

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

June 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 Energy Policy

Progress on the Paris Climate Agreement

France's climate envoy and Morocco's environment minister released a [detailed agenda](#) to boost international cooperative action to rapidly cut emissions and adapt to climate change. The agenda called for governments, cities and business leaders to publish 'low emissions development strategies' setting out their plans to radically [cut emissions by 2050](#). The European Union [called on its own member states](#) to speed up ratification of the Paris Agreement to avoid being left behind in international efforts. France this month became [the second EU member to ratify the Paris Agreement](#), following Hungary. French President, François Hollande, encouraged other European countries to follow France's lead by the end of the year. However, many EU member states are reluctant to ratify before the bloc agrees how to share the burden of cutting its emissions.

Norway has ratified the Agreement, its parliament having agreed to cut the country's net greenhouse gas [emissions to zero by 2030](#). Germany, however, [reportedly watered down](#) its sector emissions targets and a plan to phase-out coal-fired electricity before 2050. Indian Prime Minister Narendra Modi announced during a visit to the White House that his government aims to ratify the Paris Agreement by the end of this year. [Reuters reported](#) that such a move could bring the enactment of the Agreement years ahead of schedule. Modi announced, following talks with President Obama, that India is [considering 'umbrella legislation'](#) to achieve cross-sector emissions reductions.

Climate Policy published a review of countries' [compliance in the first commitment period of the Kyoto Protocol](#) (2008-2012) providing evaluation of the world's first international treaty on climate change.

EU meets emissions target six years early

The EU joined [Scotland](#) in [reaching its emissions target](#) six years ahead of schedule. EU emissions were 24% below the 1990 baseline in 2014, passing the bloc's 20% target for 2020. The biggest savings were in manufacturing, power generation and residential heating (assisted by a mild winter). It is expected that emissions will further decrease until 2020, but additional policies will need to be implemented to achieve the [2030 target](#) of a 40% emissions cut. Campaigners used the milestone

achievement to [call for more ambitious targets](#).

International Energy Policy

India the key to future emissions trends: Bloomberg

Bloomberg New Energy Finance's [New Energy Outlook 2016](#) reported that India will continue to rely heavily on coal despite its investment in nuclear and renewables. This is expected to result in a trebling of its annual power sector emissions by 2040. An extra US\$5.3 trillion investment in zero-carbon power would be needed by 2040 to prevent power-sector emissions rising above the IPCC's 'safe' limit of 450 parts per million. India will become the 'key to the future emissions trend', as changes in China's economy and energy supply lead to a downturn in its coal-fired power generation over the next ten years. The 2016 Outlook puts China's coal-fired generation over the next ten years at 21% lower than predicted last year. Global coal and gas prices are expected to remain low in the long term due to oversupply, however wind and solar voltaics will become the cheapest forms of electricity production in many countries during the 2020s, and in most of the world in the 2030s. Japan is likely to meet its 2030 emissions target, despite [coal becoming its leading power source by 2019](#).

BP released its [Statistical Review of World Energy](#), which found that global primary energy consumption grew by just 1.0% in 2015, the smallest advance since 2009.

Renewable energy investment

Global renewable energy policy network, Ren21, [reported that renewable energy investment](#) in the developing world has [surpassed that in developed countries](#) for the first time. A record amount of renewable power capacity was installed worldwide last year as solar and wind became more competitive with fossil fuels. A total of around £197bn was spent on renewables in 2015, with £107bn spent in developing countries including China, India and Brazil. Carbon Brief [presented further data](#) on global renewables investment.

Indonesian President, Joko Widodo, released a roadmap for energy development for his country, calling for a [five-fold increase in renewable energy investment](#) to 2025. [Nature Energy published a study](#) which found that wind power could meet 26% of China's total electricity demand by 2030.

The US, Canada and Mexico pledged to [produce 50% of their electricity from 'clean' technologies by 2025](#).

UK Climate Policy

Parliament to approve 57% emissions reduction target

UK Government officials announced that Parliament is [set to approve](#) a 57% emissions cut by 2032 (based on 1990 levels), as recommended by the Committee on Climate Change (CCC) in its [Fifth Carbon Budget](#). The Government has committed to publishing an Emissions Reduction Plan, setting out how it expects to meet the target, towards the end of the year. Energy Secretary, Amber Rudd told a business and climate summit in London that 'climate change has not been downgraded as a threat', despite Britain's decision to leave the EU.

Stronger policies required to match ambition

The Committee on Climate Change stressed in its eighth [Progress Report to Parliament](#) that current policies are not sufficient to meet the requirements of the fifth carbon budget. UK emissions fell by 13% in the last three years to 38% below 1990 levels in 2015. This is consistent with previous carbon budgets. However, almost all emissions reductions were achieved in the power sector as a result of reduced use of coal and increased generation of electricity from renewables. The Committee warned that the current rate of progress could not be sustained solely through emissions reductions in the power sector. It called for stronger low carbon policies in the Government's Emissions Reduction Plan, prioritising support for energy efficiency in buildings, carbon capture and storage technology and mature low-carbon technologies, such as onshore wind and solar. It also recommended extending vehicle emissions standards beyond 2020, with support for the development of electric vehicle charging infrastructure, to reduce emissions in the transport sector.

UK Energy Policy

Energy and Climate Change Committee recommends National Grid break-up

The House of Commons Energy and Climate Change Committee called on the UK Government to set out plans to for more localised control of Britain's energy networks. The Committee's [Low Carbon Network Infrastructure Inquiry](#) found that changes to the operation of Britain's energy network are required to better manage the connection of new, more localised energy sources. Its recommendations included the transfer of system operation from National Grid to an Independent System Operator (at the national level) and Distribution System Operators (at the regional level). The Committee referred to the successful establishment of the Independent System Operator (ISO) model in the United States. [National Grid rejected](#) this recommendation. The Renewable Energy Association [welcomed the Committee's recommendation](#) that the Government review regulations to support the deployment of energy storage, demand side response and the connection of low carbon generating technologies.

DECC's allocation of renewables subsidies could hinder competition: CMA

The Competition Markets Authority (CMA) found that the Department of Energy and Climate Change's (DECC) approach to delivering renewables subsidies could hinder competition in the energy market. The Authority's [investigation into the energy Market in Great Britain](#) found DECC's move to deliver subsidies through the competitive Contracts for Difference (CfD) process to be a positive step in ensuring an efficient allocation of support. However, DECC's decision to limit the technologies eligible to compete for CfDs was found to adversely impact on competition. A CfD auction planned later this year will only be open to 'less established' technologies such as offshore wind, with no subsidies being made available to onshore wind and biomass. DECC has indicated that it will continue to also deliver subsidies through bilateral negotiations, as it has done for nuclear and tidal lagoon developments. The CMA found that such circumvention of the competitive auction mechanism risks establishing contracts that do not deliver value for money. It recommended that DECC undertake, and disclose the outcome of, an impact assessment before awarding CfDs outside the auction mechanism. It also recommended that DECC consult on a clear and thorough assessment of the appropriate allocation of technologies eligible for CfD budgets. DECC responded to the CMA's recommendations in a [letter dated 22 June](#).

A [survey of 438 energy professionals by the Energy Institute](#) found that policy uncertainty is [detering investment in UK nuclear power and renewables](#). A group of eleven major energy and technology firms claimed in an open letter this month that [offshore wind can match coal and gas for price within the next decade](#), but only if its prioritised by policymakers. RenewableUK claimed that onshore wind is the cheapest form of new electricity generation in the UK, [but is only viable in the windiest parts of the UK](#), which excludes development in England and Wales.

DECC consultation on heat networks

[DECC opened consultation on a plan](#) to provide £320m of capital support for heat network investment in the UK. This consultation seeks stakeholder views on how best to use the capital support funding to overcome barriers to investment in heat networks and increase heat network deployment rates. It seeks views on the organisations and types of schemes that should be eligible for investment support, what form this funding should take, and the criteria that should be used to assess applications for funding.

Climate Impacts and Adaptation

Environmental Audit Committee calls for more a proactive approach to flood risk management

The [Environmental Audit Committee released a report](#) finding that the UK Government is failing to protect communities at risk of flooding in England. The Committee criticised the Government's lack of long-term strategic planning to manage flood risk, which has resulted in a 'reactive' approach to funding flood defenses. It found that the condition of critical flood defenses is in decline as a result of reduced funding. It also expressed concern that the Government does not know how prepared local authorities are for mitigating future flood events or whether local flood plans are fit for purpose. It found that the extent to which the Environment Agency's advice on whether, or how, to build in high flood-risk areas, is not systematically monitored, reported or followed up through the planning system. Infrastructure companies were found to be adopting varying degrees of flood preparedness

and the Government had failed to ensure a consistent and robust approach is taken to protecting essential services.

The scope of the Audit Committee's report did not cover Scotland, as flooding is a devolved issue. ClimateXChange will next month publish an [assessment of the consideration of flood risk by Scottish local authorities](#). The report provided recommendations for improving the application of Scottish Planning Policy through the preparation of Local Development Plans and local development management practice. Its recommendations focus on improving the assessment of flood risk, including the impacts of climate change, as well as prioritising the avoidance of flood risk.