

Monthly report on research and policy developments
Energy and climate change

September 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

Accelerated action on climate change required

8 September

Global actions to address climate change and its impacts must be accelerated rapidly to meet Paris Agreement goals, according to a key technical report on the global stocktake by the United Nations Framework Convention on Climate Change. The report makes clear that progress has been made, with many solutions to overcome challenges ready to be implemented, but much more needs to be done. Leaders of 20 countries from the High Ambition Coalition, including Ireland, Spain and France, called for faster and stronger action to respond to the climate crisis, saying the report must be a turning point in closing the ambition and implementation gap.

Sources: [UNFCCC](#); [IISD](#)

G20 agree to triple renewable energy capacity by 2030

11 September

Leaders from the G20 reached agreement on tripling renewable energy capacity at a meeting in India, but no agreement was reached on fossil fuels phaseout.

Source: [Climate Home News](#)

EU increases ambition of renewable energy targets

13 September

The European Parliament approved legally binding targets to significantly expand the EU's renewable energy targets, requiring 42.5% of EU energy to be renewable by 2030.

Source: [Euractive](#)

Call for global climate change taxes at Africa Climate Summit

6 September

African leaders adopted a declaration proposing a new global carbon taxation regime at the African Climate Summit. They will use the proposal as a basis for negotiation at the upcoming COP28 summit in November, according to Al Jazeera. Financing for adaptation to extreme weather events caused by climate change and the development of renewable energy were among the main discussion points at the three-day summit in Nairobi.

Source: [Al Jazeera](#)

CXC monthly report on research and policy developments
Energy and climate change – September 2023

Global growth in planned fossil-fuelled power stations 20 September

New oil and gas power plants under development increased by 13% in the past year, especially in China and South-East Asia, according to Global Energy Monitor (GEM).

Sources: [GEM](#); [Carbon Brief](#)

Dutch nomination for new EU Climate Commissioner 19 September

Former Dutch foreign minister Wopke Hoekstra is nominated to become the new EU climate chief, with the backing of Dutch government and European Commission chief Ursula von der Leyen. Some EU lawmakers are concerned about his lack of experience in the area, according to Reuters.

Source: [Reuters](#)

Germany passes law to phase out gas and oil heating 8 September

New heating systems in old and new buildings are to be powered by at least 65% renewable energy under the new German law, which comes into force in 2024 with the transition lasting several years, according to Reuters. New gas heating can be installed after 2024 if it is hydrogen-compatible and could be converted at a later date. The delayed controversial bill has caused tensions in the ruling coalition and is less ambitious than the original draft, according to Reuters. Germany's building sector was responsible for 15% of the country's total emissions last year.

Sources: [DW](#); [Reuters](#)

Germany passes law to make saving energy compulsory 21 September

Saving energy is compulsory in all economic sectors under the new Energy Efficiency Act, which intends to help fight climate change and limit the use of imported fossil fuels. The law includes regulation for energy savings in public buildings, industry and data centres in Germany. It's hoped to result in a 26.5% cut in energy use by 2030, from 2008 levels.

Source: [Reuters](#)

US launches US\$1 billion tree-planting scheme 14 September

Funding for planting and maintaining trees is being made available under the US Inflation Reduction Act, to mitigate effects of the climate crisis, according to the Guardian. The scheme aims to reduce the effects of extreme heat, benefit health and improve access to nature.

Source: [The Guardian](#)

Portuguese youth taking governments to court 27 September

Six young Portuguese people have taken 32 countries to court over climate change. They accuse the countries, including all EU member states and the UK, of not taking the required actions to reduce greenhouse gas emissions under the Paris Agreement. It's the first case of its kind to be filed at the European Court of Human Rights. If they win, it could have legally binding consequences for the governments involved. The verdict is expected in 9 to 18 months.

Source: [BBC](#)

UK climate and energy research and policy

Review of social housing archetypes to support EESSH2 review 7 September

This report defines 24 archetypes for dwellings in the social housing sector, enabling identification of suitable energy efficiency measures and an appropriate zero direct emissions heating system. The archetypes represent a first step towards future development of a 'pattern book' or similar approach, which social landlords could use as a starting point for lowering emissions from their properties. The findings will support the review of the Energy Efficiency Standard for Social Housing 2 (EESH2).

Source: [ClimateXChange](#)

Whole building assessment in multi-owner and mixed-use buildings 13 September

This report outlines three options for how a whole building assessment methodology could be developed in Scotland. These assessments are needed to plan the improvement of building fabric efficiency and installation of zero direct emissions heating systems.

Source: [ClimateXChange](#)

Categorising emissions in non-domestic buildings 15 September

This report assesses relevant options for a method to measure greenhouse gas emissions from heat use in non-domestic buildings, such as public libraries and bus stations. The research found that a categorisation system based on fuel type would provide a practical and feasible foundation for developing and implementing decarbonisation regulations that are enforceable at an individual building level.

Source: [ClimateXChange](#)

Sunak announces major changes to UK green policies 21 September

UK Prime Minister Rishi Sunak has announced delays to several key green policies, including a nine-year delay on the introduction of the ban on new gas boilers and a five-year delay on the introduction of the ban on the sale of new petrol and diesel cars. This major change to the UK Government's approach to achieving net zero by 2050 is likely to face legal challenges, according to the Guardian.

Sources: [BBC](#); [The Guardian](#); [Carbon Brief](#)

Home energy efficiency taskforce disbanded 23 September

The taskforce set up by the UK Government in March this year was created to speed up home insulation and boiler upgrade works. The decision to disband the group comes as part of an overhaul of green policies, including the decision to scrap energy efficiency regulations for landlords.

Source: [BBC](#)

Onshore wind farm planning rules eased in England 5 September

English onshore wind projects planning rules have changed, enabling a faster approval process where there is local community support. The planning rules had previously allowed a single complaint to block a project, creating an effective ban, according to Reuters.

Source: [Reuters](#)

CXC monthly report on research and policy developments
Energy and climate change – September 2023

No bids for offshore wind in government auction

8 September

There were no bids for new offshore wind farms in the UK Government auction, but there were deals for solar, tidal and onshore wind projects. Developers said that the offshore wind projects were not viable due to the low price for electricity generated set by the government, according to the BBC. Despite the setback, UK renewable energy is still cheaper than gas, according to Carbon Brief.

Sources: [BBC](#); [Carbon Brief](#)

UK and Germany in hydrogen energy partnership

26 September

The UK and Germany have signed an agreement to help accelerate the development of a global hydrogen industry. Both countries have already invested significantly in the development of hydrogen as an alternative fuel. They have committed to joint working to further advance renewable hydrogen technologies.

Sources: [UK Government](#); [Reuters](#)

UK pledges £1.6 billion to the Green Climate Fund

9 September

A record UK contribution to the fund that supports developing nations in adaptation and mitigation practices to counter climate change was announced at the close of the G20 summit in New Delhi. The announcement came as a response to Indian president Narendra Modi's call for more financing to support developing nations, according to the Belfast Telegraph.

Source: [Belfast Telegraph](#)

UK Government issues licenses to store carbon under the North Sea

15 September

The Government has awarded more than 20 North Sea licences to gas and oil companies to store carbon dioxide from heavy industry in old oil and gas fields under the seabed. Up to 10% of the UK's carbon emissions could be stored in this way, according to the Guardian.

Source: [The Guardian](#)

Climate science, impacts and adaptation

Investment needed to limit global warming to 1.5C

26 September

Due to the record growth in clean energy technology, including solar panels and electric vehicles, it is still possible to limit global warming to 1.5C, according to the International Energy Agency (IEA) in the updated Net Zero Roadmap, which proposes scenarios to reach net zero emissions by 2050. However, the report makes it clear that increased investment is urgently required, saying that nearly US\$4.5 trillion per year is required in the transition to cleaner energy by the early 2030s, which is a significant increase from the \$1.8 trillion of expected spending in 2023.

Sources: [IEA](#); [Reuters](#); [NPR](#)

Greenhouse gases and global sea levels reached record in 2022

6 September

Earth's greenhouse gas concentrations, ocean heat and global sea levels were all at their highest recorded levels in 2022, according to the State of the Climate report. The annual

CXC monthly report on research and policy developments
Energy and climate change – September 2023

report provides a comprehensive update on Earth's climate indicators and is based on contributions from more than 570 scientists in over 60 countries.

Source: [NOAA](#)

Summer of 2023 was the hottest ever recorded

6 September

The northern hemisphere summer in June, July and August this year saw the global average temperature reach a new high of 16.77C. The new record is 0.29C above the previous record set in 2019, which is a large jump in climate terms, according to the Guardian.

Source: [The Guardian](#)

Climate change exacerbates respiratory illnesses

4 September

Respiratory experts have called for health to be prioritised in the development of climate change mitigation strategies and air pollution reduction policies. Higher temperatures caused by climate change are linked to higher levels of airborne allergens, such as pollen, and the increase in extreme weather events leads to poorer air quality both outside and indoors, according to a statement published by the European Respiratory Society. The statement highlights the increased risks to babies and young children as their lungs are developing and calls on the EU to lower regulatory limits for air pollution, to be in line with the World Health Organization.

Sources: [European Respiratory Society](#); [The Guardian](#)

Heat pumps more efficient than fossil fuel systems in cold weather

11 September

Heat pumps are more than twice as efficient as fossil fuel heating systems in cold temperatures, according to research from the University of Oxford and the Regulatory Assistance Project thinktank. Heat pumps outperform oil and gas heating systems even at temperatures approaching -30C.

Source: [The Guardian](#)

Climate is one of key global systems at fail point

13 September

Climate models suggest that the safe boundary for climate change was passed in the late 1980s, according to an assessment published in Science Advances. The assessment found that six out of nine planetary boundaries for key global systems such as climate, water and wildlife diversity, are damaged beyond their safe operating space for humanity.

Source: [The Guardian](#)

Climate change played a major role in Libyan floods

19 September

Climate change made the storm that contributed to the devastating floods in Libya up to 50 times more likely and brought up to 50% more rain, according to a World Weather Attribution study.

Source: [BBC](#)

World's first clean methanol container ship launched

14 September

Denmark has launched the first of 25 methanol powered ships due to set sail by 2030. It's a milestone for the international shipping industry, which aims to meet net zero by 2050 and currently produces around 3% of global greenhouse gas emissions.

Source: [Euronews](#)

**CXC monthly report on research and policy developments
Energy and climate change – September 2023**

If you require this document in an alternative format, such as a Word document, please contact Christy Brewster on 0131 651 4783 or email christy.brewster@ed.ac.uk