

British Institute of
Energy Economics

OXFORD 2018

RESEARCH CONFERENCE

Consumers at the Heart of the Energy System?

18- 19 September 2018, Blavatnik School of Government, Oxford, OX2 6AD



BIEE 12th RESEARCH CONFERENCE
Consumers at the Heart of the Energy System?

Tuesday September 18th 2018	
09:45	Conference Registration Blavatnik School of Government, 120 Walton Street, Oxford, OX2 6AD
10.30	Welcome Prof Paul Ekins, Conference Chair
10:35	Opening Address Charles Hendry, Former Energy Minister, BIEE President
11.00	First Plenary Session: <i>Consumers at the Heart of the Energy System?</i> Chair: Victoria MacGregor, Director of Energy, Citizens Advice
11:00	Philip New, CEO, Energy Systems Catapult
11:20	Barbara Hammond, MBE, CEO, Low Carbon Hub
11:40	<i>'Accelerating the transition to a cleaner, more resilient, lower cost energy system for all'</i> Peter Bance, CEO, Origami Energy
12.05	Questions and Discussion
13.00	Lunch
13:40	Poster presentations: Student posters will be on display throughout the conference, the following will be available at their poster during this break: Do green electricity products meet consumers' preferences? – A comparative study of green electricity products in Germany, the UK, France and Italy (ongoing research), <i>Scott MacDonald</i> ; Transmission and Distribution Losses of Electricity: What do we Lose in Terms of Growth and Poverty Reduction? Evidence from Benin, <i>Arnaud Dakpogan</i> ; Assessing the Needs of Ireland's First Generation of Sustainable Energy Communities, <i>Anitha Sampath</i> .

14.00	First Parallel Session - Dialogue and Paper Sessions			
	Paper Session <i>Chair: Vivienne Geard</i> Distributional Aspects of UK Household Energy Consumption	Role of household activities in peak electricity demand and distributional effects of Time-of-Use tariffs. <i>Dr. Timur Yunusov, University of Reading</i>	UK Energy Expenditure Shares - A Long Term View. <i>Dr. David Deller, Centre for Competition Policy, University of East Anglia</i>	No one left behind – Consumer empowerment, protection and universal service in the low carbon transition <i>Dr Chris Harris, npower</i>
	Paper Session <i>Chair: Dr. Karoline Rogge</i> Demand Response: Barriers and Behaviours in Business and Small Consumers	Demand response as a common pool resource game: Nudges versus prices. <i>Ms. Penelope Buckley, Université Grenoble Alpes</i>	Swarm demand response: virtual storage by small consumers <i>Dr. Joachim Geske, Imperial College Business School</i>	Business participation in demand response: a review of potential barriers. <i>Dr. Catarina Araya Cardoso, Westminster Business School</i>
	Paper Session <i>Chair: Jim Watson</i> Energy Efficiency: Policy, Information and Rebound	Choosing energy efficiency – consumer response to operating costs at the point of sale. <i>Ms Fiona Brocklehurst, Ballarat Consulting</i>	Energy efficiency policy instruments in the residential sector: Implementing mechanisms for successful low-carbon transitions in households <i>Dr. Cristina Penasco, University of Cambridge</i>	Identifying the limits of the rebound effect. <i>Dr Tina Fawcett, University of Oxford</i>
	Paper Session <i>Chair: Jonathan Thurlwell</i> Distributed and Local Energy: Markets and Regulation	Unlocking Local Energy Markets <i>Ms Rachel Bray, University of Exeter</i>	Markets for distributed energy resources in electrical power systems: criteria, assessment, and analysis of latest initiatives in Australia. <i>Prof Frank Jotzo, The Australian National University</i>	Retail Electricity Markets in Transition: The Quest for Adequate Design. <i>Dr. Luis Boscan, University of Southern Denmark (SDU)</i>
	Dialogue Session	Do people matter? Can we get to a low carbon, secure and affordable system without their engagement ? Led by <i>Richard Hoggett, University of Exeter</i> . Including: <i>Rebecca Wallis, Independent; Catherine Mitchell, University of Exeter, Simon Roberts, Centre for Sustainable Energy</i>		
	Dialogue Session	Modelling Energy Demand and Societal Drivers: The Final Frontier? Led by <i>Prof. Neil Strachan, University College London</i> and <i>Dr Paul E Dodds, UCL Energy Institute</i> . Including: <i>Dr Stephen Hall, University of Leeds; Francis Li, UCL; Amy O'Mahoney, Ofgem; Matt Lipson, Energy Systems Catapult; Sophie Heald, Cambridge Econometrics.</i>		

15:30	Tea			
16:00-17.30	Second Parallel Session - Dialogue and Paper Sessions			
	<p>Paper Session <i>Chair: Prof. Matthew Leach</i> Decentralised Energy: the Role of Pro(Con)sumers in Energy Storage and Smart Grids</p>	<p>The role of consumers in the uptake of decentralised energy storage technologies. <i>Prof. Peter Taylor, University of Leeds</i></p>	<p>Integrating prosumers into the electricity grid: the interplay between technology and people. <i>Dr. Yael Parag, Interdisciplinary Center (IDC), Herzliya</i></p>	<p>Here comes the sun: The evolution of a Prosuming Project within a social housing estate. <i>Dr Nicolette Fox, SPRU, University of Sussex</i></p>
	<p>Paper Session <i>Chair: Dr Peter Connor</i> Solar PV: Take-up and Network Integration Issues</p>	<p>Modelling Take-Up of Residential Solar PV in the UK. <i>Mrs Sophie Heald, Cambridge Econometrics</i></p>	<p>Spatio-temporal analysis of PV diffusion patterns: an integrated neural networks and agent-based model. <i>Mr. Ali Alderete Peralta, Cranfield University</i></p>	<p>Prosumage of solar electricity: batteries, heating and mobility. <i>Dr Wolf-Peter Schill, DIW Berlin</i></p>
	<p>Paper Session <i>Chair: Prof. David Shipworth</i> Peer to Peer Trading: Prospects, Operation and Regulation</p>	<p>Attitudes, preferences and intentions to participate in peer-to-peer electricity trading: The case of Southwest German households. <i>Mr. André Hackbarth, Reutlingen University</i></p>	<p>From Airbnb to Solar: Toward a Transaction Cost Model of a Retail Electricity Distribution Platform. <i>Dr. Lynne Kiesling, Purdue University</i></p>	<p>Energy cooperatives: a missing piece of the peer-to-peer energy regulation puzzle? <i>Ms. Alexandra Schneiders, UCL Energy Institute, University College London</i></p>
	<p>Paper Session <i>Chair: Tony Diccio</i> Energy Efficiency: Finance, Investment and Performance</p>	<p>Leveraging private household investment in energy efficient retrofit: a systematic evidence review of the policy options. <i>Mr. Niall Kerr, University of Edinburgh</i></p>	<p>Further bridging the energy efficiency gap: heterogeneity, model error and time-consistency. <i>Dr. Daire McCoy, Grantham Research Institute, LSE</i></p>	
	<p>Paper Session <i>Chair: Smart Energy GB</i> Demand Response: Smart Meters, Dynamic Pricing and Consumer Engagement</p>	<p>Causal Tree Estimation of Heterogeneous Household Response to Time-Of-Use Electricity Pricing Schemes. <i>Eoghan O'Neill, University of Cambridge</i></p>	<p>Technological change and innovation in UK energy market - how might it be impacted by the price cap. <i>James Edgar, Which?</i></p>	<p>Motivating energy conservation in organisations: Smart metering and the emergence and diffusion of social norms. <i>Dr. Peter Bradley, University of the West of England</i></p>

	Dialogue Session	Mind the Gaps: How will a consumer-centric energy system affect organisational structures, sector skills and careers in energy? Led by <i>Peter Stewart, Interfax</i> . Including <i>Paul Appleby, BP</i> ; <i>Nick Ellins, Energy and Utility Skills Partnership</i> ; <i>Nicola McCheyne, Centrica Innovation</i> ; <i>Deane Somerville, Energy Institute</i> .
17:40	Student Pitch presentation session <i>Chair: Dr Peter Taylor</i>	<p>Incentivising households to reduce electricity consumption: A meta-analysis of the experimental evidence. <i>Penelope Buckley, Université Grenoble Alpes</i></p> <p>The Comfort Tool – Assessing perceived comfort improvements in four deep energy home renovations. <i>Ermal Kapedani, University of Hasselt</i></p> <p>Consumers as investors: proposal for an agent-based model simulating the uptake of energy-saving technologies by UK households. <i>Luciana Miu, Grantham Institute - Imperial College London</i></p> <p>The security of electricity supply to Switzerland – A demand-side analysis. <i>Alessandra Motz, Università della Svizzera italiana</i></p> <p>The implications of new sources of energy flexibility: A new consumer-focussed electricity system? <i>Mai Nguyen, The Open University</i></p> <p>Evaluating the impact of policy decisions on customer adoption of the renewable energy transition. <i>Kelvin Say, Curtin University</i></p>
18.30	Accommodation Registration Main Porters Lodge, St Anne’s College, 56 Woodstock Road, Oxford, OX2 6HS	
19.00	Conference Drinks and Dinner with After Dinner Speaker, St Anne’s College 56 Woodstock Road, Oxford, OX2 6HS	
	Volker Beckers, Chairman, Cornwall Insight <i>‘Imagination and Reality’</i>	

Wednesday September 19th 2018

Blavatnik School of Government, 120 Walton Street, Oxford, OX2 6GG

08:00	<p>Women in Energy Breakfast Session Prof. Catherine Mitchell, Professor of Energy Policy, University of Exeter Juliet Davenport, Founder and CEO, Good Energy Vivienne Geard, Deputy Director, Head Energy Efficiency & Heat Analysis, BEIS Barbara Vest, Director of Generation, Energy UK – <i>Moderator</i></p> <p>(open to all)</p>
08:00-08:30	<p>Conference Registration (Single Day Delegates)</p>
09:00	<p>Keynote Address: Basil Scarsella, CEO, UK Power Networks</p>
09:20	<p>Second Plenary Session: <i>New Technologies and Services</i> Chair: Mike Keoghan, Chief Economic Advisor, BEIS</p>
09:20	<p><i>'Reshaping Regulation: normalising the energy sector'</i> Dr. Jeff Hardy, Senior Research Fellow, Grantham Institute, Imperial College</p>
09:40	<p>Lawrence Orsini, Founder and CEO, LO3 Energy</p>
10:00	<p><i>'Financial Markets and the S-Curve- Electric Vehicles'</i> Kingsmill Bond, New Energy Strategist, Carbon Tracker Initiative</p>
10:15	<p>Angie Boakes, General Manager, eMobility, Shell</p>
10.30	<p>Questions and Discussion</p>
11.00	<p>Coffee</p>

11.30	Third Parallel Session - Dialogue and Paper Sessions			
	Paper Session <i>Chair: Dr Peter Taylor</i> Understanding Energy Demand in Households and Industry	Exploring socioeconomic and temporal characteristics of British and German residential energy demand. <i>Dr. Russell Mckenna, Karlsruhe Institute of Technology</i>	Diversity behind the meter - machine learning from household activities. <i>Dr. Phil Grunewald, University of Oxford, Environmental Change Institute</i>	Modelling fuel demand of heterogeneous industrial consumers. <i>Dr. Paolo Agnolucci, University College London</i>
	Paper Session <i>Chair: Dr Matthew Hannon</i> Business Models: Consumer Demand, Entrepreneurship and Community Energy	Community Energy: A New Democratised Energy System? <i>Dr Helen Roby, Coventry University</i>	Do consumers want the new business models we can offer? <i>Dr. Stephen Hall, University of Leeds</i>	Energy entrepreneurship business model innovation: insights from European emerging firms. <i>Mr. Michael Hamwi, ESTIA</i>
	Paper Session <i>Chair: Dr Nazmiye Ozkan</i> Energy Market Transformations and Challenges	The role of utilities in enabling prosumers and flexible distributed energy resources. <i>Dr. Daniel Quiggin, Chatham House</i>	Unlocking the benefits to end consumers. <i>Mr. Nicholas Rubin, ELEXON Ltd</i>	Continuity and Disruption in UK Energy System Change: Mapping Expert Differences – and Understanding their Implications. <i>Dr. Mark Winskel, University of Edinburgh</i>
	Paper Session <i>Chair: Lynsey Tinios</i> Heat Systems: Consumer Take-up and Experiences	The use of consumer data for optimizing smart grids for electricity and district heating. <i>Dr. Carl Dalhammar, Lund University</i>	Experimenting with Heat Plans to discover how to help businesses and governments harness energy services to build an energy system people will want to pay for. <i>Dr. Matthew Lipson, Energy Systems Catapult</i>	BEIS Heat Networks Consumer Survey. <i>Mr Philip Cole, BEIS</i>
	Dialogue Session	Consumers and Citizens: the Political Economy of Nuclear Power Led by Prof. <i>Gordon MacKerron, SPRU, University of Sussex</i>		
	Dialogue Session	Consumers, voters, residents or investors: who will be at the heart of future community energy organisations? Led by <i>Dr Tim Brauholtz-Speight, University of Manchester. Including: Dr Mary Gillie, Energy Local; Dr Emilia Melville, Carbon Co-op, Dr Jeff Hardy, Imperial College.</i>		

13.00	Lunch
13:40	<p>Poster presentations: Student posters will be on display throughout the conference, the following will be available at their poster during this break</p> <p>Political Economy Analysis: Inefficiency of the electricity distribution sector of West Africa, <i>Richard Oduro</i>; Scope of electricity retail supply and the implications for business model innovation on the demand-side, <i>Laura Brinker</i>; Investigating demand-side solutions to addressing barriers in energy transitions: Study of Urban household in India, <i>Anjali Ramakrishnan</i></p>
14.00	<p>Third Plenary Session: <i>Impacts and Implications of a Consumer-Driven Energy System</i></p> <p>Chair: Jonathan Thurlwell, Managing Principal IPA Advisory</p>
14:00	Dermot Nolan, CEO, OFGEM
14:20	Juliet Davenport, CEO, Good Energy
14:40	Jenny Saunders, former CEO, NEA
15:00	Prof Nick Eyre, ECI, University of Oxford and End Use Energy Demand Centre Champion
15.20	Questions and Discussion
15.45	BIEE AGM
16:00	Tea
16.15	Close