

**Emma Pinchbeck**  
**CEO EnergyUK**

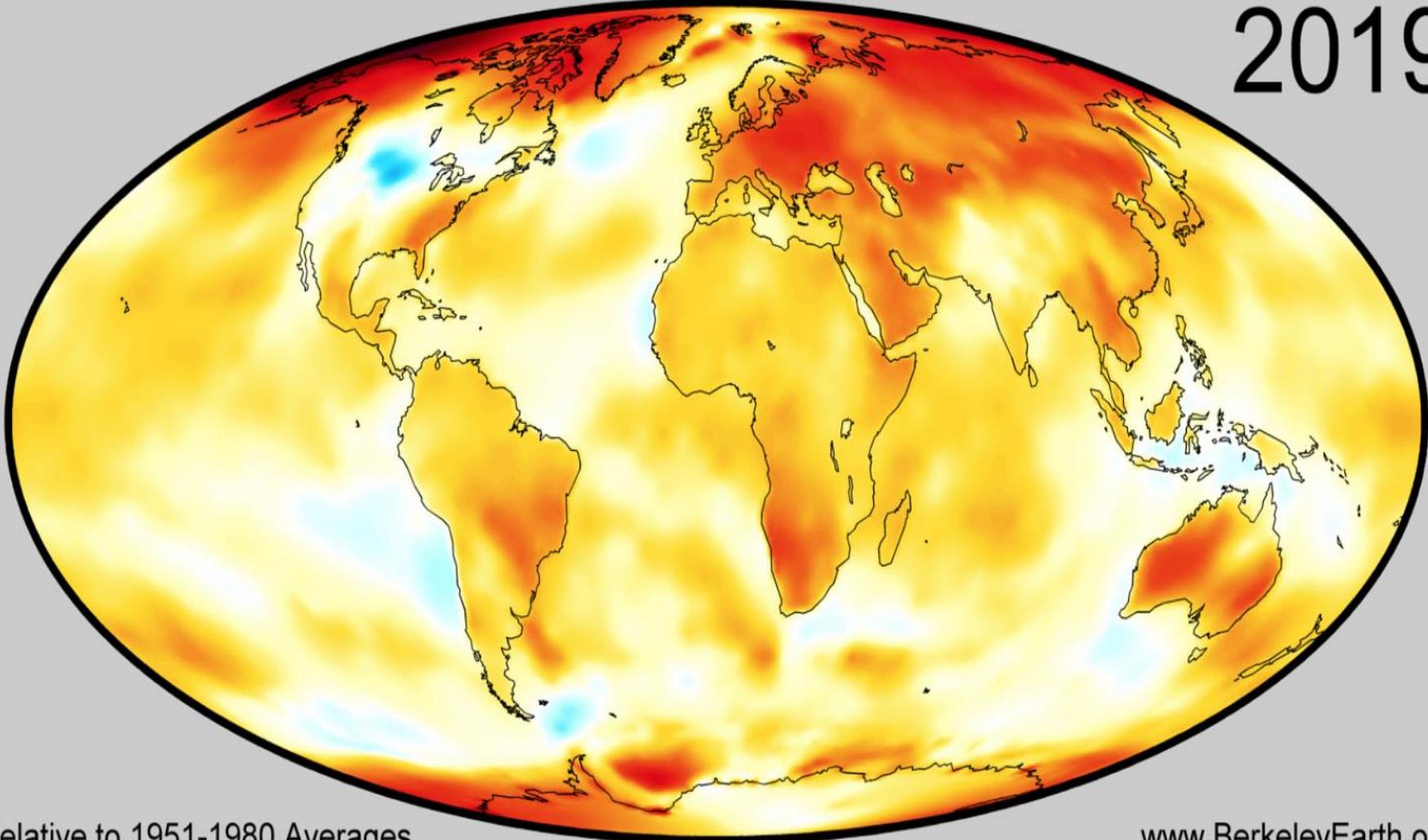
**Twitter: @elpinchbeck**  
**el.pinchbeck@gmail.com**



**I want you to panic. Act like  
your house is on fire.**

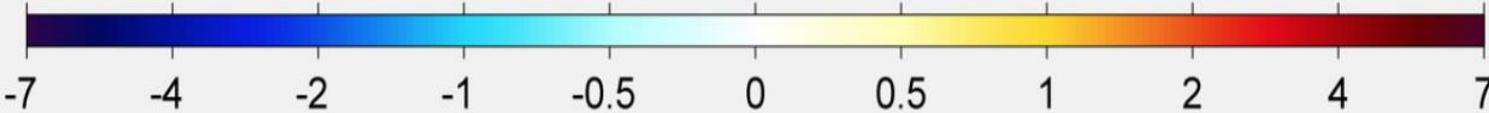
**Greta Thunberg**

2019



Relative to 1951-1980 Averages

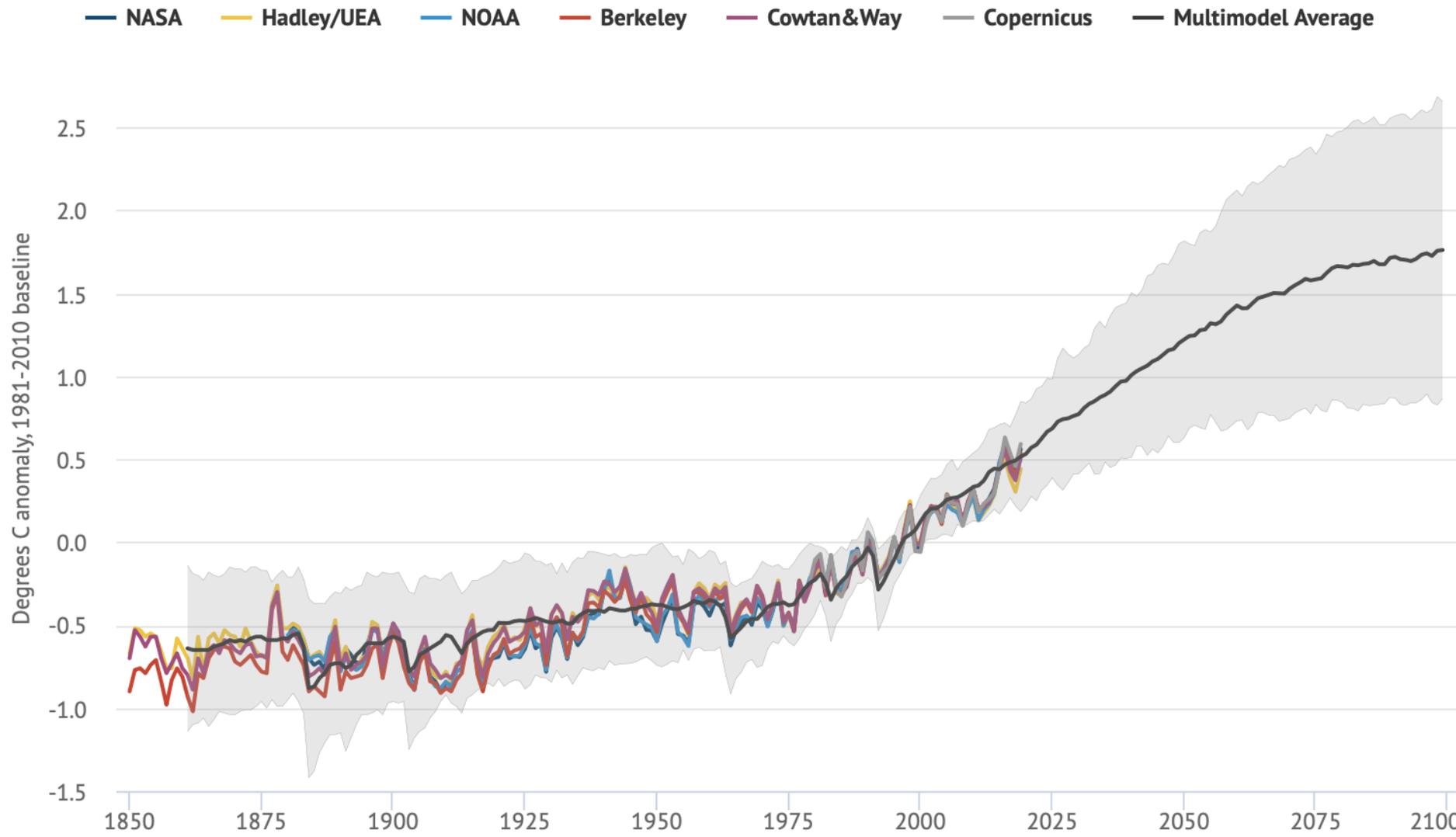
[www.BerkeleyEarth.org](http://www.BerkeleyEarth.org)



Temperature Anomaly ( $^{\circ}$  C)

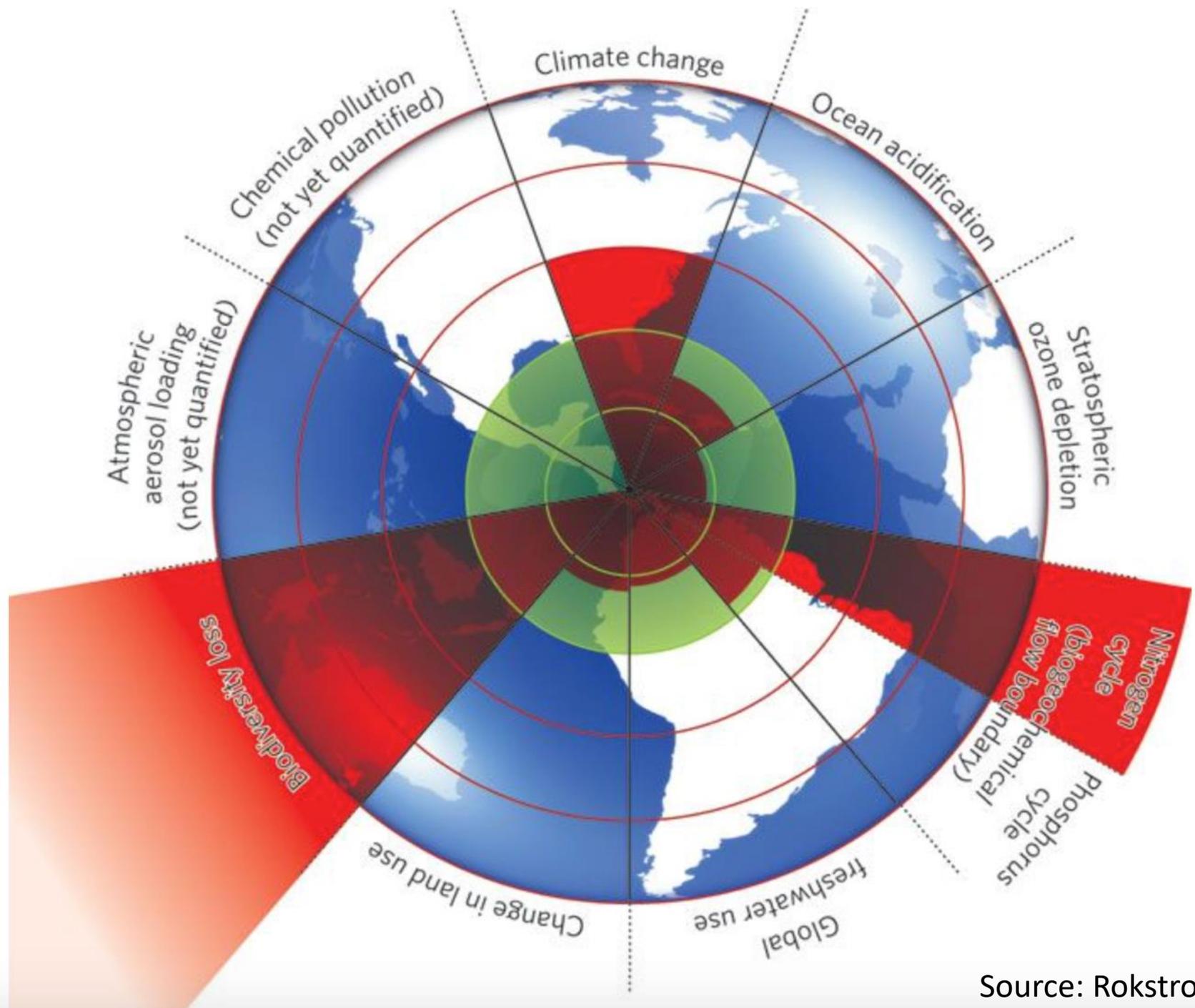
Source: Berkeley

# Global surface temperatures 1850-2100: climate models and observations



Source: Carbon Brief





Source: Rokstromm

**What humans do over the next  
50 years will determine the fate  
of all life on the planet.**

**David Attenborough**



Paris

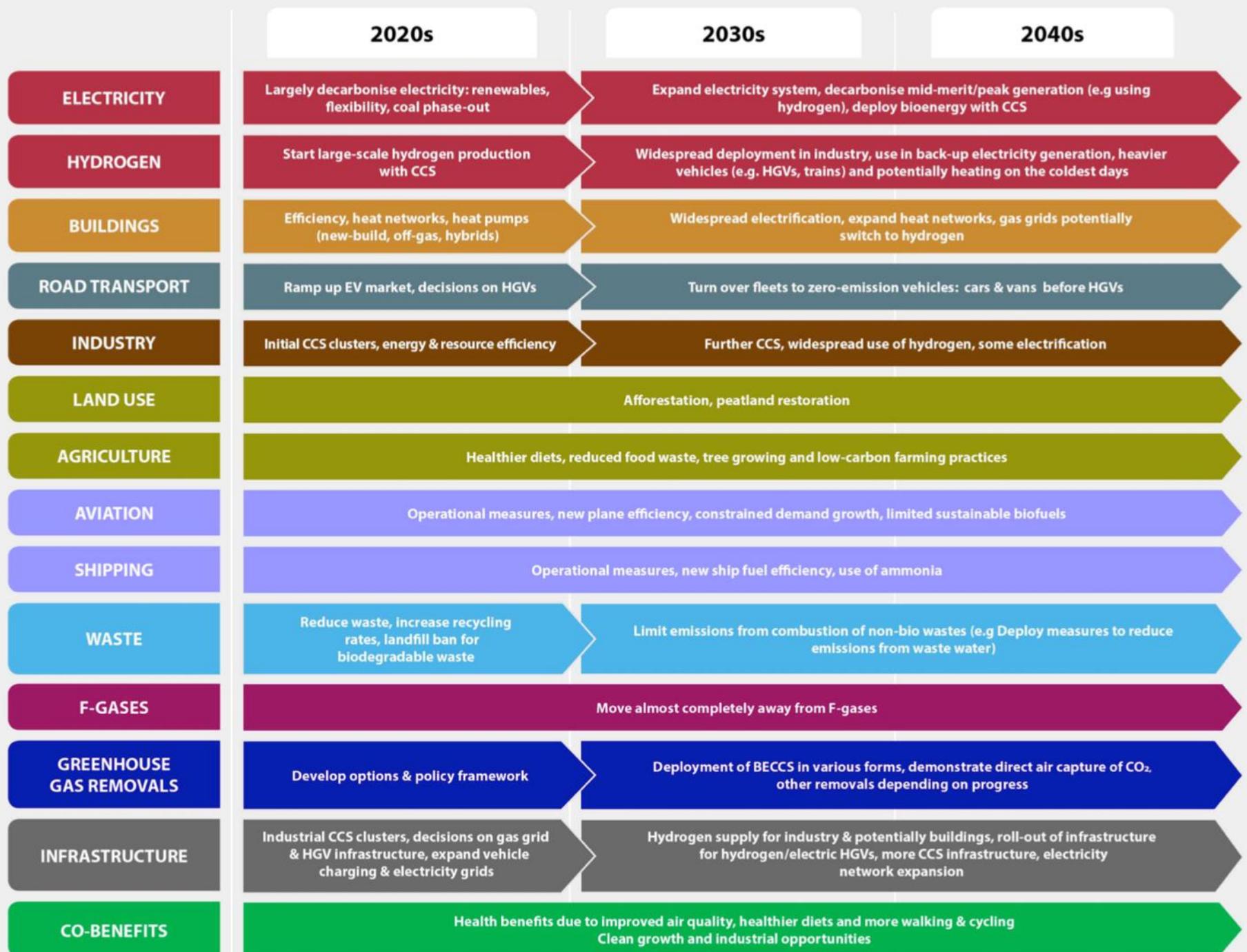
PRESIDENT

evian

ICC

# UNESCO and Sustainable Development Goals

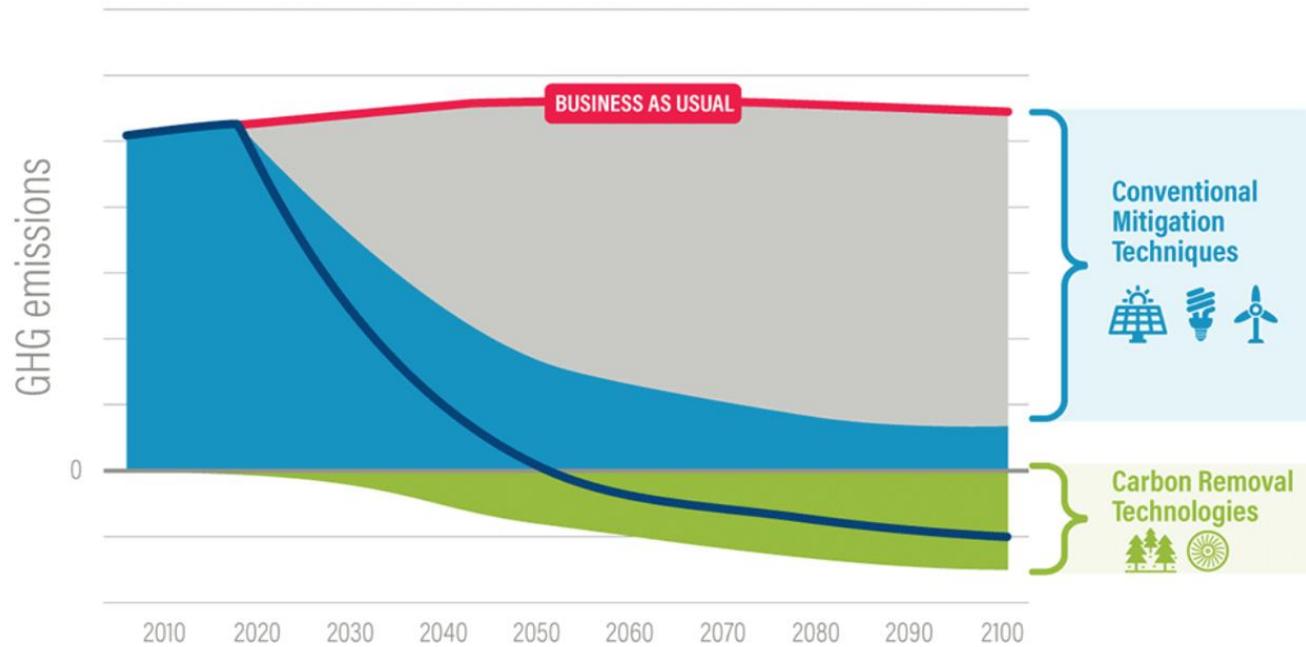
<b>1</b> NO POVERTY 	<b>2</b> ZERO HUNGER 	<b>3</b> GOOD HEALTH AND WELL-BEING 	<b>4</b> QUALITY EDUCATION 	<b>5</b> GENDER EQUALITY 	<b>6</b> CLEAN WATER AND SANITATION 
<b>7</b> AFFORDABLE AND CLEAN ENERGY 	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	<b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE 	<b>10</b> REDUCED INEQUALITIES 	<b>11</b> SUSTAINABLE CITIES AND COMMUNITIES 	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 
<b>13</b> CLIMATE ACTION 	<b>14</b> LIFE BELOW WATER 	<b>15</b> LIFE ON LAND 	<b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS 	<b>17</b> PARTNERSHIPS FOR THE GOALS 	



# NET ZERO

HOW TO GET  
TO NET-ZERO

Remove carbon to balance out remaining emissions

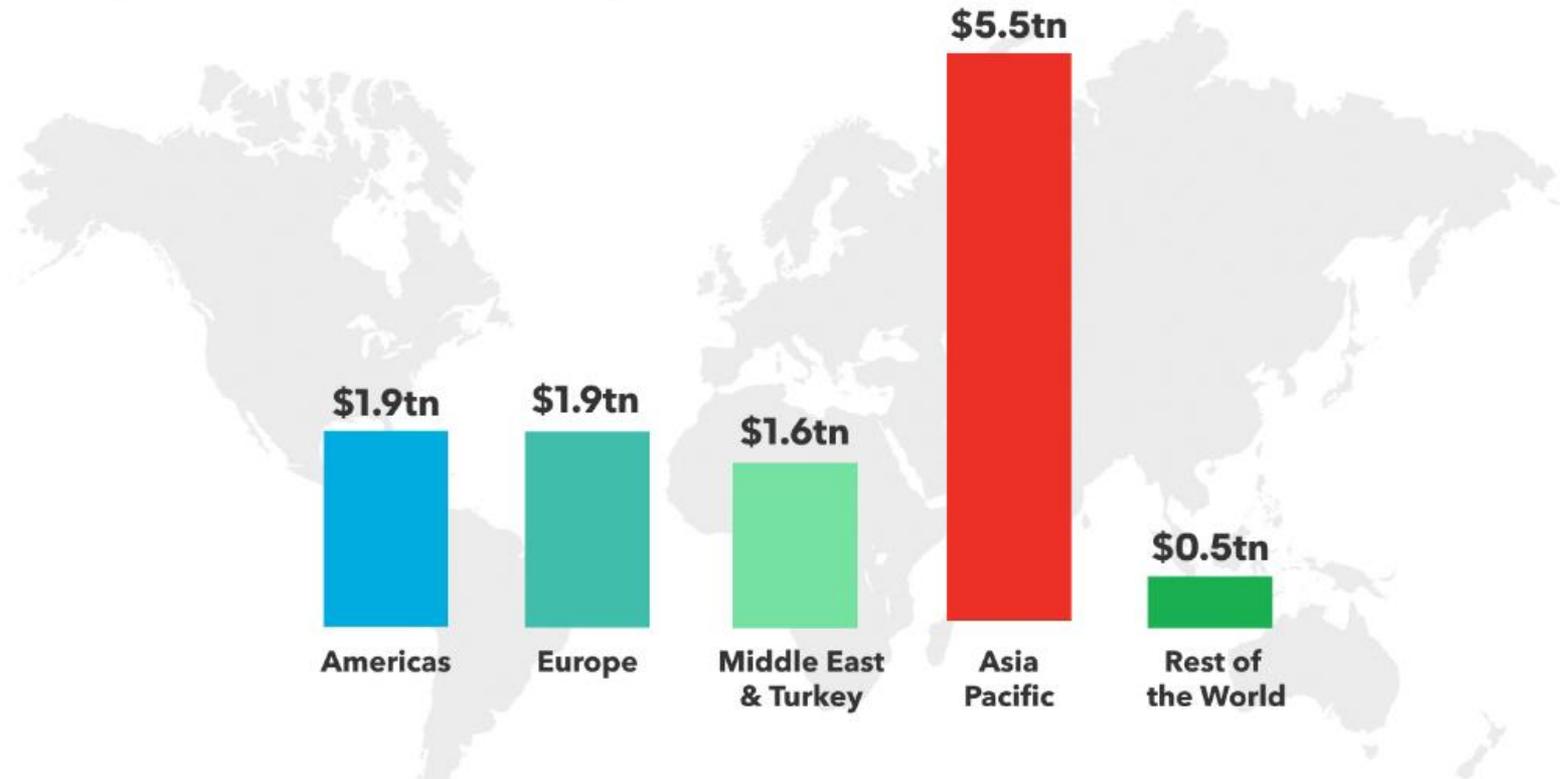


**Capitalism as we know it is dead. This obsession we have with maximising profits for shareholders alone has led to incredible inequality and a planetary emergency**

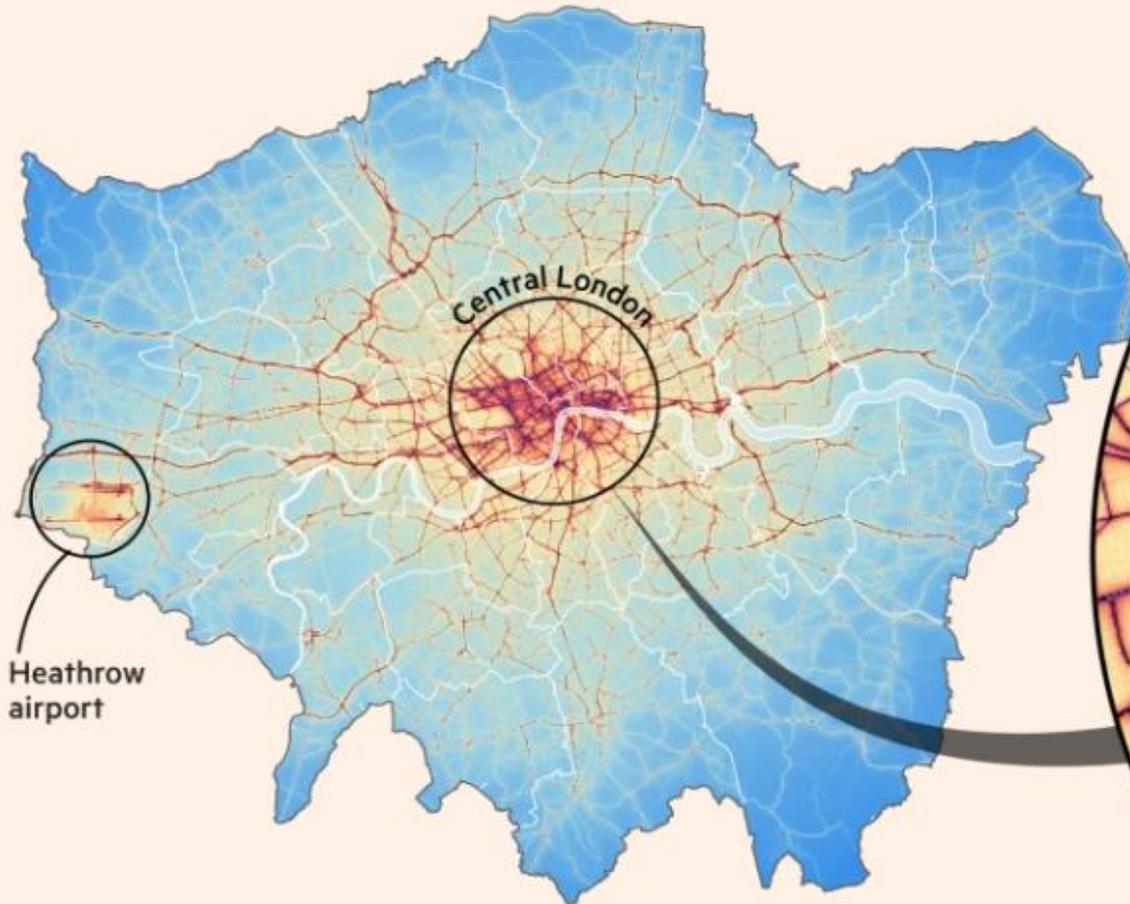
**Marc Benioff, DAVOS**

# INVESTOR BEHAVIOUR

**Investment in power generating capacity by region, 2018-2050 (\$ trillion, 2017 real)**



# London's pollution problem



Annual mean nitrogen dioxide levels (NO<sub>2</sub>, µg/m<sup>3</sup>, 2013)

Limit set by EU



The white areas on the roads indicate **extreme levels of pollution** above 80 µg/m<sup>3</sup>.

The most polluted area, at **Marble Arch**, is over **5 times** the limit set by the EU



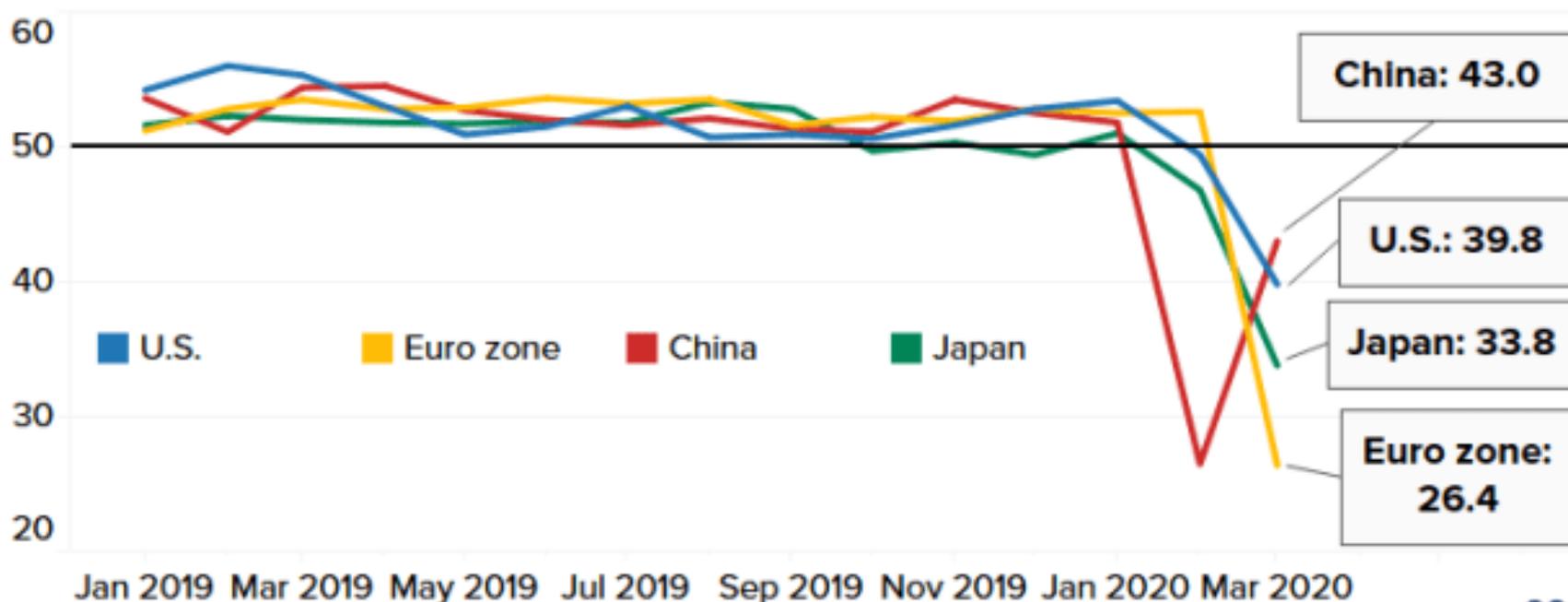
Visual journalism: Steven Bernard

Sources: TfL; King's College; FT Research



## Services activity in major economies

Lines show the Purchasing Managers' Index (PMI), which is an indicator of economic activity. A reading above 50 indicates expansion while below 50 represents contraction



SOURCE: IHS Markit, Caixin, au Jibun Bank, Refinitiv

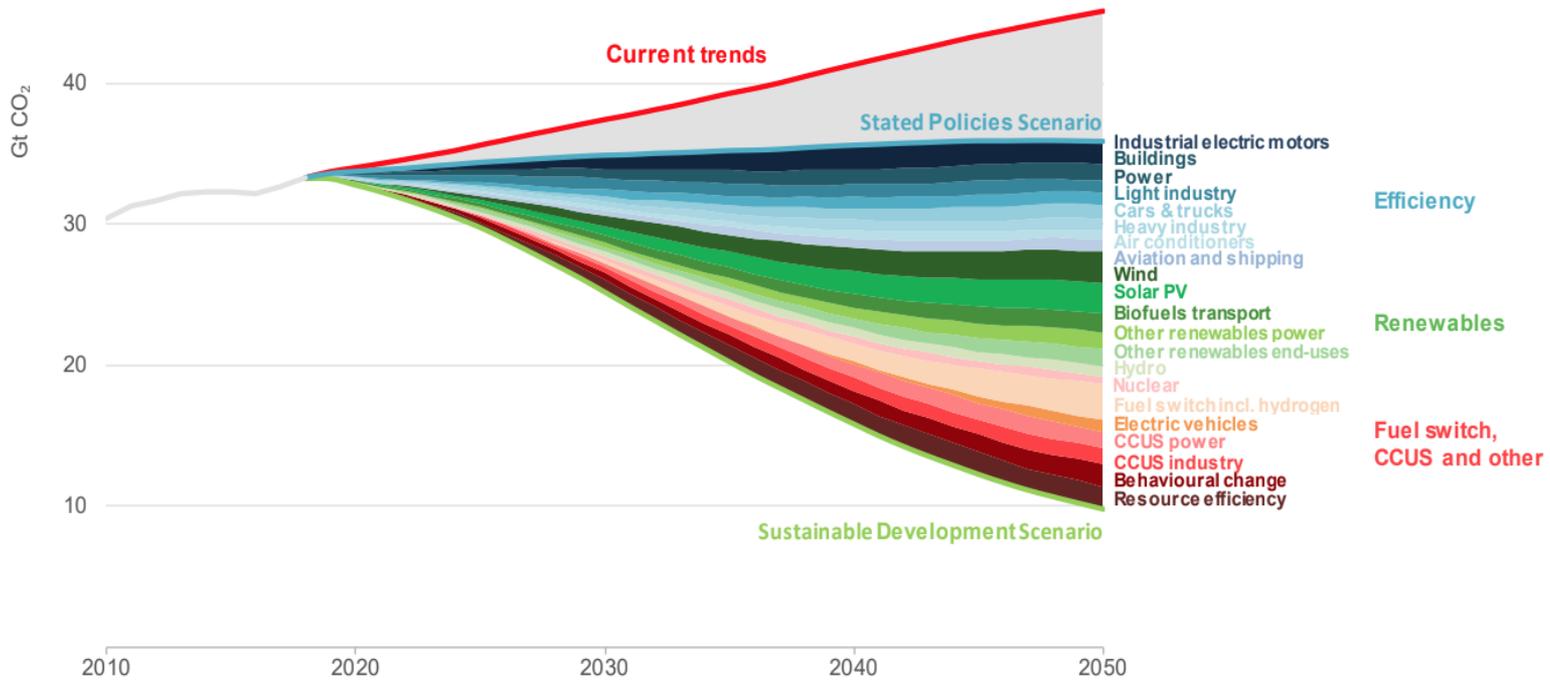


**No country would find  
173billion barrels of oil in the  
ground and leave them there**

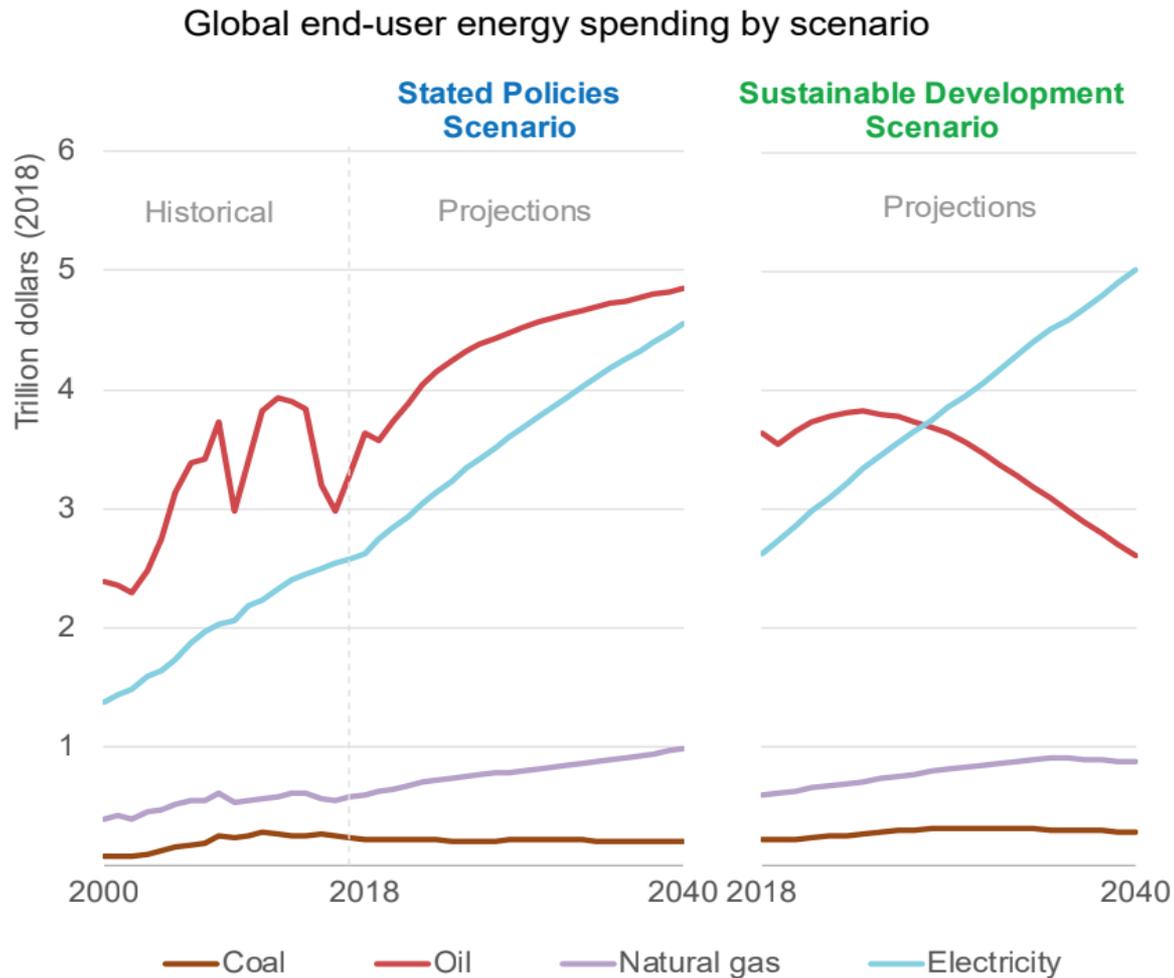
**Justin Trudeau**

# WHOLE ECONOMY

Energy-related CO<sub>2</sub> emissions and CO<sub>2</sub> emissions reductions by measure in the SDS

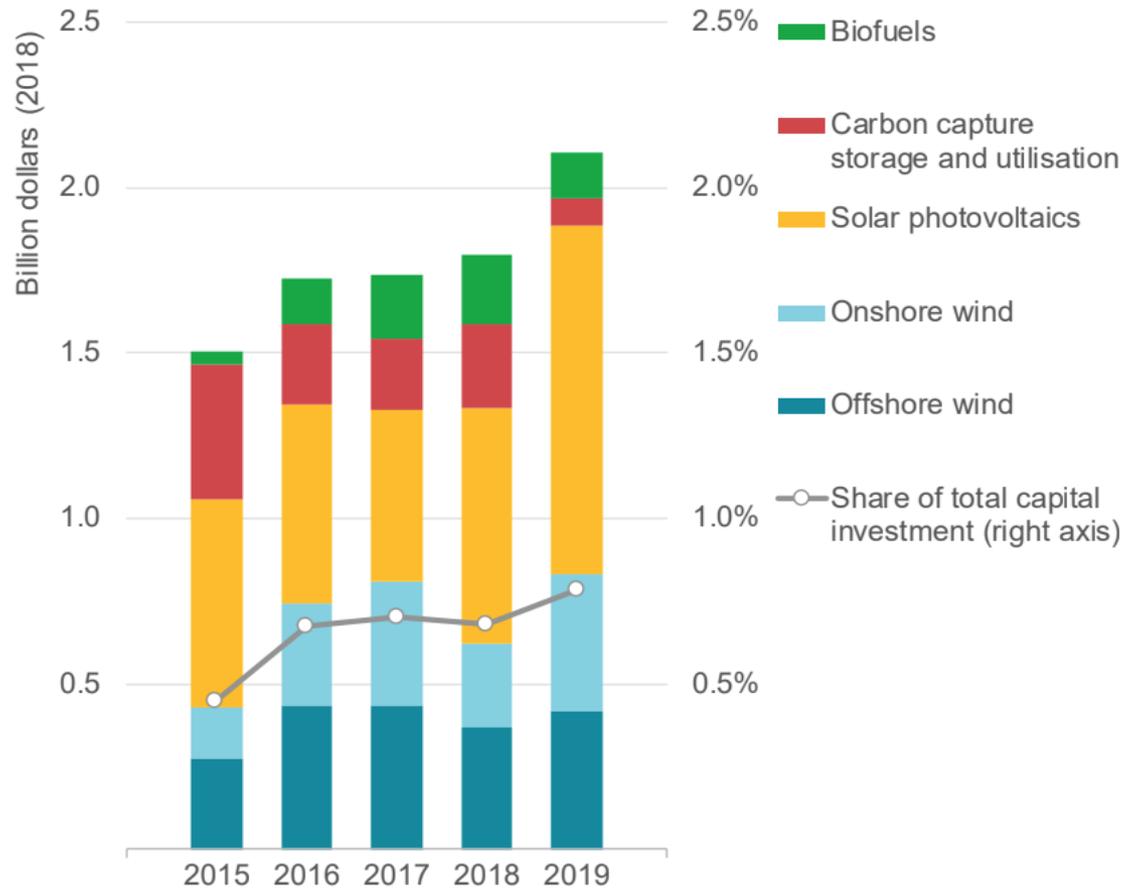


# ENERGY ACCESS & CONSUMPTION



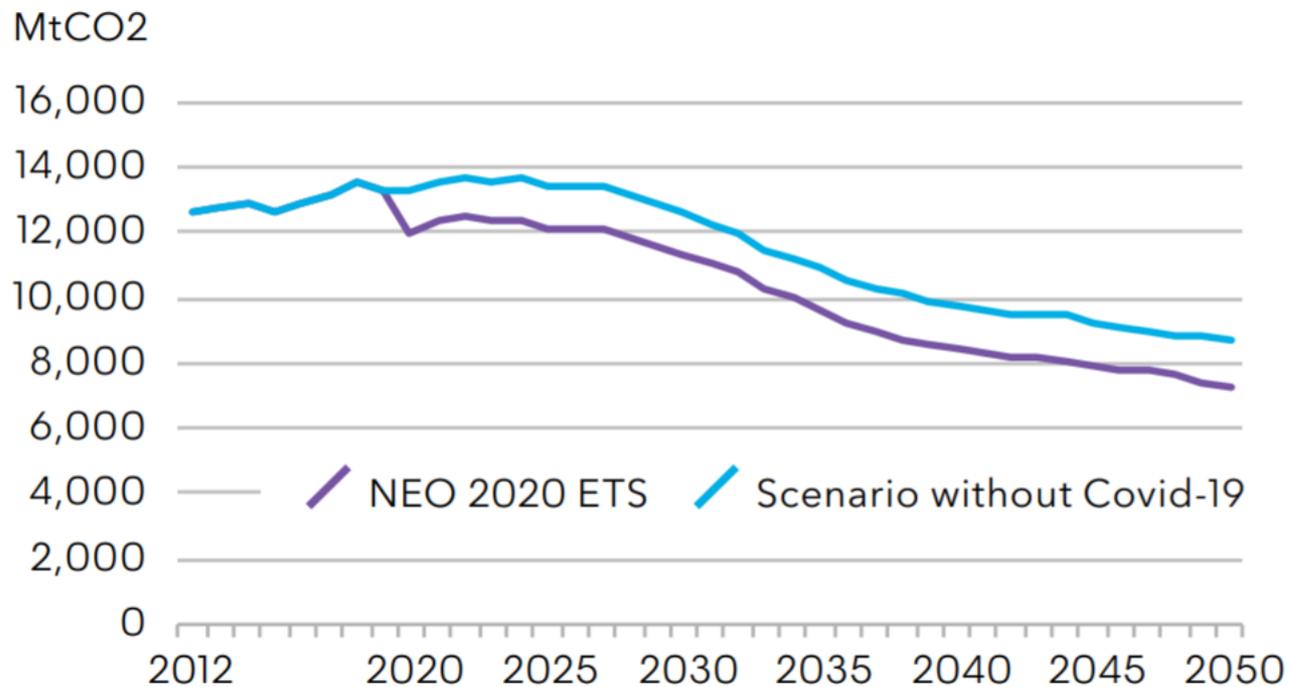
# CAPITAL

Capital investment by large oil and gas companies in new projects outside oil and gas supply



# COVID 19

**Figure 1: Global power sector emissions with and without Covid-19**

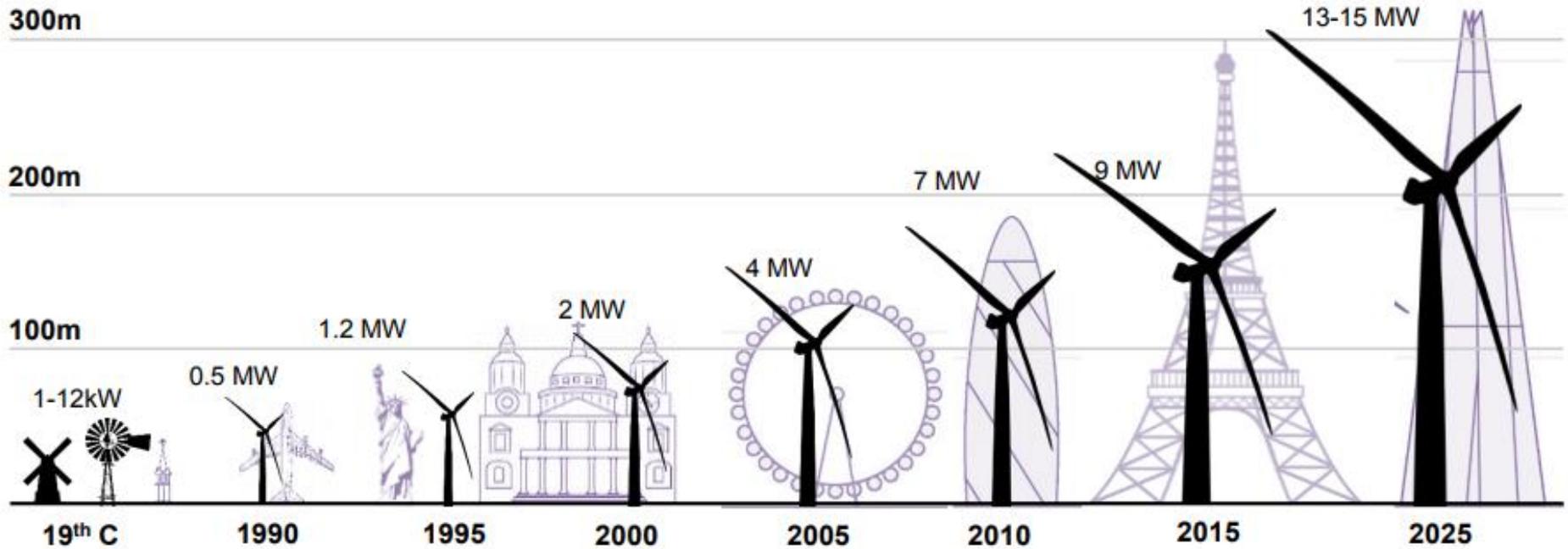


Source: BloombergNEF

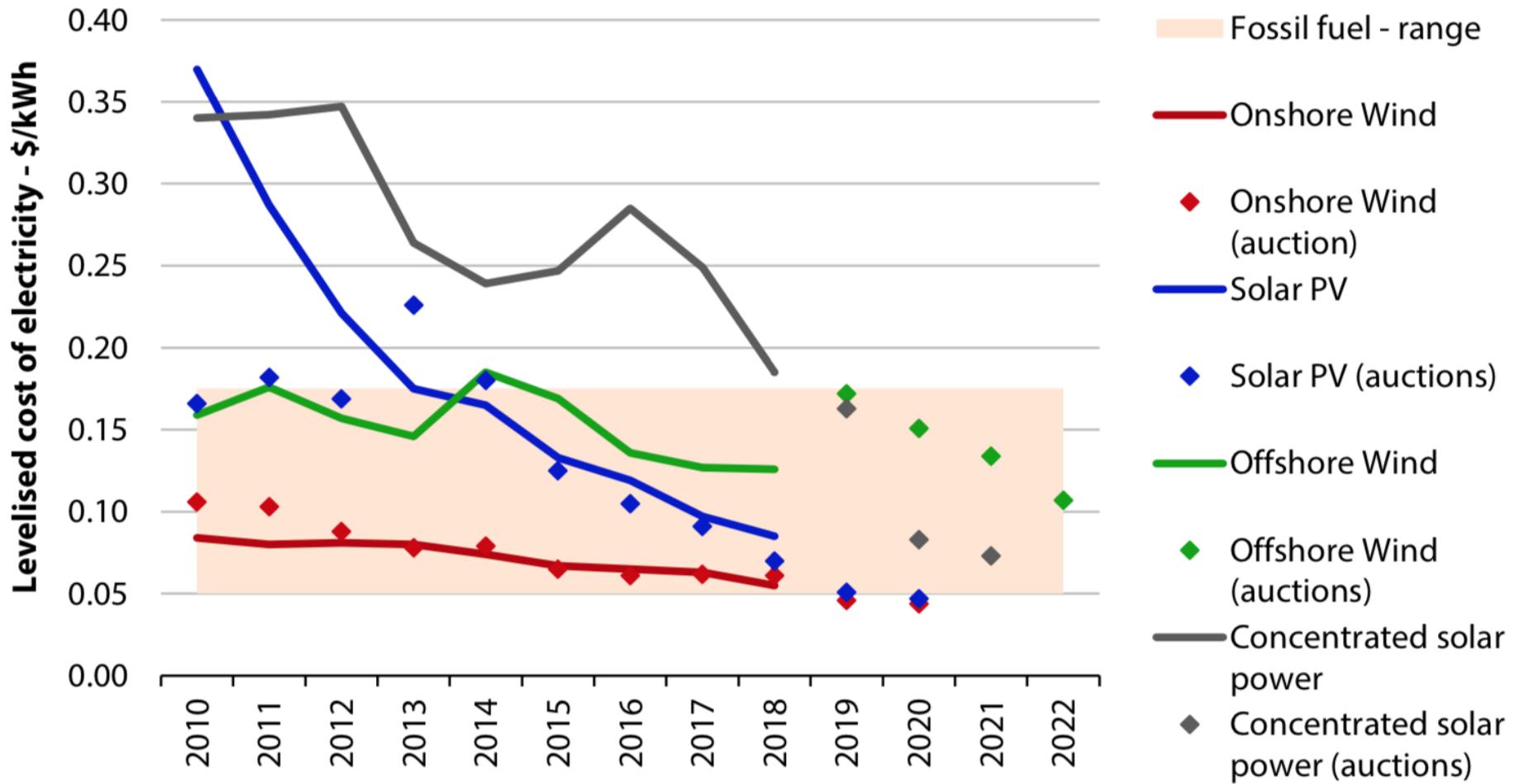
**The future is green energy,  
sustainable energy,  
renewable energy**

**Arnold Schwarzenegger**

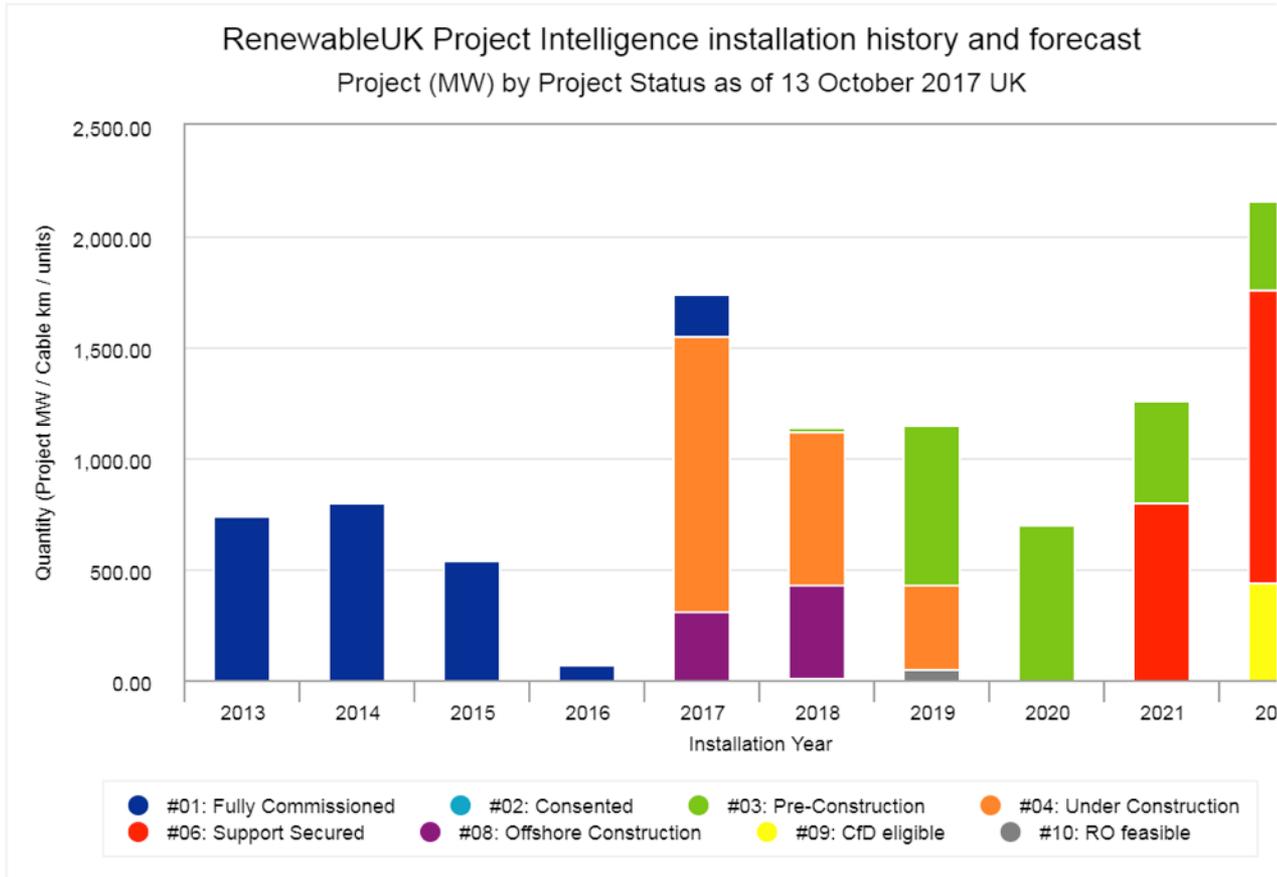
# TECHNOLOGY INNOVATION



# COST REDUCTION



# RENEWABLES INSURGENCY

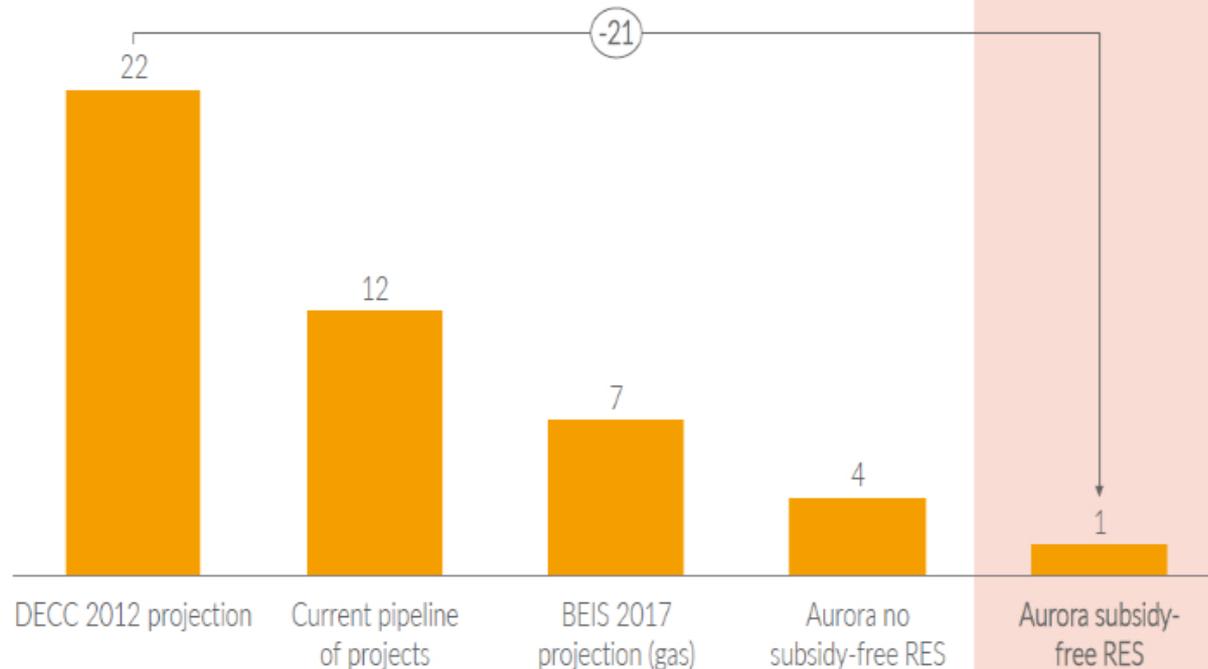


- **Sales of EVs increased 30-fold between 2011 and 2016 at a time of falling petrol prices & high EV costs.**
- **115 EVs were registered every day in the first quarter of 2016, or one every 13 minutes**
- **Globally, EVs will be a 1/4 of new car sales by 2030**

# NEW POWER MARKETS

## Impact on CCGTs

GB new-build CCGT, 2017-2030  
GW

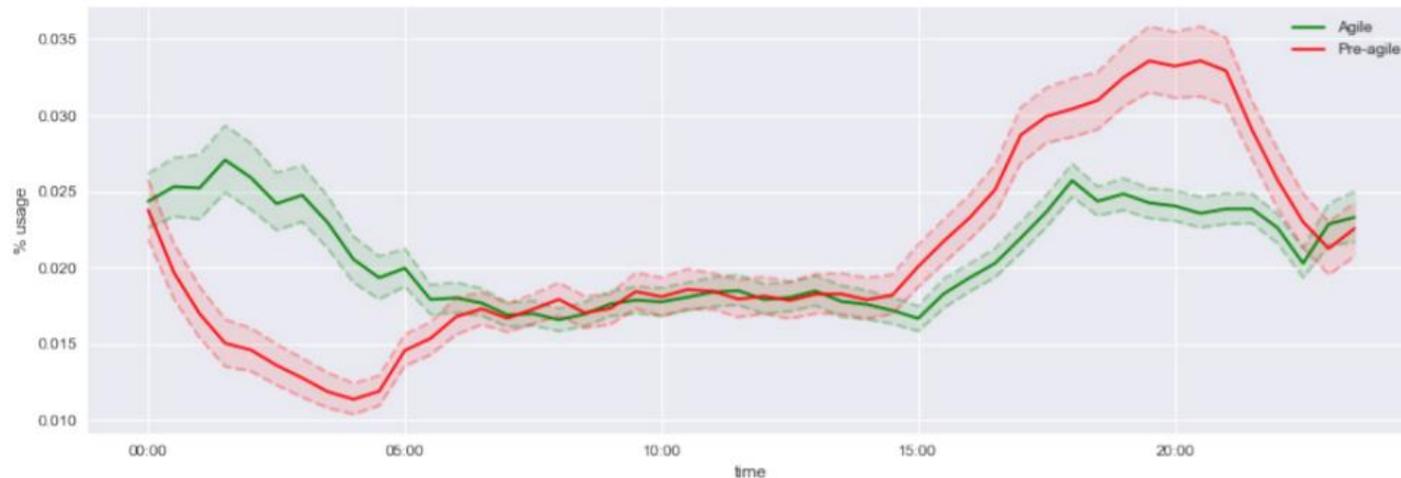


- Low cost of renewables means that subsidy free projects are possible & disrupting markets. RES + Storage could also open up opportunities to bid into Capacity Markets, and balancing services offers Revenue Stacking. It is important to be careful about the definition of “subsidy free”: for Government and investors there may be a role for an enduring CfD.

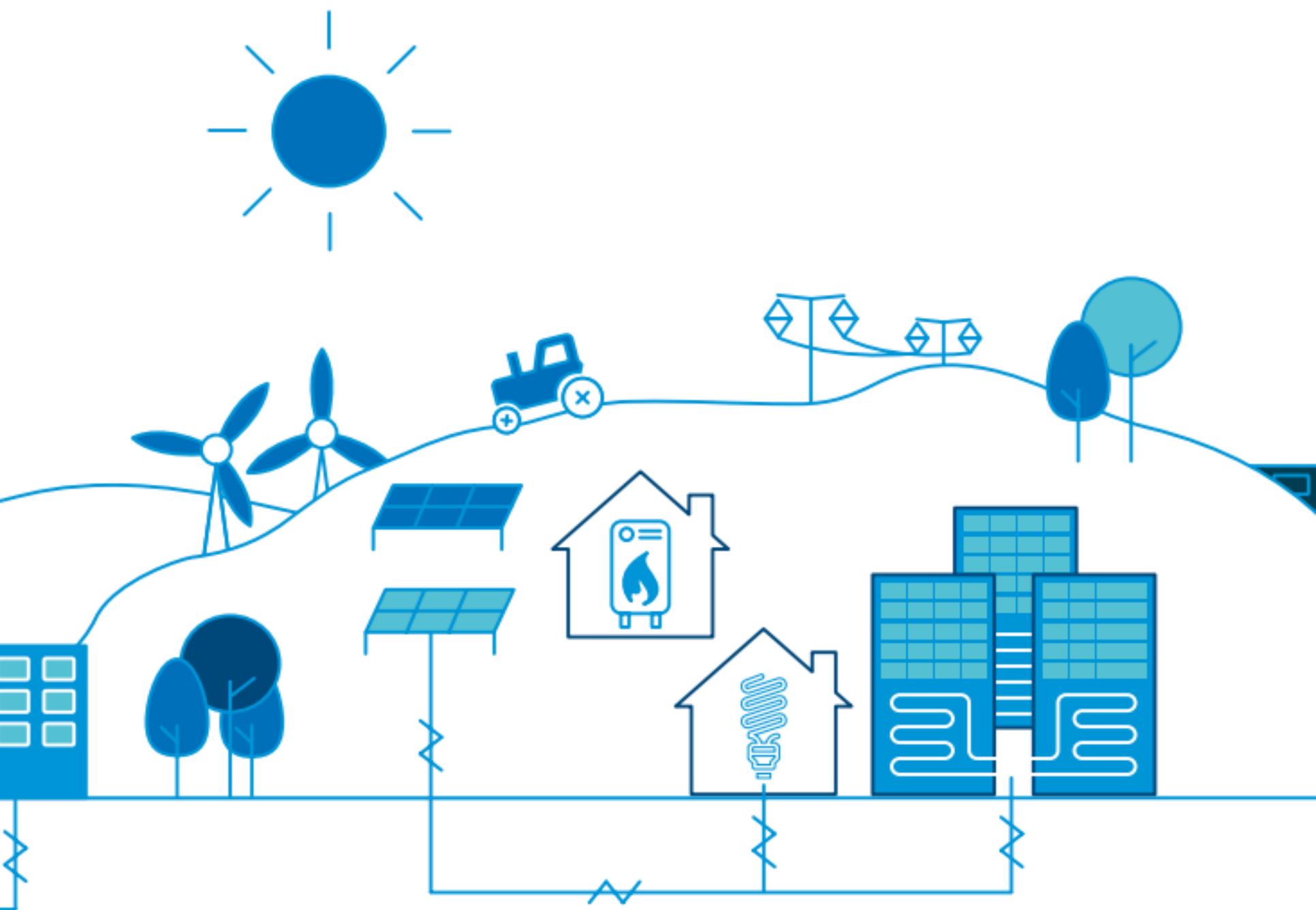
# NEW ENERGY SERVICES

## Consumers trialling Octopus Energy's Agile tariff have significantly shifted their electricity consumption away from peak periods

The graph below shows the electricity usage of the entire cohort by percentage in each 30 minute block. The red 'before' line closely resembles the average profile of standard customers, while the green 'after' line is flattened by comparison, showing reduction in peak usage and an increase in usage during the cheap overnight period.



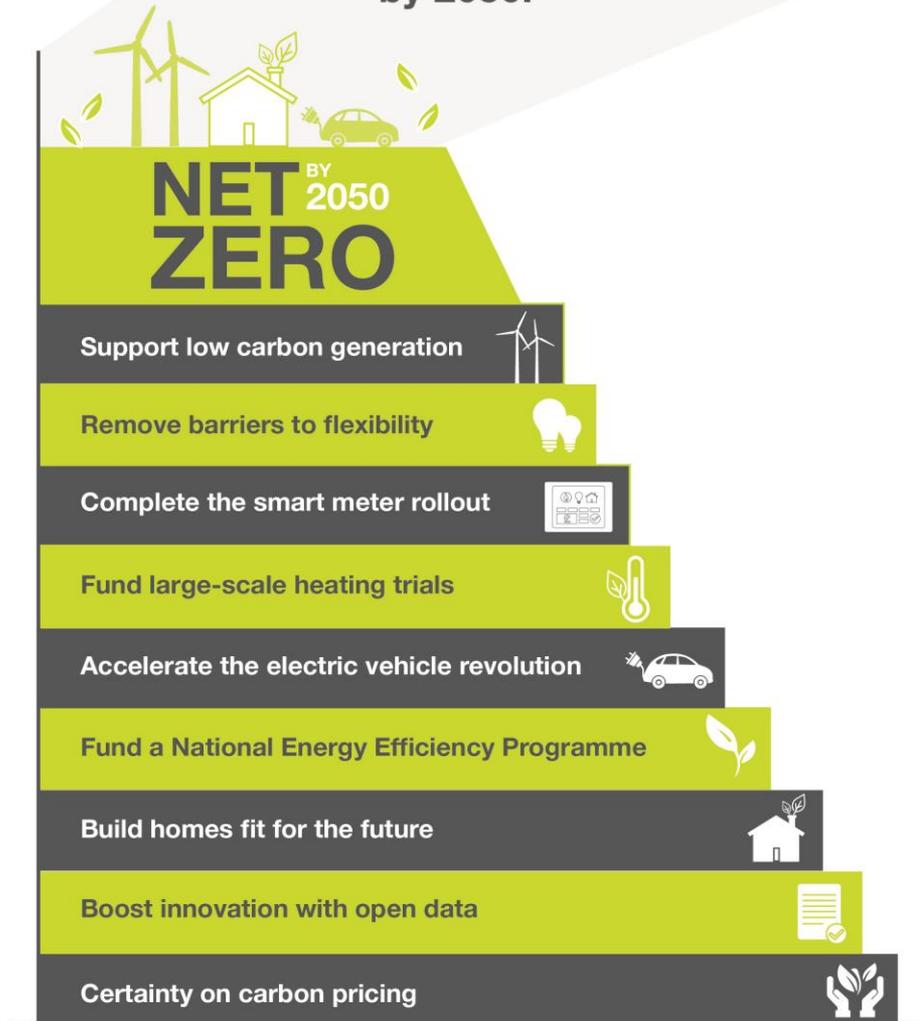
*Dotted lines show the range of variation of usage. Bootstrapping methods have been used to estimate the variances in statistics to provide 95% confidence intervals.*



**When I hear folks say... that the environmental movement is the first to stare down an existential threat, I have to get off the train**

**Mary Heglar**

**Steps to achieving  
a net-zero economy  
by 2050.**



Visit [www.energy-uk.org.uk](http://www.energy-uk.org.uk) to view the 14 Steps the Government can take in the Energy White Paper and Budget to support net-zero economy by 2050.

# The Offshore Wind Sector Deal: Transforming People, Places and Power



## The Offshore Wind Sector Deal:

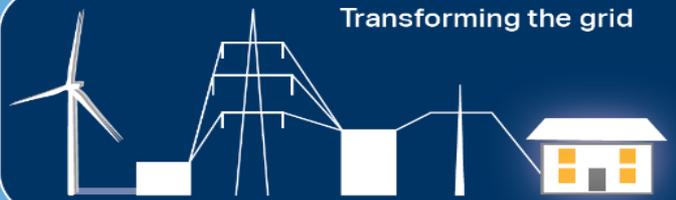
Energising the  
Supply Chain



Regional Transformation,  
mobilising a skilled and  
diverse workforce



Transforming the grid



Grow UK Share

The Davies report (2015) recommended that FTSE 350 boards have at least 33% women on their boards by 2020. The Hampton-Alexander Review (2016) added the same 33% target for senior leadership roles.

- **42% of the UK's top 80 energy companies have no women on their boards.**
- **Women still occupy only 16% of board seats and 6% of executive board positions**



Congratulations to Joe Biden on his election as President of the United States and to Kamala Harris on her historic achievement.

The US is our most important ally and I look forward to working closely together on our shared priorities, from climate change to trade and security.

**PRIME MINISTER BORIS JOHNSON**

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