

Monthly report on research and policy developments
Energy and climate change

April 2023

Purpose: This document provides a summary of recent key developments in policy and research related to energy and climate change. It has been prepared by [ClimateXChange](#) and is intended to keep policymakers informed of issues relevant to the Scottish Government's energy and climate change policy portfolio.

International climate and energy research and policy

2023 will be a turning point for green electricity production

12 April

Fossil fuel emissions from electricity generation are expected to fall this year and continue to drop at an accelerated rate in years to come, according to a report from clean energy think tank, Ember. It attributes the change to the increase in renewable energy generation around the world, particularly in China. Coal powered generation increased by 1.1% in 2022 but overall global energy production was the cleanest ever, with 12% of all electricity generated coming from wind and solar energy.

Source: [Global Electricity Review 2023](#); [BBC](#)

World on track to exceed 1.5C carbon budget in 10 years

19 April

Climate plans set by governments around the world are not enough to limit global warming to 1.5C, according to a United Nations report. Following current policies, the 500 gigatonne carbon budget calculated by IPCC scientists in 2018 will be exceeded within 10 years, according to Climate Home News.

Source: [Climate Home News](#)

G7 ministers set new targets for solar and wind energy

17 April

The Group of Seven nations agreed to speed up renewable energy development, setting targets to increase offshore wind capacity by 150 gigawatts by 2030 and solar capacity to more than 1 terawatt, as reported by Reuters. They also agreed to take steps to accelerate the phase-out of fossil fuels but rejected a proposed 2030 deadline from some members for phasing out coal.

Source: [Reuters](#)

Accelerated coal power phaseout required

6 April

Countries around the world need to stop building new coal power plants and close existing ones at almost five times the current rate in order to meet Paris climate goals, according to a report from Global Energy Monitor. In 2022, the number of operating and planned coal power plants fell in all countries, except China, where there was a sharp increase.

Source: [The Guardian](#)

New global standards for carbon offsets

30 March

Newly published guidance for the US\$2 billion carbon offset market aims to bring transparency to the unregulated market, according to Reuters. To meet the new Core Carbon Principles from the Integrity Council for the Voluntary Carbon Market, carbon credit certifiers have to demonstrate that emissions reductions and removals are genuine and also adhere to additional rules, including respecting the rights of indigenous and local communities, according to the Guardian.

Source: [Reuters](#); [The Guardian](#)

EU Parliament backs climate policy changes

18 April

More ambitious EU climate change policies have been approved by the European Parliament, according to Reuters. The carbon market will see sweeping reforms to cut emissions by 62% from 2005 levels by 2030. Shipping emissions will be added to the carbon market by 2024 and factories will lose free carbon dioxide permits by 2034. Imported high-carbon goods, such as steel and hydrogen, will face levies from 2026.

Source: [Reuters](#)

European countries to expand North Sea wind farms

24 April

Nine European countries have signed a declaration to greatly expand the capacity of offshore wind farms in the North Sea. The plans for Europe's biggest green power plant aim to multiply current capacity to eight times current levels by 2050.

Source: [The Guardian](#)

Proposed EU legislation to discourage deforestation

13 April

EU policymakers are preparing a new law to prevent the sale of goods produced on deforested land. Companies will need to prove that they did not produce goods such as palm oil, coffee and chocolate, on deforested land. It is estimated the law will reduce CO2 emissions from consumed goods in the EU by at least 31.9m tonnes per year, which converts to annual savings of at least €3.2bn, according to Carbon Brief.

Source: [Carbon Brief](#)

India to boost renewable capacity by 250GW by March 2028

3 April

India has announced ambitious plans to boost its renewable energy capacity over the next five years by issuing tenders for an additional 50GW of green energy each year. The country aims to increase the proportion of non-fossil fuel energy from 42.6% to 50% by 2030, according to Reuters.

Source: [Reuters](#)

US pledges US\$1 billion to the UN climate fund

20 April

Joe Biden announced the first cash support from the USA for the UN's Green Climate Fund since 2017. The fund supports developing countries to reduce carbon emissions and adapt to climate impacts.

Source: [Climate Home News](#)

UK climate and energy research and policy

North Sea power line to connect Dutch and UK wind farms

25 April

The UK and Dutch governments have announced plans for a huge electricity cable project in the North Sea, enabling cross-border electricity transfer. It could provide green power to 1.8 million homes in the UK. The LionLink power line could be running by the early 2030s and could have the largest capacity of any cross-border electricity line in the world, according to the BBC.

Source: [BBC](#)

Warnings over blending hydrogen into gas heating

11 April

Blending hydrogen into home gas heating could increase the average UK household heating bill by around £192 a year, according to analysis by climate change think tank E3G reported in the Guardian. A coalition of 20 organisations responded to the recommendations for hydrogen blending given to the UK Government in the Hydrogen Champion Report, warning that as well as costing more to the consumer, the move could delay investment in domestic heat decarbonisation and affect the deployment of hydrogen in other sectors where it would be more cost effective.

Source: [E3G](#); [The Guardian](#)

Road-building activity endangering UK's net zero targets

12 April

The UK Government Department for Transport decarbonisation plan has been updated to take into account updated hybrid vehicle pollution figures and a projected increase in van traffic update, creating an additional 26 megatonnes of carbon emissions. Campaigners are warning that current road-building plans will mean the UK cannot meet its net zero targets, according to the Guardian.

Source: [The Guardian](#)

UK Government axes most senior climate diplomat role

13 April

Nick Bridge, the Special Representative for Climate Change, has left the post after six years and will not be replaced. A previous post holder has stated that the loss will damage the UK's involvement in prompting global action on climate change, according to the Guardian.

Source: [The Guardian](#)

Plans to reduce climate emissions from belching cows

2 April

The UK Government is exploring the use of animal feed products to reduce methane emissions related to the digestion process in cows. Environmental campaigners are urging the government to instead focus on reduction in consumption of animal products as a more effective way to reduce greenhouse gas emissions, according to the Guardian. The farming of cows and other animals creates around 14% of human-induced climate emissions globally.

Source: [The Guardian](#)

Climate science, impacts and adaptation

UN climate report highlights impacts of climate change 21 April

The State of the Global Climate 2022 report from the UN's World Meteorological Organization highlights rapid climate breakdown, with record-breaking heatwaves, ocean heat content and concentration of greenhouse gases, according to Aljazeera. The report is accompanied by a story map, providing information for policymakers on climate change indicators and how improved technology makes the transition to renewable energy cheaper and more accessible than ever, according to the WMO press release.

Sources: [Aljazeera](#); [WMO](#)

Scientists concerned about recent ocean warming and El Niño 25 April

The world's oceans have rapidly warmed recently, with the global sea surface reaching a new record high temperature. Scientists do not fully understand the causes. They are concerned that, together with the forecast El Niño weather event heating the oceans later in 2023, the impacts could be serious for global warming. Climate models showing the return of El Niño suggest there could be a new average temperature record set this year or the next, according to Reuters.

Source: [BBC](#); [Reuters](#)

Ice sheet melting is accelerating 20 April

Earth's frozen poles lost 7,560 billion tonnes in mass between 1992 and 2022, according to researchers working with satellite data. Seven of the years with the most loss of ice due to melting have occurred in the past decade, according to the BBC.

Source: [BBC](#)

Climate change is making droughts faster 13 April

Droughts are being triggered faster due to climate change, according to a new study reported by Associated Press. A new type of flash drought is leaving farmers with no time to prepare and resulting in crop loss and wildfires.

Source: [Associated Press](#)

Climate change caused deadly drought in Horn of Africa 27 April

Droughts like the one occurring in the Horn of Africa for the past two years are at least 100 times more likely due to climate change, a study reported by Carbon Brief has found. The drought in countries including Kenya, Ethiopia and Somalia has sparked a crisis in a region with high levels of acute malnutrition and millions of people displaced from their homes.

Source: [Carbon Brief](#)

Over one-third of new vehicles sold in 2030 forecast to be electric

26 April

Electric cars are on track to make up 18% of sales in 2023 and reach 35% of new vehicles sold in 2030, according to the International Energy Agency's Global EV Outlook report. New policies in the USA and the EU are forecast to accelerate the expansion, resulting in an expanded decline in the demand for oil-based fuels such as petrol and diesel in the road transport sector within two years. The report expresses concerns about the growth in SUV sales, as the larger, more energy-intensive models almost cancel out emissions reductions, according to Carbon Brief.

Source: [Carbon Brief](#)

Kelp forests provide hundreds of billions of dollars in benefits

19 April

Ocean kelp forests provide an average of US\$500 billion in benefits through ecosystem services each year, a study suggests. Despite this, kelp forests are disappearing around the world at an alarming rate from both climate change-related threats and sea urchin grazing, according to the Guardian.

Source: [The Guardian](#)