

The Sussex Energy Group Newsletter

January 2014

Foreword by Steve Sorrell and Florian Kern

Belatedly we wish everyone a Happy New Year and all the best for 2014. The past year has seen energy policy becoming increasing prominent within public debate, with energy prices on a rising trend and growing dispute over issues such as shale gas development. 2013 has also been very successful for SEG, with substantial fundraising successes, our expansion in size to 21 faculty members and 13 PhD students, and with major research outputs and policy engagement activities. We hope that 2014 will be equally successful. Our major phase of expansion is not yet complete with interviews for a research fellow to work on the new FP7 ARTS project to take place next week, the pending re-advertising of a Senior Re-

search Fellow for our new <u>Centre for Innovation and En-</u> <u>ergy Demand</u> and completion of the recruitment process for a new Professor of Energy Policy. As Bettina Zenz will soon go on maternity leave, this is a good moment to thank her for her tireless and effective work to make SEG run so smoothly over the last two years. We wish Bettina the best of luck with her new baby and hope to have her back as soon as possible. We are currently advertising for temporary maternity cover for Bettina's post.

Dr Steve Sorrell Dr Florian Kern Co-Directors of the Sussex Energy Group

New Appointments

SEG is delighted to announce the appointment of Sarah Schepers who has joined SEG as Manager of the Centre on Innovation and Energy Demand from January 2014. Sarah has an MBA from Henley Management College and 15 years of experience in communications, strategy and management in both the public and private sector. Sarah was previously Research Communications Manager for the School of Global Studies and has extensive experience in the energy and climate field from her previous work with the Carbon Neutral Company, Climate Strategies and The Centre for Low carbon Futures Sarah will take lead responsibility for project management, financial management and engagement for the new Centre, as well as contributing to the wider work of SEG.

Funding opportunities

The RCUK Energy Programme has issued a call for Expressions of Interest to work with the <u>End Use Ener-</u> <u>gy Demand (EUED) Research Centres</u>. Funding of £5 million is available and the proposed research should be on a topic relevant to one or more of the EUED Centres. The <u>deadline for EOIs</u> is 6th February 2014.

<u>Steve Sorrell</u>, who directs the <u>Centre on Innovation and</u> <u>Energy Demand (CIED)</u>, would be very interested to hear from researchers who interested in projects relevant to CIED's research programme. CIED focuses upon the *emergence*, *diffusion* and *impact* of lowenergy innovations and we are interested in interdisciplinary projects that expand this program both empirically and methodologically. If you have an idea that you would like to discuss, then please get in touch.

CIED website goes live

We are pleased to announce the launch of CIED's dedicated website which can be found at <u>www.cied.ac.uk</u>.

A detailed overview of the five year research centre can be found here, together with summaries of the individual projects, news, events and activities as well as profiles of the team.

Centre on Innovation and Energy Demand			
About	Research	Engagement Hub	Outputs
People	Get involved	Links	Contact us
Dehing new Transition to a Low Tenergy Cosmony Advances apple to encloring rankers measures require the single and underspread dipolyment all energy efficient technologies throughout all excluses of the economy. Supplies with the reacting changes in structures, institutions, and/or process and cubural means. The reas and excle of change required has fee instituted precedents and presents a major policy challenge. The Center on Instruction and Genergy Demond ICCCC controlses to this technicity precedents and presents of understanding of the <u>emergence</u> , <u>difference</u> and <u>encourses</u> or encourses the challenge by densities a socio technicito understanding of the <u>emergence</u> , <u>difference</u> and <u>encourses</u> to resolutions (e.g. cycling that are searched to improve nonzy efficiency addresses to g. c. exchanged and modes of behaviors (e.g. cycling that are searched to improve nonzy efficiency addresses to g. c. exchanged policy internationations.			es a There Arie Ander Ander Phil Ausderstaben mensus andrasie cal Constantion of Constantions Constantion Latent events 74 June 2014
Transport Studies Unit (7	etwean researchers from the <u>Bassex Energy</u> ((50) at the University of Oxford, and the <u>Baste</u> and is one of six <u>Research</u> , <u>Centrus</u> , on End U	nable Consumption Institute (SO) at the	The Busteinability and corporate aproat

PhD studentships in Innovation and Energy Demand

Three fully funded PhD studentships are now available in the <u>SEG</u>. Successful applicants will join the new £3.7 million <u>Centre on Innovation</u> and <u>Energy Demand</u> and will contribute to an interdisciplinary research programme on the **emergence**, **diffusion** and **impact** of low-energy innovations. <u>Full details on the studentships and how to apply</u>.

SEG launches new blog

SEG has set up a blog at <u>www.sussexnrggrp.wordpress.com</u> which provides an online space for researchers in the group to provide timely commentary on issues relating to their areas of interest and expertise. It will be used in conjunction with a more targeted and proactive social media strategy to help raise the profile of the work and expertise of SEG and individual researchers and connect with a community of interested audiences.

Florian Kern invited as guest professor at Technical University of Eindhoven

Florian Kern began 2014 with a two week spell as a guest professor at the <u>School of Innovation Sciences at the Technical University of Eindhoven</u> (Netherlands) on invitation by Dr Rob Raven. Florian, alongside Adrian Smith, has been working with Rob over the last three years on a <u>research project exploring the concept of 'protective space' in the context of transitions towards sustainability</u>.

The aim of the research stay is to jointly work on a conceptual paper summarising the insights derived from six empirical case studies and to advance a special issue based on the workshop on low carbon innovation politics we organised at Eindhoven University in November 2013 (see below).

Lucy Baker at Cape Town's Energy Research Centre as Visiting Fellow

Lucy Baker was in South Africa as a visiting fellow with the University of Cape Town's Energy Research Centre from September- December 2013 as part of her work on the <u>ESRC-funded 'Rising Powers</u> and the low-carbon transition in <u>Southern Africa</u>'.

While there she undertook novel field work to look at some recently constructed utility-scale wind and solar PV plants in the Northern and Eastern Cape, and carried out qualitative interviews with representatives from government, industry, banks and the unions. She also presented her work at a seminar & roundtable discussion 'Towards energy transitions in Southern Africa' organised by the Wits Business School and the Global Change & Sustainability Research Institute in Johannesburg on Tuesday November 19, 2013.

SEG presence at the low carbon innovation politics workshop, Eindhoven University

In November 2013, Adrian Smith and Florian Kern (SEG), together with Rob Raven and Bram Verhees (University of Eindhoven, TU/e) and Staffan Jacobsson (Chalmers University) organised a three day workshop on the politics of low carbon innovation.

Sixteen papers written by thirty-four researchers from ten countries were presented and discussed. The workshop concluded a joint <u>research project</u> (SPRU and TU/e) on the politics of low-carbon innovation. The aim was to bring together scholars from different disciplines interested in the concept of 'protected space' in relation to sustainability transitions. The workshop gave a platform to scholars who examined this idea from a variety of perspectives, including evolutionary, socio-technical, institutional, discursive and geographical ones. Information on the workshop is available <u>here</u>.



Adrian Smith presenting a formidable mind map summarising the results of the workshop.

New project launch: 'Low Carbon Innovation in China: Prospects, Politics and Practice'

January 2014 sees the launch of a new ESRC project 'Low carbon innovation in China - Prospects, Politics and Practice' to investigate different models of innovation and their role in low carbon transitions.

The international team involves partners from the UK - Lancaster University (PI John Urry, Co-I David Tyfield and Dennis Zuev), SPRU, University of Sussex (Co-I <u>Adrian Ely</u> and Research Fellow <u>Sam Geall</u>) and SOAS (Co-I <u>Frauke Urban</u>) and the STEPS Centre ICE Unit (<u>Julia Day</u>) - together with Chinese partners from Tsinghua University and the Centre for Chinese Agricultural Policy.

Running till May 2016, the project will compare government-led, high-tech and IPintensive 'indigenous innovation' approaches with more emergent, sometimes lowertech approaches in the areas of agriculture, energy and mobility. Further information is available on the <u>STEPS Centre</u> website.



Steve Sorrell co-edits a special edition on 'The Future of Oil Supply'

Steve Sorrell and Richard Miller (independent researcher) have co-edited a special edition of '*Philosophical Transactions of the Royal Society A*' on the <u>Future of Oil Supply</u>. The special edition examines the mechanisms, uncertainties, risks and possible consequences of declining production of 'conventional oil', together with the opportunities for mitigating those risks through enhanced oil recovery, non-conventional oils, biofuels and electric vehicles.

Together, the eleven papers provide a comprehensive and interdisciplinary perspective on the 'peak oil' debate, demonstrating its interlinked scientific, engineering and economic dimensions and reflecting a range of views. The aim is to stimulate wide debate on this contentious and critically important issue, both within the scientific community and beyond.

Steve co-authored the comprehensive <u>In-</u> <u>troduction</u> to the special edition, which is available free to non-subscribers, and is also the co-author of a <u>second paper</u> which examines the use of 'curve fitting techniques' to estimate recoverable resources. A video introduction to the special edition is also available <u>online</u>



Community innovation for sustainable energy: postcards from the grassroots

As part of the final phases of the Community Innovation for Sustainable Energy (CISE) project which involved SEG's Adrian Smith and Sabine Hielscher, a series of 10 postcards have been designed and distributed. Each postcard covers a different finding from the project, which ran over the last 3 years. An overview of the postcards is outlined in the image below.

Community Energy....

- 1 is critically important for sustainable energy tran
- is a diverse, growing, grassroots-led movement
 is about much more than just sustainable energy
- 4 thrives on local enthusiasm, but can't rely on goodwill alo
- is as much about soft skills as it is about hard technolog
- S is not yet being taken seriously enough by governmen
- is connected to community and sustainability networksbenefits from strong support networks and organisations
- Benefits from strong support networks and organisations
 reaches parts of society the private sector alone cannot reach
- 10 demands flexible and tailored policy support at all levels

Electronic versions of the postcards are available at: www.grassrootsinnovations.org.

SEG's Rose Cairns speaks on Radio 4

As part of the BBC Radio 4's 'Frontiers' programme on 11 December 2013, Gaia Vince interviewed natural and social scientists about geoengineering as a controversial approach to dealing with climate change. One of the interviewees was SEG's Rose Cairns, whose current research examines the social, geopolitical and ethical implications of the growing interest in technological manipulations of the climate and climatic processes as a response to climate change. Listen to the podcast.

SEG response to DECC consultation on nuclear waste disposal

Several members of SEG (Matt Gross, Phil Johnstone, Florian Kern, Gordon MacKerron, and Andy Stirling) have submitted a <u>written response</u> to the Department of Energy and Climate Change's (DECC) <u>consultation</u> on the siting process for a Geological Disposal Facility (GDF) for nuclear waste. This consultation follows Cumbria County Council's rejection earlier this year of hosting such a facility.

The government is therefore seeking an alternative location, and the issue remains multifaceted and controversial. Matt Gross and Phil Johnstone also represented SEG at the one day consultation on the issue run by DECC at Centre Hall, Westminster and involving round-table discussions with civil servants, nuclear regulators and local politicians.

SEG's visiting research fellow presents new paper on the SAIL project at the RER Tyndall conference

Christophe Rynikiewicz, Visiting Fellow at SEG, co-authored a paper with K. Jaouannet and A. Bonduelle on 'The <u>SAIL</u> project and hybrid sailing technology roadmaps: Investigating the determining factors of hybrid sailing reemergence in the transition to a low carbon economy' that was presented at the <u>Tyndall Radical Emission Reduction Conference</u> in December 2013.

The paper discusses the need for significant engagement, investment and low carbon innovation in the shipping sector to deliver radical GHG reductions, as well as the likely responses from incumbent fossil fuel technologies. This paper examines the conditions for a 're-transition' from steamships to (hybrid) sailing technologies, including advances such as fixed wings, kites, flettner rotors and turbo sails and also the use of biogas and electricity.

'The Energy of Nations' with Jeremy Leggett, December 2013

On 3 December, SEG held a public lecture by Jeremy Leggett on his new book, <u>The Energy of Nations</u>. Jeremy provided a fascinating presentation on the interlinked energy, environmental and financial risks facing the global economy, including oil depletion, climate change, the 'carbon asset bubble' and a potential 'shale gas surprise'. SEG's <u>Jim Watson</u> featured as discussant, and provided supportive comments, despite his greater scepticism on oil depletion.



SEG's Gordon MacKerron (left) and Jim Watson (right) with Jeremy Leggett

SEG was pleased to welcome a diverse audience to the event, which included students, academics, members of Transition Towns and community energy co-ops and many others. <u>Read more about SEG events</u>.

SEG at Warsaw COP19 side event, 22 November 2013

Rob Byrne presented at a side event for COP19 in Warsaw (22 November), co-organised with the Swiss Federal Institute of Technology (ETH Zurich).

The side event – Beyond Technology Transfer – was <u>covered by</u> <u>Earth Negotiations Bulletin on the</u> <u>Side</u>.

See slides from all the presentations in the side event (scroll to the bottom of the page).

New SEG approach towards Tyndall Centre for Climate Change Research

Research Fello9w <u>Phil Johnstone</u> will be taking over from <u>David</u> <u>Ockwell</u> in coordinating Sussex's role in the <u>Tyndall Centre</u>.

With growing initiatives on sustainability and climate change at Sussex, SEG aims to build new collaborative links with the Centre. Phil will be supported by two SEG doctoral students, Sandra Pointel and Claire Carter.

Funding from the School has been secured to help fund the annual Tyndall PhD conference and for SEG PhD students to attend.

Phil Johnstone and <u>Rob Byrne</u> have attended the Tyndall council meeting in January, to discuss current and future Tyndall activity and potential collaborations between the various Tyndall institutions.