

The UK nuclear energy case study: UK nuclear, renewables, climate change, and the EU energy policy

Weekly news, events and policy updates

4 January 2016

POLICY, LEGISLATION AND REGULATION

ACER/CEER: Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2014

Nov 2015

We are pleased to present the fourth annual Market Monitoring Report produced by the Agency for the Cooperation of Energy Regulators (the Agency) and the Council of European Energy Regulators (CEER). As in previous years, this Report aims to provide a comprehensive assessment of developments in the electricity and gas sectors and on progress towards the implementation of the Third Energy Legislative Package and the completion of the internal energy market (IEM).

Department of Energy and Climate Change: Towards a Smart Energy System

17 Dec 2015

This document sets out:

- Some of the key challenges our energy system faces as we seek to power our economy and decarbonise cost-effectively.
- How a smart, flexible system would help us meet these challenges more cost-effectively.
- The potential barriers and market failures that could stand in the way of smart Energy.

6th Report of Session 2015-16

18 Dec 2015

House of Lords - European Union Committee, EU energy governance

European Council Conclusions on energy and climate policy

18 Dec 2015

The European Council welcomes the historic outcome reached in Paris where the world adopted the first-ever global and legally-binding climate agreement with the aim to hold the global warming well below 2°C and to pursue efforts to limit it to 1.5°C. It invites the Commission and the Council to assess the results of COP21 by March 2016, in particular in view of the 2030 climate and energy framework and to prepare the next steps.

European Commission's annual report on the implementation of nuclear safeguards in 2014

21 Dec 2015

No nuclear material misused in the EU in 2014.

DECC Review - December 2015

21 Dec 2015

ACADEMIC ARTICLES AND RESEARCH

UCL Annual Energy Review 2014/2015

18 Dec

The review provides an overview of the research projects of the UCL Energy Institute, including the research on energy decarbonisation and climate change, and a list of publications by their staff in the field.

The relationship between economic growth, energy consumption, and CO2 emissions: Empirical evidence from China

Science of The Total Environment Volume 542, Part A, 15 January 2016, pp. 360-371
Shaojian Wang, Qiyang Lib, Chuanglin Fang, Chunshan Zhou

Abstract

Following several decades of rapid economic growth, China has become the largest energy consumer and the greatest emitter of CO₂ in the world. Given the complex development situation faced by contemporary China, Chinese policymakers now confront the dual challenge of reducing energy use while continuing to foster economic growth. This study posits that a better understanding of the relationship between economic growth, energy consumption, and CO₂ emissions is necessary, in order for the Chinese government to develop the energy saving and emission reduction strategies for addressing the impacts of climate change. This paper investigates the cointegrating, temporally dynamic, and casual relationships that exist between economic growth, energy consumption, and CO₂ emissions in China, using data for the period 1990-2012. The study develops a comprehensive conceptual framework in order to perform this analysis. The results of cointegration tests suggest the existence of long-run cointegrating relationship among the variables, albeit with short dynamic adjustment mechanisms, indicating that the proportion of disequilibrium errors that can be adjusted in the next period will account for only a fraction of the changes. Further, impulse response analysis (which describes the reaction of any variable as a function of time in response to external shocks) found that the impact of a shock in CO₂ emissions on economic growth or energy consumption was only marginally significant. Finally, Granger casual relationships were found to exist between economic growth, energy consumption, and CO₂ emissions; specifically, a bi-directional causal relationship between economic growth and energy consumption was identified, and a unidirectional causal relationship was found to exist from energy consumption to CO₂ emissions. The findings have significant implications for both academics and practitioners, warning of the need to develop and implement long-term energy and economic policies in order to effectively address greenhouse effects in China, thereby setting the nation on a low-carbon growth path.

Keywords: Economic growth; Energy consumption; CO₂ emissions; Cointegration tests; Granger causality tests

MEDIA AND BLOGS

Stimulating 'Creative Destruction' to Transform How We Use Energy

Posted on 16 Dec 2015

By P. Kivimaa & F. Kern

Given the urgency of climate change, it is unfortunate that the recent 'reset' of UK energy policy missed a big opportunity. That is to take a more strategic approach to developing public policies to drive the rapid, transformative change required to reduce energy use and decarbonise its supply in order to reduce greenhouse gas emissions.

UK announces cut in solar subsidies

Posted on 17 Dec 2015

By Roger Harrabin, BBC environment analyst

Subsidies for small scale solar electricity panels on homes are to be cut, the government has announced, although by less than expected.

UK government hands out new fracking licences

Posted on 17 Dec 2015

By the guardian

The government's controversial attempt to establish a shale gas industry in the UK took another step forward on Thursday when it handed out new licences for onshore gas and oil exploration in 159 blocks, in a move campaigners say could open up swathes of the countryside to fracking.

UK cuts to renewable energy make a mockery of its pledge at Paris climate talks

Posted on 17 Dec 2015

By the guardian

"My priority is to ensure energy bills for hardworking families and businesses are kept as low as possible," said energy and climate change secretary Amber Rudd, announcing sweeping cuts to renewable energy subsidies on Thursday.

2016 Look Ahead for Nuclear Energy

Posted on 21 Dec 2015

By Dan Yourman

This is the annual look ahead for the global nuclear energy industry. While it is too early to predict whether the high concept promises of the COP 21 climate change conference will translate into concrete being poured for nuclear power stations, there are a number of positive developments.

Addressing Remaining Concerns About Nuclear Energy

Posted on 24 Dec 2015

By Rod Adams

In recent years, critical thinkers who have habitually objected to using nuclear energy have conceded that it has a good safety record and that its CO₂ and other air pollution emissions are a tiny fraction of produced by the most

efficient natural gas power plants. They also recognize that nuclear power plants, unlike power sources that depend on the weather, can be controlled by operators or automation to produce power on demand.

Uranium prices set to march higher as climate deal boosts nuclear

Posted on 28 Dec 2015

By Reuters, C. Denina

Uranium prices are expected to outperform other commodities in 2016 and beyond as a global climate change deal and growing demand from Asia bolster the prospects of the nuclear industry.

Wylfa nuclear plant closes in Wales

Posted on 30 Dec 2015

By T. Macalister, the guardian

Station in Anglesey, the oldest in the UK, shuts as focus is on energy provider EDF over its plans for new facilities at Hinkley Point.

EVENTS

2nd Annual Lecture of the Energy and Natural Resources Law Institute

13 Jan: The Energy and Natural Resources Law Institute, Centre for Commercial Law Studies at Queen Mary University of London requests the pleasure of your company at the 2nd Annual Lecture sponsored by Clifford Chance. Sir David King, Special Representative for Climate Change, will speak about "Climate Change: Post-Paris Energy Transition." Participation by registration and invitation: contact Stacey Simner at stacey.simner@cliffordchance.com or +44 20 7006 2653.

Nuclear energy: the future or the past?

28-30 Jan: Ditchley Foundation, Chair: Lady Judge CBE. This conference aims to bring together practitioners and experts from the industry and beyond, including politicians and journalists, for a dispassionate look at the prospects for this vital industry, away from some of the emotion generated on both sides by current public discourse, and to help identify ways forward good for both the climate and consumers.

CCLS Energy Forum Debate on Climate Change

4 Feb: at The Law Society, Chancery Lane. Programme TBA soon.

Workshop on Financing Innovation in Renewable Energy: who is doing what, where and when?

11 Feb: by SPRU and Bloomberg New Energy Finance (BNEF). Registration necessary: contact Aoife Bruce A.Bruce@sussex.ac.uk.

UK energy security: supply, storage and resilience

15 March : Guest of Honour: Daniel Monzani, Head, Security of Electricity Supply, Department of Energy and Climate Change. This seminar will provide a timely opportunity to assess initiatives and policy priorities for energy security of supply - labelled 'the number one priority' by Amber Rudd in her recent policy speech. Delegates will consider the future mix of electricity and gas generation sources for the UK, including the roles that unconventional gas and nuclear power will play alongside traditional fossil fuels following the announcement of a £1bn Shale Wealth Fund in the Autumn Statement.

Next steps for UK domestic energy efficiency policy

28 April: Guest of Honour: Richard Mellish, Deputy Director, Home Energy, Department of Energy and Climate Change. This conference will assess the future direction of policy on energy efficiency for households and options for Government following the expected announcement of a successor scheme to the Green Deal early in the new year.

Nuclear energy in the UK: innovation, skills, and supply chain development

9 Jun: Guest of Honour: Matthew Clarke, Deputy Director, Nuclear Generation and International, Department of Energy and Climate Change. This seminar will assess the latest developments in UK nuclear energy policy, including progress towards delivering new nuclear power stations such as Hinkley Point C and Moorside in Cumbria.

Energy Systems Conference: 21st Century Challenges

14-15 Jun: The Energy Institute and Elsevier. Topics: Energy policy, Energy economics, Energy security, Energy systems, Disruptive energy technologies, Integration, The grid, Case studies, Infrastructure, Urban transition, Public engagement, Innovation, Life cycle assessment (LCA), Climate change.