

## Monthly Report on Research and Policy Developments - Energy and Climate Change

October 2016

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

### International Climate and Energy Policy

#### Kigali Deal on HFCs

On 15 October in Kigali, Rwanda, almost 200 countries [agreed to reduce emissions from hydrofluorocarbons \(HFCs\)](#) in a deal which could prevent 0.5°C of warming. The countries successfully negotiated an amendment to the Montreal protocol, agreeing to eliminate 90% of these greenhouse gas emissions. The final agreement caps and reduces the use of HFCs from 2019 - developed countries will start phasing out emissions from HFCs in 2019, with developing countries following in 2024.

Commentators suggest three factors were critical to the deal: countries being allowed different time scales in which to phase out HFCs; major chemical and food companies accepting change; and, the determination of US Secretary of State John Kerry to agree a plan before the 8 November US presidential election.

#### Paris Agreement Update

On 5 October the threshold was reached for the Paris Agreement to enter into force and become legally binding (fifty-five countries, accounting for 55% of global emissions submitting their instruments of ratification). [More countries have since deposited their instruments of ratification](#) – at the time of writing, 100 out of 197 countries. [The Agreement came in to force](#) on 4 November, before [COP22](#) in Marrakech and the US Presidential election.

#### Marrakech Climate Change Conference

The Marrakech Climate Change Conference began on 7 November and runs until the 18 November 2016. This conference will act as the 22<sup>nd</sup> Conference of the Parties (COP22) to the United Nations Framework Convention on Climate Change (UNFCCC), the 12th session of the COP serving as the meeting of the Parties to the Kyoto Protocol (CMP 12), and with the entry into force of the Paris Agreement on 4 November, the first meeting of the Parties to the Paris Agreement (CMA 1).

At the Bonn Climate Change Conference in May 2016, the Ad Hoc Working Group on the Paris Agreement (APA), the Subsidiary Body for Implementation (SBI) and the Subsidiary Body for Scientific and Technological Advice (SBSTA) began talks on several issues essential to the

implementation of the Paris Agreement, [read here for more detail](#).

Many deadlines have been brought forward due to the early ratification of the Paris Agreement meaning some countries could be left out of the decision-making process, which now only applies to Parties that have ratified it. It is expected therefore that countries will have to decide early at the Marrakech conference to suspend the post-ratification format of the talks (CMA1) and resume them in the pre-ratification format (APA). [A preview of issues likely to arise during this round of negotiations can be read here](#).

## UK Climate and Energy Policy

### Energy and Climate Change Committee: Final Report

In July 2016 the UK Department of Energy and Climate Change (DECC) became part of the Department for Business, Energy and Industrial Strategy (BEIS). As House of Commons Committee structures are designed to mirror those in Whitehall, this has meant that the Energy and Climate Change committee has been disbanded with responsibility for scrutinising Government's work on energy and climate change policy moving to the old BIS committee, now the BEIS committee. Before disbanding on 17 October, the Energy and Climate Change Committee published its [Final Report](#), setting out the energy policy implications of leaving the EU and calling on the Government to redesign its Capacity Market to incentivize energy storage and demand side response technologies.

### UK climate action following the Paris Agreement: Committee on Climate Change Report

[The UK Committee on Climate Change \(CCC\) report](#) welcomed the Paris Agreement as a significant step forward in global efforts to take action on climate change. It notes that the commitments made in the Agreement are more ambitious than those made in current UK climate change targets but that it would not yet be appropriate to revise them. The priority should be meeting existing targets.

The report also concludes that in order to meet the commitment made by signing up to the Paris Agreement, the UK Government needs to vigorously pursue the measures required to deliver on existing UK commitments and maintain flexibility to go further and set out a strategy for developing options to remove greenhouse gases from the air.

### Environment, Food and Rural Affairs Committee: Future Flood Prevention Inquiry

In January 2016, the Environment, Food and Rural Affairs (Efra) select committee [launched an inquiry](#) into the winter 2015-2016 floods in England. Since then, the committee has been collecting written and oral evidence on four topics: predicting the future, protecting communities and infrastructure, managing water flows and planning for floods.

[The report on Future flood prevention](#), produced from this inquiry, calls for an overhaul of flood management in England to tackle the rising risk to communities from climate change.

### **Health Professionals call for Phase Out of Coal**

The UK Health Alliance on Climate Change has [published a new report](#), 'A Breath of Fresh Air: Addressing Air Pollution and Climate Change Together for Health'. The report makes the case for much more integrated strategies to address air pollution and climate change.

One of the six key steps the authors outline for the UK Government and health sector to take to improve air quality and tackle climate change in a coherent way includes phasing out coal power stations by 2025.

### **The Impact of Wind Farms on House Prices**

ClimateXChange has published a research project examining the impact of wind farm developments on house prices across Scotland.

[The study](#) includes data for the whole of mainland Scotland for the time period 1990-2014, and looks at the impact of both single turbines and whole wind farms. The analysis was conducted on postcode averages and using methods that follow individual dwellings over time, as well as the effects of properties having a view of the turbine(s) compared to proximity alone. Natural landscape and built environment have been taken into account when estimating whether an individual dwelling can see a wind farm or individual wind turbine.

The findings do not point to a consistent pattern of impact, and, in particular, there are no consistent negative effects on house price growth from being situated near to a wind farm. This lack of a consistent pattern is likely due to the range of factors that affect house prices simultaneously, and to varying degrees in different locations.

### **Scottish Fuel Poverty Report Recommendations**

Two independent reports on Scotland's approach to dealing with fuel poverty were published on 24 October by the [Scottish Fuel Poverty Strategic Working Group](#) and the [Scottish Rural Fuel Poverty Task Force](#).

Both reports were published alongside a [Scottish Government research paper on the likelihood of being fuel poor in rural Scotland](#), produced to help identify and targets households in rural Scotland at high risk of fuel poverty.

## **Climate Science, Impacts and Adaptation**

### **Intergovernmental Panel on Climate Change: New Reports due in 2018 and 2019**

[The Intergovernmental Panel on Climate Change \(IPCC\) has announced plans](#) to produce two new reports over the next two year to address the 1.5°C target as requested by delegates of COP21 in Paris last year. The titles of the two new reports due to be published in 2018 and 2019 respectively are:

- *Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the*

*context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*

- *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*

### **Arctic Summer Sea Ice to Disappear with 2°C Warming**

[A new study, recently published in Science](#), directly links anthropogenic CO<sub>2</sub> emissions and the amount of Arctic sea ice melt they cause as the climate changes.

Researchers involved in the study state that for every tonne of CO<sub>2</sub> emitted into the atmosphere, summer sea ice cover in the Arctic shrinks by three-square meters. If this same relationship holds in the decades to come – which researchers are certain it will – they can quantify how much more CO<sub>2</sub> can be emitted before the Arctic sea is ice-free in summer.

The study states that 1 trillion tonnes of CO<sub>2</sub> is all that can be emitted before the Arctic summer sea ice is gone. This is the same as the IPCC's carbon budget in 2011 for keeping global temperature rise to no more than 2°C.

### **Before the Flood: feature-length climate change documentary released**

The climate change documentary presented and produced by UN goodwill ambassador, environmentalist and actor Leonardo DiCaprio was released in October and made available online to view, free of charge, via National Geographic and [YouTube](#). DiCaprio spent three years making the film, which presents interviews with climate scientists, political and religious leaders, and civil society and explores possible solutions to the climate change problem.