ONLINE EVENT

UCD ESRI Energy Policy Research Conference

Thursday 24th September | 9.30am

Welcome to the annual UCD ESRI Energy Policy Research. This year the event is a half day event and will take place online. We are delighted to have Matthew Collins, Assistant Secretary General (Energy) DCCAE to open the event and look forward to a series of interesting presentations from researchers in both ESRI and UCD Energy Institute.

Agenda

9:30 Opening by Matthew Collins, Assistant Secretary General (Energy) DCCAE

9:45 Welcome by Andrew Keane (UCD Energy Institute) and Alan Barrett (ESRI)

10:00 Session 1 - Impacts of Irish energy policy - Moderator: Lisa Ryan, UCD Energy Institute and School of Economics

- **Kelly de Bruin (ESRI)** - The Economic and environmental impacts of COVID-19 for Ireland
- **Ivan Petrov (UCD)** - Paying more for less in energy efficient rental properties
- **Sarah Stanley (UCD)** - Assessment of Operational and Economic Impacts for a 70% Variable Renewables Power System

11:15 Break

11:30 Session 2: Climate change and solutions - Moderator: Muireann Lynch, ESRI

- **Kevin Forbes (ESRI Visiting Researcher)** – Are the Beliefs of the Climate Change Deniers, Skeptics, and Trivializers supported by the Hourly Temperature Data? Evidence from Alaska
- **Dana Kirchem (ESRI/UCD)** - Industrial demand response for RES-E integration: the case of wastewater treatment
- **Paul Cuffe (UCD)** - Financial instruments on the blockchain: their role in energy transactions

Matthew Collins, Assistant Secretary General (Energy) DCCAE

Matthew Collins is the Assistant Secretary General with responsibility for the Energy Division. Matthew is leading the Energy function at the Department.

Matthew joined the Department in 2016, having worked previously in the Departments of Health, Environment and Local Government, Foreign Affairs, Finance, as well as in the Communications Division of the Department.

Andrew Keane, Director of the Energy Institute at University College Dublin

Andrew Keane is Director of the Energy Institute at University College Dublin and Lead Investigator of the SFI Energy Systems Integration Partnership Programme, a research programme which brings together multiple disciplines to address research challenges facing the energy sector, in particular as we move towards decarbonisation.

Andrew's research interests include the impact of new energy resources on the power system from the residential network up to the high voltage transmission system. He is a Co-Founder of NovoGrid, a grid automation company delivering control solutions which enable renewable generators to increase their energy output. He is a Senior Member of the IEEE and past chair of the IEEE Power and Energy Society UK and Ireland Chapter. He has published over 100 peer reviewed publications, including over 50 papers in leading journals.

Professor Alan Barrett, Chief Executive Officer, Economic and Social Research Institute

Professor Alan Barrett is the Chief Executive Officer of the Economic and Social Research Institute. Professor Barrett received his Ph.D. in Economics from Michigan State University in 1994 and joined the ESRI that year. He was seconded to the Department of Finance from 2001 to 2003 and to Trinity College Dublin from 2011 to 2013. Most of his research has been in the areas of labour economics, population economics and macroeconomics. He is a Research Fellow with the Institute for Labour Economics (IZA) in Bonn, Germany, an Honorary Fellow of the Society of Actuaries in Ireland and a member (ex officio) of the Climate Change Advisory Council. He is also an Adjunct Professor at the Department of Economics, Trinity College Dublin.

He is a frequent contributor to radio and television discussions on economic matters and has been quoted in newspapers such as The New York Times, The Wall Street Journal and The Economist.

Session 1 - Impacts of Irish energy policy

Moderator: Lisa Ryan, Lecturer/Assistant Professor, School of Economics, UCD

Lisa is a lecturer in energy economics in the School of Economics. Her research is in clean energy technology adoption, energy markets, and climate change economics and related policy. She is an

active member of the UCD Energy Institute where she co-leads the interdisciplinary EMPowER project relating to the decarbonisation of electricity and consumer technologies in climate change mitigation policy. She was the senior energy economist in the Energy Efficiency Unit at the International Energy Agency (IEA) in Paris until summer 2013 where she led research projects relating to energy efficiency finance, transport, and cross-sectoral policy. She subsequently worked as an independent consultant in energy and environmental economics. From 2006-2009 she was the Director of Research at Comhar Sustainable Development Council and research fellow in the School of Geography, Planning and Environmental Policy, UCD. Lisa also previously worked as policy analyst in the R&D division of Volkswagen AG in Germany. Lisa completed a PhD in environmental economics from University College Dublin (UCD); she also holds a Masters in Economics and other postgraduate and undergraduate degrees in economics and chemical engineering from UCD and Colorado School of Mines, USA. She has published numerous journal articles and research reports in the areas of energy and climate change policy, economics, and energy efficiency. Lisa is currently a Board Member of the Sustainable Energy Authority of Ireland.

Kelly C De Bruin - Research Officer, ESRI

Kelly de Bruin is a climate change economist and joined the ESRI in 2017 as a research officer. Her work focusses on applied climate modelling and has made significant contributions the scientific literature of climate change economics. Her climate change research is in the area of Integrated Assessment modelling (IAM) and Computable General Equilibrium (CGE) modelling. Her expertise is in climate change impacts, adaptation modelling and policies, policy making under uncertainty, economic development and the environment, and mitigation coalitions.

Her policy orientated research has also assisted policymaking on climate change. In this regards she has been involved in numerous policy projects on the global scale in collaboration with the OECD, UNEP, UNDP, African Development Bank and Oxfam. Furthermore, she works closely with policy makers in Ireland, developing research to assist in addressing Irish climate policies.

Ivan Petrov, PhD Researcher, University College Dublin

Ivan Petrov is a PhD student working as part of the Markets & Strategic Planning (MSP) research strand of ESIPP under the supervision of Dr. Lisa Ryan. His research focuses primarily on market failures and energy efficiency. Ivan holds a Bachelor of Commerce (BComm) and Masters in Economic Science (MEconSc) degrees, both from University College Cork.

Sarah Stanley, PhD Researcher, University College Dublin

Sarah Stanley is a part-time PhD fellow in the Energy Institute, based in the School of Electronic and Electrical Engineering, University College Dublin. Sarah has a Master of Economic Science in Economic and Environmental Modelling from the National University of Ireland, Galway (NUIG) and a Bachelors Degree in Economics, Politics and Law from Dublin City University (DCU). Prior to starting her PhD, Sarah has worked as an analyst in the Sustainable Energy Authority of Ireland (SEAI) and as the lead modeller of the Irish 2050 Pathways Calculator as part of the Ireland 2050 project. Her work in the PhD will focus on power systems modelling and testing the viability of evolving electricity markets with a higher share of wind and other forms of renewable generation on the grid. She is funded by the Department of Communications, Climate Action and Environment under the EMPowER project.

Session 2: Climate change and solutions

Moderator: Muireann Lynch, Research Officer, ESRI

Muireann Lynch joined the ESRI as a postdoctoral research fellow in June 2014. She holds a BA in Economics and Mathematics from Trinity College, Dublin and a PhD from the department of Electrical Engineering in UCD. The title of her thesis was 'Sustainable low-risk generation in liberalised interconnected electricity markets'.

Her research interests include power system economics, interconnection, electricity markets, and regulation.

Kevin F. Forbes, Visiting Research, ESRI

Until recently, Kevin Forbes was an Associate Professor of Economics at The Catholic University of America in Washington, DC. He also recently completed a one-year stint as a visiting researcher at ESRI.

Dr. Forbes' research has largely focused on climate change issues using long memory time-series econometric methods.   One strand of this research addresses the linkages between the atmospheric concentration of CO_2 and hourly measures of temperature, wind speeds, and the *in situ* energy balance. Another strand examines the effects of wind energy and the EU emissions trading system on carbon emissions from electricity generation. The final strand focuses on resolving the operational challenges posed by the integration of wind and solar energies into the power grid by improving the accuracy of the forecasts.

Dana Kirchem, PhD Researcher, ESRI and UCD

Dana started as a PhD researcher within the work package MSP1: "Integrated, Electricity, Gas and Water Modelling" in September 2017. She holds both a BSc and MSc in Economics from the University of Muenster, where she focused on energy and environmental economics in her master's studies. She has previously worked as a research assistant at the Chair for Energy and Resource Economics of the University of Muenster. Within ESIPP, her research topics are the energy-water nexus in general and demand-side flexibilities from wastewater treatment plants in an integrated energy system in particular.

Paul Cuffe, Lecturer/Assistant Professor, School of Electrical and Electronic Engineering, UCD

Paul Cuffe received B.E. and Ph.D. degrees in Electrical Engineering from University College Dublin in 2009 and 2012, respectively. He is currently an assistant professor within the School of Electrical & Electronic Engineering, and is a member of the Energy Institute. His research interests are in the optimization, analysis and visualization of electrical energy systems.

Presentations

Following the event the presentations will be available online at:

https://energyinstitute.ucd.ie/ucd-esri-energy-policy-research-conference-thursday-24th-september/

https://www.esri.ie/events/webinar-ucd-esri-energy-policy-research-conference