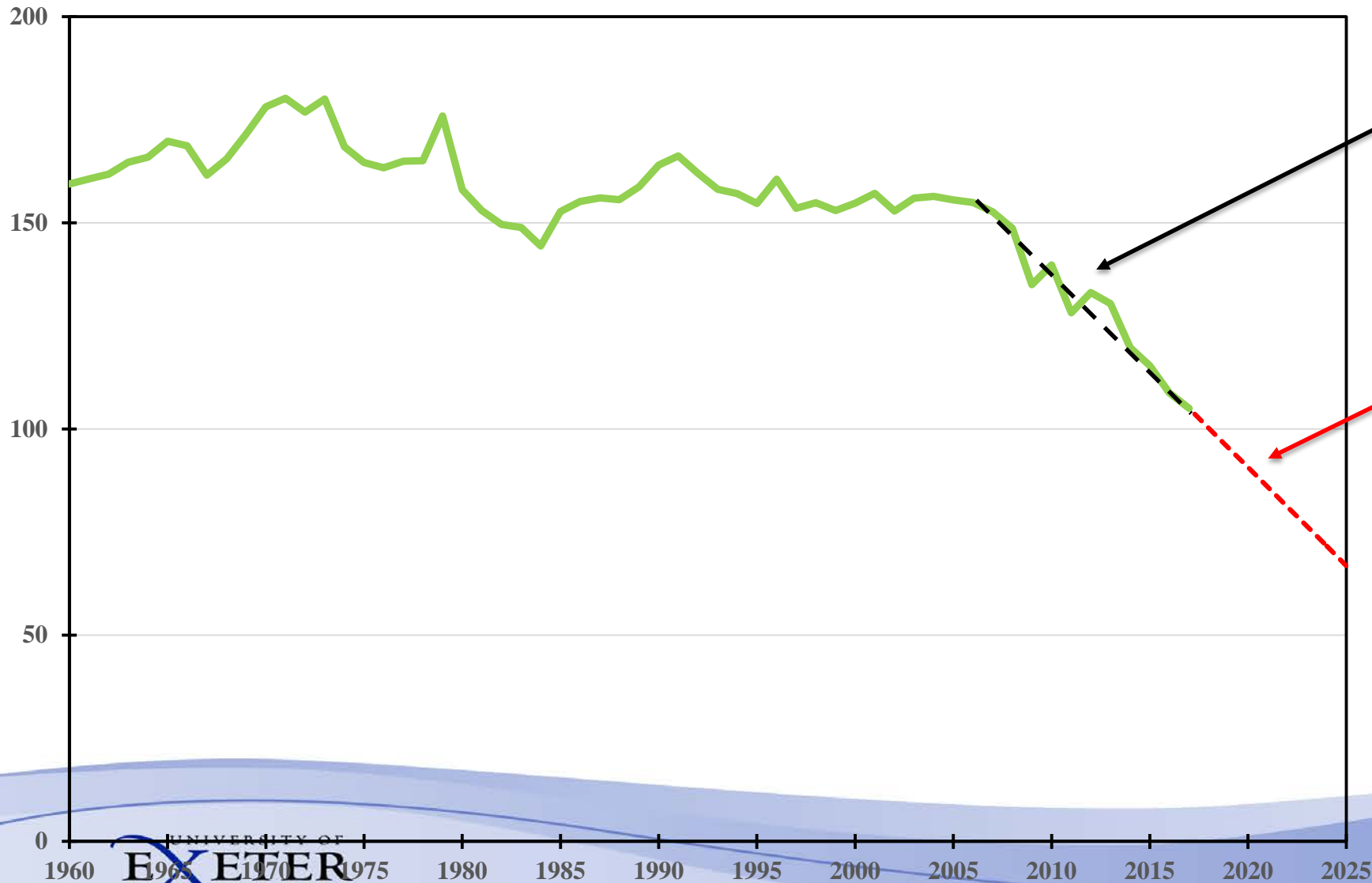


Global total net CO₂ emissions

Billion tonnes of CO₂/yr



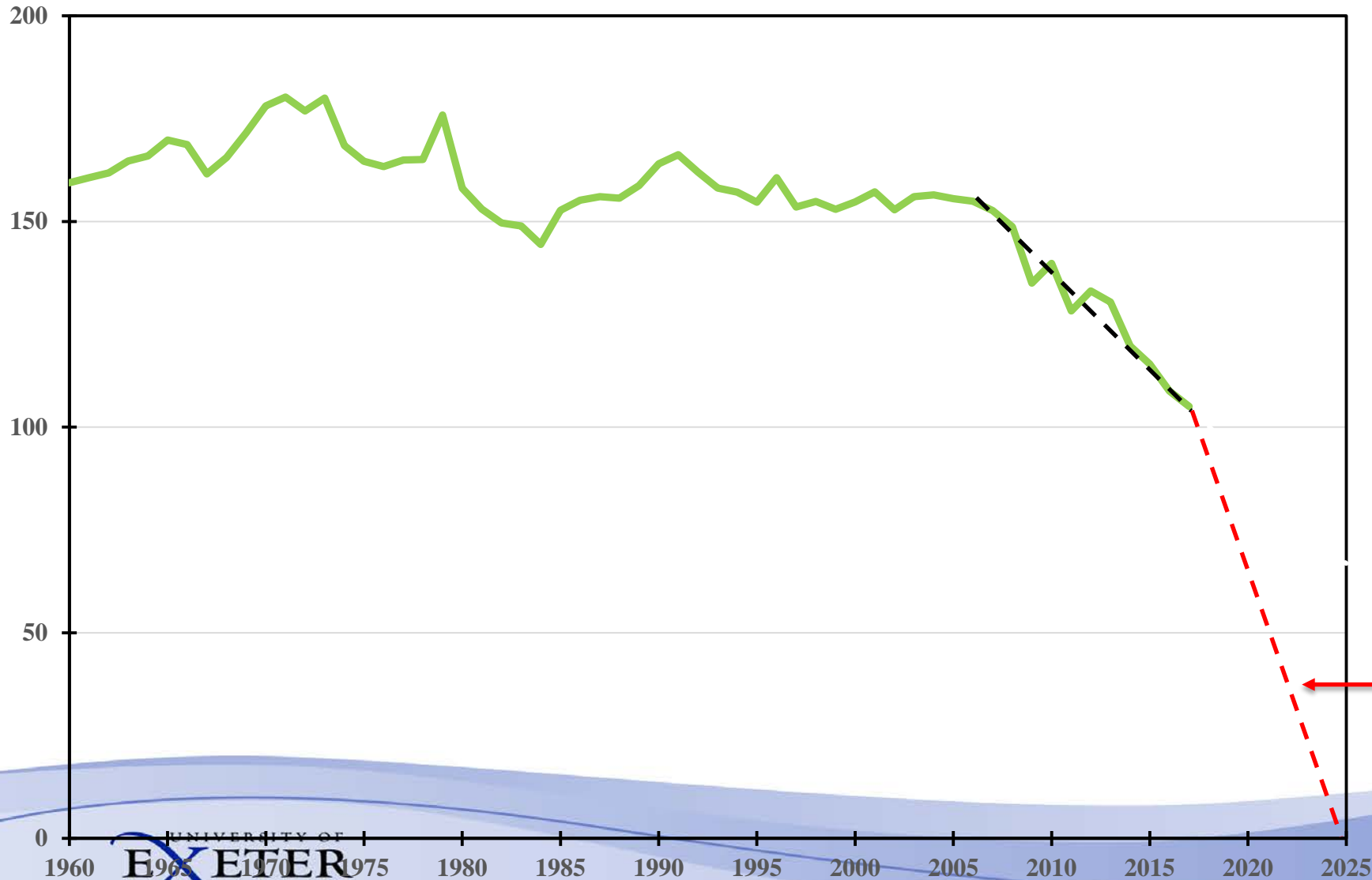
UK CO₂ emissions



Over the last 10 years, UK emissions reduced by about 5MtC (3%) per year

Continuing at the same rate (5MtC/yr), UK emissions will still be about 65 MtC/yr by 2025 !

UK CO₂ emissions



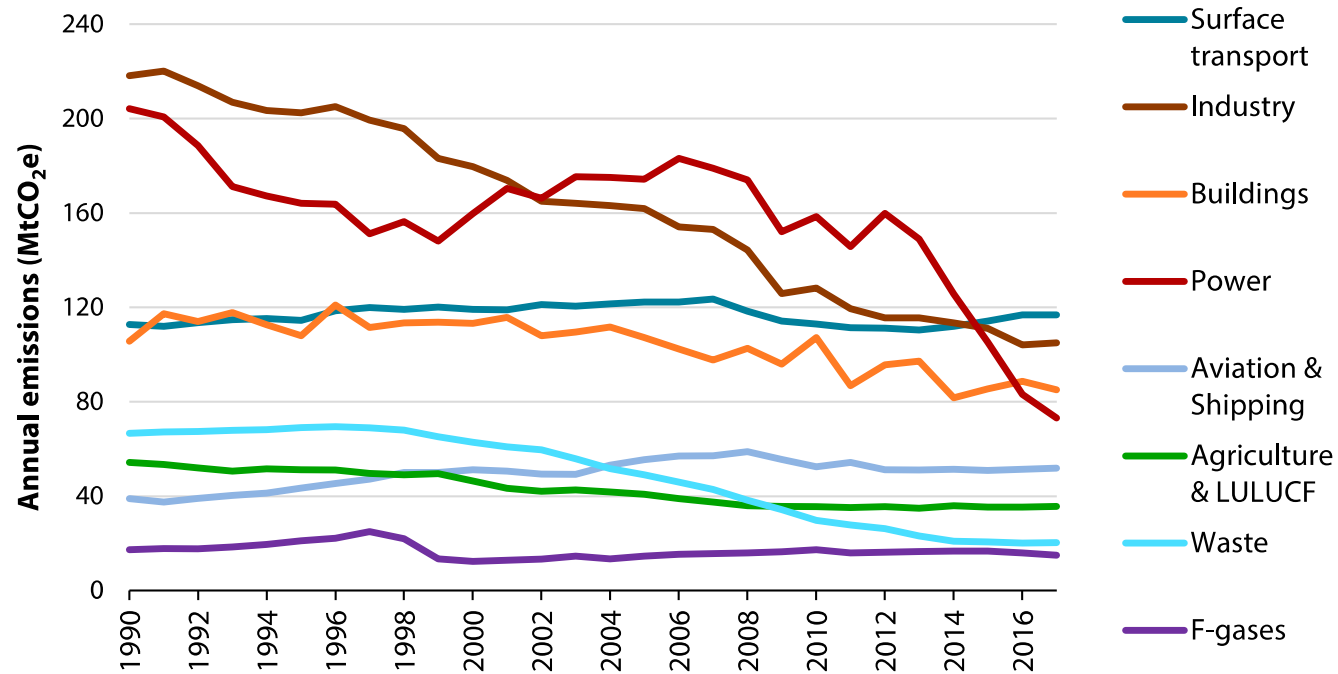
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Continuing at the same rate (5MtC/yr), UK emissions will still be about 65 MtC/yr by 2025 !

To reach zero by 2025, one needs to decrease by about 15 MtC per year.

That's going to be hard

UK emissions per sectors

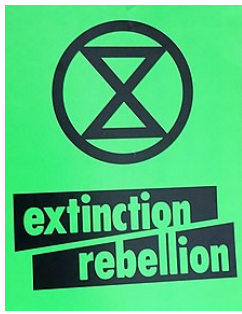


So far, most of the reduction occurred in
1) Industry sector
2) Power sector

Other sectors such as transport, buildings and aviation/shipping show very little reduction so far.

That makes it even harder

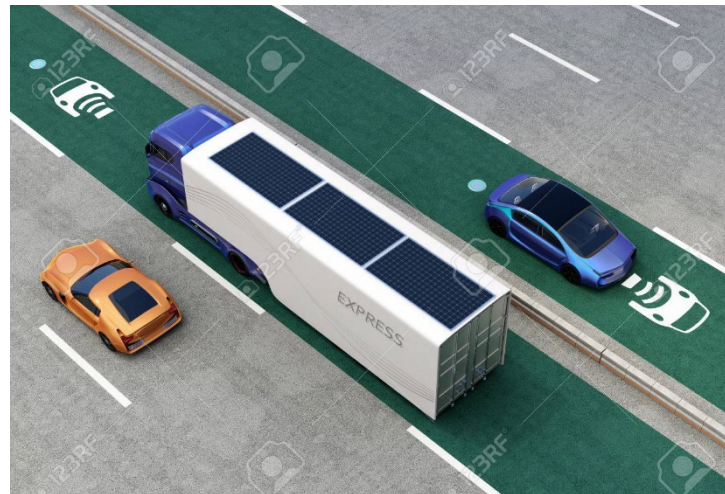
Source: BEIS (2019) *Final UK greenhouse gas emissions national statistics 1990-2017*; CCC analysis. LULUCF = land use, land use change and forestry.



How rapidly can we go from here



... to there



Gill Westcott

Transition Exeter

Committee on Climate Change

- Ban sale of petrol and diesel cars ideally by 2030, 2035 at the latest.
- Quadruple clean electricity production from wind, solar and perhaps nuclear, plus batteries to store it and connections to Europe to share the load.
- End connection of new homes to the gas grid in 2025, with boilers using clean hydrogen or replaced by electric powered heat pumps. Plus, all homes and appliances being highly efficient.
- Beef, lamb and dairy consumption falling by 20%, though this is far lower than other studies recommend and a bigger shift to plant-based diets would make meeting the zero target easier.
- Convert a fifth of all farmland – 15% of the UK – to tree planting and growing biofuel crops and restoration of peat bogs. Vital to take CO2 out of the air to balance “unavoidable” emissions from cattle and planes.
- 1.5bn new trees will be needed, meaning more than 150 football pitches a day of new forests from now to 2050.
- Flying would not be banned, but the number of flights will depend on how much airlines can cut emissions with electric planes or biofuels.

Carbon Tax



Dieter Helm – advocates carbon tax. Has advised Coalition government

- Discourages use of fossil fuels, encourages energy saving
- Encourages use of renewables and labour
- Could replace VAT. Could leave the burden of taxation unchanged.

But – imports?



- Would need a border tax on carbon content of imported goods (otherwise cheaper imports would put UK producers out of business)
- It would encourage producers in other countries to decarbonize their goods if they want to export to UK. BUT.....

Personal carbon allowances

- Carbon tax could increase fuel poverty.
- Everyone gets the right to a limited amount of cheap energy. If people want they can buy more at a high price
- Could be a swipe card used when paying energy bills or buying fuel.



Frequent Flyer Levy

- 75% flights are taken by 15% of people
- Frequent Flyer levy: everyone can take one flight a year at usual price.
- Any extra flights pay the levy.
- (Fuel for international air travel and shipping is not taxed)



Like a wartime economy

We need

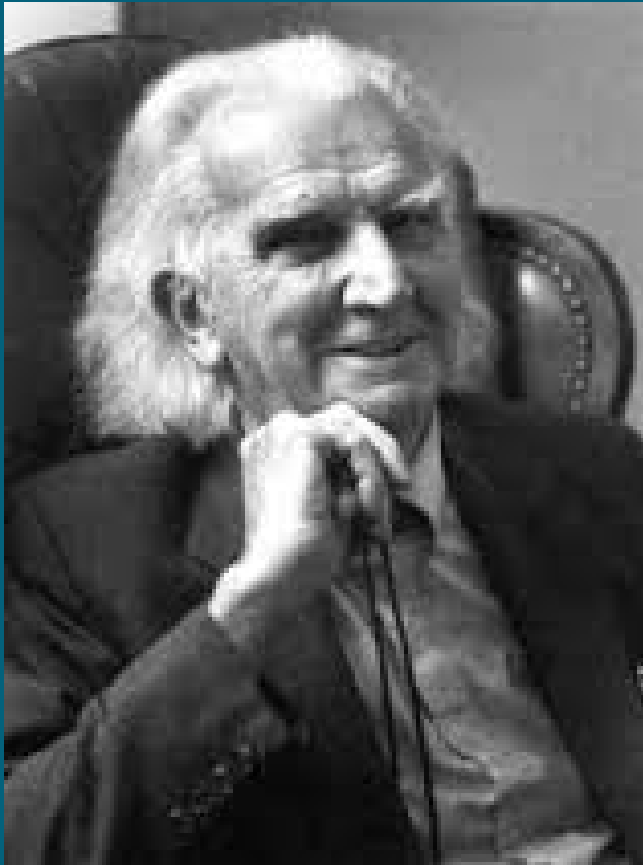
- Changeover to clean energy
- Plant 1.5 billion trees
- Retrofit homes with insulation
- Clean transport infrastructure

Needs direct public investment

‘Green New Deal’ – and more green jobs



Kenneth Boulding



- *'Anyone who believes that exponential growth can go on forever in a finite world is either a madman or an economist.'*

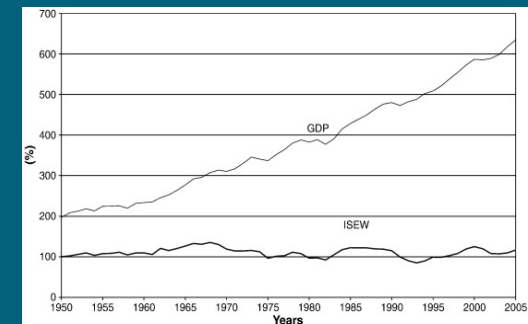
“Economic Growth” (GDP – sum total of all money transactions)

Increased by:

- + Crime
- + Flooding
- + Insurance payouts
- + Pollution
- + War
- + Illness
- + Bankers bonuses
- + Longer hours at work

Not included:

- Environmental destruction or improvement
- Gifts (eg blood donation)
- Unpaid work - carers, family labour, volunteering
- Equality
- Quality of work
- Health
- Happiness
- Free time
- Close relationships



The chancellor's budget statement Spring 2025

1. The Great Economy

- Biosphere measures, soil fertility, forests, fish, bees survival rate
- Greenhouse emissions

2. Human economy

- Wellbeing (subjective+objective – health etc)
- GDP
- Equality
- No of jobs
- Job satisfaction





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Alice Moseley

University of Exeter



What Contribution can Citizens Assemblies make to tackling Climate Change?

Purpose?

Form?

Challenges?

Impacts?



What are they? Purpose & Form

- A form of participatory democracy involving deliberation between a selection of citizens
- Also usually a structured & organised way of feeding into representative democracy
- Citizens meet up with sufficient time, information & expert input, to discuss & deliberate the issues at hand
- Designed to generate recommendations & proposals for policy makers (local, regional or national)
- Often on controversial or challenging issues without clear political consensus









Topics for a climate change CA

What citizens can do to tackle their own use of emissions	What do citizens feel government (central or local) needs to do
What they are prepared to do	Regulation of business & energy companies
Where the resistance lies	Reducing costs & improving access to public transport
What's most difficult to change	Improving home insulation; Greater investment in renewable energy



5 possible challenges

- Gaining buy in from political authorities to run them/ act on recommendations
- Complex issues for lay people to consider in relatively short time
- Many perspectives to cover, sometimes competing or contradictory - reaching consensus not always possible
- Ensuring transparency
- Maintaining involvement – requires ‘civic generosity’



5 potential impacts

- Rebuilding of trust?
- Contribute to creation of new forms of democratic engagement
- Increasing understanding of obstacles to individual action on climate change & of citizen perspectives on government/ LA priorities
- Creating momentum, generating more civic interest & understanding
- Sometimes surprising recommendations that may push society forward; provide the legitimacy for more radical change?

Questions for you!

1. Would *you* take part in a Citizens Assembly on Climate Change?
2. Should there be a Climate Change Citizens Assembly in Devon?
3. Do you feel it would generate political change?
4. Could they be scaled up? 50 Citizens Assemblies across the UK each with 100 Citizens over a year?

Richard Hoggett

University of Exeter

Panel members

- Sophie Sleeman, Fridays 4 Future
- Gill Westcott, Transition Exeter
- Glenn Woodcock, Exeter City Futures
- Diana Moore, Green Party
- Richard Betts, University of Exeter / Met Office

The return of the beaver: why does it matter?

Monday 3 June 2019, 18.00 – 20.00

Public talk by Ben Goldfarb

There are now around ca. 1000 beavers living in Great Britain, the beginning of a great recovery story for a species that was thought until recently to be forever lost from our shores.

How has this happened in the last decade?

<https://returnofthebeaver.eventbrite.co.uk>

Lovelock Centenary: The Future of Global Systems Thinking

29th to 31st July 2019, Exeter

Celebrating James Lovelock's 100th birthday, this special event will take his pioneering approach to thinking about Earth as a living system, and explore how we can apply it to help create a better future.

The conference will feature an interview with Lovelock alongside invited keynotes, panel discussions, break-out workshops and poster sessions.

More information and to register - lovelockcentenary.info



'Can I do anything about Climate Change?'

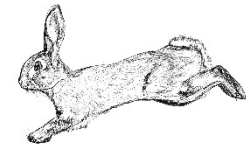
Save the Date - 31st July 2019, Exeter Phoenix, evening event

Public meeting organised Agile Rabbit.

Panel discussion involving:

- Penelope Endersby - MET Office Chief Executive
- Danny Chivers - poet and climate change activist
- Piers Forster - Professor of Physical Climate Change
- Ritula Shah - Radio 4 presenter

More details coming soon - www.agile-rabbit.com



AGILE RABBIT

A climate emergency: what next? An energy policy perspective

- Last year energy use in the UK accounted for nearly 80% of the UK's carbon dioxide emissions. If we are going to tackle the climate emergency energy systems have to change.
- Our energy systems have evolved over decades. They are complex, involving millions of decisions, made by millions of people and businesses, about how they heat and power their buildings, and how they move around, what they buy and sell.
- They involves thousands of companies making investment decisions and developing businesses over long timescales.
- And we need all those decisions, collectively, to add up to an energy system that delivers the outcomes we need. That energy systems which are net zero, secure, affordably and equitable.
- That can only happen if we get the governance right – that is the rules, regulations, institutions and the politics behind them that shape the energy system.
- But the issue is that the governance we have in place has evolved alongside the old dirty energy system and actors that is place.
- It's totally unfit for the challenges of a climate emergency.

To give some examples.....

- There is no clear sense of direction. Different institutions, and different parts of government, work to different aims.
- There are confused signals, and policies chop and change, meaning that there is no certainty for investors.
- Financial incentives aren't aligned with the outcomes we want.
- Energy decision making has largely been delegated from Government to the regulator
- There is a lack of coordination. Change has been left to the market and key institutions are in the private sector and in competition with each other
- Recommendations from the Committee on climate change do not cascade through the system – so many key actors have no direct responsibility for delivering on our climate change targets
- People are at the end of the system and framed simply as consumers of energy
- The list goes on.

If we want to tackle the climate emergency all this has to change.

- Firstly Government should declare a national climate emergency. In the Energy Policy Group we think that should be net zero by 2035.
- We agree with calls that they should then put in place regular COBRA-style meetings to track progress towards net zero. All government departments should have a carbon reduction duty and report on progress.
- It should include regular cross party talks and meetings with devolved assemblies, regional mayors, and combined authorities, to help drive change and track progress.
- It should include significant changes to governance.
- We need an energy transformation commission to work alongside the CCC to coordinate and drive change from local to regional to national and take responsibility for transforming the energy system across heat, electricity and transport.
- We need regulatory reforms, and the changes to institutions
- We need transparent and legitimate decision-making process– so that all parts of society feel they are being engaged and listened to.
- We have to bring together technical evidence, societal and individual preferences
- We have to put a new emphasis on the role of people and place. Energy systems are shaped by people – the way we live, work, relax, get around, and the goods and services we buy. The best solutions for a low carbon future can only be understood at a very local level.
- People should be put at the heart of the energy system and seen as active citizens connected with one another, with views and influence. We need to find new ways for informally and formally engage and work with people to find solutions – they need to be engaged and give consent for the change.
- Local authorities, parish/town councils should have duties and powers for climate change, and that has to be supported by central government.

This is what a climate emergency looks like and it will require a completely new approach to energy governance and system change.

For anyone interested in learning more about Energy Governance we have a free online course launching on 17th June: [Transforming Energy Systems: Why Governance Matters](#)