



University of Sussex
The Sussex Energy Group

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Newsletter

July 2013

Foreword by Steve Sorrell and Florian Kern

These are exciting times for the Sussex Energy Group. Given recent success in obtaining research funding and support through the University, SEG is undergoing a significant expansion, with a total of ten new members of staff anticipated to join over the next few months which includes a new Professor of Energy Policy to lead the Group (see details below). Taken together, these appointments will greatly enhance the strength and capacity

of the Group, both in terms of teaching and research, leaving us better placed to respond to emerging funding opportunities as well as enabling us to significantly increase our impact among multiple stakeholder groups.

Dr Steve Sorrell

Dr Florian Kern

Co-Directors of the Sussex Energy Group

New Appointments

Philip Johnstone from the University of Exeter will be joining us in July to work on a new project on the [Governance of the Discontinuation of Socio-Technical Systems](#). This is a 3 year ERA funded project with Prof Andy Stirling as the SPRU PI. This project aims to help develop better understanding of how policy processes and wider industry and civil society strategies address deliberate abandonment of 'sociotechnical systems'. Research teams in the UK, Netherlands, France and Germany will focus on case studies concerning nuclear power, DDT, incandescent light bulbs and petrol automobile engines. The project will collect empirical data on termination processes in each case study area. It will analyse processes of coordination and conflict between different levels of policy making and so develop a typology of 'discontinuation pathways' and a framework to explore the main driving or obstructing factors. The result will aid deeper understanding of ways more effectively to make sociotechnical transitions.

SEG is delighted to announce the appointment of two new research fellows as part of the expansion in the context of the new Centre on Innovation and Energy Demand. Dr Lee Stapleton, currently based at the University of Brighton, is re-joining SEG to initially work on a project about estimating rebound effects in UK passenger and freight transport. We also welcome Dr Colin Nolden

who will join us after having completed a PhD in Renewable Energy at Exeter University. Colin will initially work on a project examining the diffusion of energy service contracting in the UK.

Bettina Zenz who is currently our SEG coordinator will move into the role of 'Engagement and Communications Officer' while continuing to provide administrative support for the Group and the new Centre. Congratulations to Bettina on this new role.

Interviews have also been held for the part-time lecturing post to contribute to our growing portfolio of postgraduate teaching in energy policy and sustainability. The preferred candidate has been made an offer which is currently under negotiation. We will be delighted to provide further news on this appointment in the next newsletter. In addition to these new appointments, the University has advertised for a new [Professor of Energy Policy](#) to lead the Sussex Energy Group and take our expanding work programme forward. The deadline for applications is 31 August 2013. Informal inquiries about this post can be made with [Florian Kern](#) or [Steve Sorrell](#).

We are also yet to recruit a Centre Manager, three research fellows, a senior research fellow and six doctoral students.

SEG research featured in Sussex 2013 Research Review

SEG's research has been featured in the University of Sussex' 2013 [Research Review](#) which according to the University 'showcases some of our most interesting research work'. In the written feature, Steve Sorrell talks about our work on rebound effects and Adrian Smith explains the work he leads on community energy initiatives.

In the accompanying [video clip](#), Adrian describes a range of current SEG research projects and Florian Kern talks about the policy engagement around SEG's recent work on carbon capture and storage technologies. The Review was launched in June at the Royal Society.

PhD researcher meets Secretary of State

[Jake Barnes](#), PhD researcher at SEG, met Secretary of State Ed Davey in early April after being invited by Bristol City Council to a small roundtable discussion on Bristol's energy future. Mr Davey was on a visit to the city to learn more about current activity and future plans, including lessons generated from recent Green Deal pilot schemes. Jake was invited to represent the local community energy sector. Whilst welcoming Mr Davey's support and enthusiasm for community engagement in the Green Deal, Jake emphasised the challenges and constraints these groups face.

Response to DECC's radioactive waste management call for evidence

SEG's Matt Gross and Markku Lehtonen have responded to the recent call for evidence from DECC on the review of the siting process for a geological disposal facility for radioactive waste. The [response](#) argues that an optimal site selection process would identify areas with favourable geological characteristics before inviting communities to volunteer. It also makes a case for the setting up of an independent body to provide its own analysis alongside the Nuclear Decommissioning Authority in order to increase confidence in the process both among experts and the wider public.

SEG researchers win best paper award at sustainability conference

The academic community which formed around the shared interests in sustainability transitions and institutionalised through the [Sustainability Transitions Research Networks](#) (STRN) held its 4th International Conference from 19th to the 21st of June in Zurich, Switzerland. SEG was represented by Cian O'Donovan, Caetano Penna and Florian Kern. Cian presented his analysis of the diffusion of wind energy in Ireland, and Caetano presented his case study of the response of the American car industry to climate change pressures. Florian chaired a special session on the interplay of interests, ideas and institutions in shaping sustainability transitions, together with a session on agency and power.

Collaborative work by Adrian Smith and Florian Kern on a comparison of offshore wind developments in the UK and the NL was presented by our Dutch collaborator Bram Verhees. The 'best paper' award at the conference was won by '[A Grassroots Sustainable Energy Niche? Reflections on community energy case studies](#)', a paper co-authored by three SEG researchers (Sabine Hielscher, Mari Martiskainen and Adrian Smith), alongside Gill Seyfang and Tom Hargreaves from the University of East Anglia. Caetano's paper on the slow reorientation of the American car industry was also one of the five shortlisted papers. The award and nomination demonstrate the significant contribution SEG is making to this network. Congratulations to all involved.

Collaboration with CQUT, China

[Dr Jenny Lieu](#), Associate Tutor at SEG, is currently a visiting researcher at the Low Carbon Energy Research Centre at Chongqing University of Technology (CQUT), China from May- July 2013. She is participating in CQUT's project "Total target allocation mechanism of renewable energy" funded by the National Natural Science Foundation of China. During the her visit, CQUT and SEG are conducting knowledge exchange workshops 1-2 times per week. The aim is to share different research methods and to introduce and discuss current research projects in both institutions. Based on these workshops, both institutions have identified potential areas for collaboration.

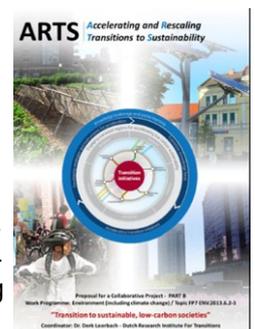
Low carbon workshop in Kenya

On 3 June, researchers at SEG ran an "Innovation Histories" workshop in Nairobi as part of the "Pro-poor, low carbon development" project. The workshop convened key stakeholders to share experiences of and develop policy recommendations from the relatively successful uptake of solar home systems in Kenya. For details, please contact [David Ockwell](#) or [Rob Byrne](#), or see the [project website](#).

SEG success in EU framework 7 call for research on 'transitions to sustainable, low carbon societies'

SEG was part of one of the three winning consortia under this FP7 call. Adrian Smith and Florian Kern were involved in a proposal led by the Dutch Research Institute for Transitions (DRIFT) which also involves the Stockholm Resilience Centre, VITO in Belgium, the Austrian Institute of Technology, the Leibniz Institute of Ecological Urban and Regional Development from Germany, ICLEI and several other partners.

The three year project (ARTS) will investigate the barriers to and opportunities for the coupling, rescaling and accelerating of bottom-up sustainability initiatives in European city-regions. SEG will be working on a local case study of activities in Brighton and Hove where the analysis will focus on innovative activities and actor-networks that are trying to fundamentally change energy, food, shelter and mobility provisioning patterns.



Presentations on RD&D and technology policy at UNFCCC in Bonn

Rob Byrne recently gave two presentations in Bonn. The first was on the role of technology policy in the UNFCCC's means of implementation; a presentation at a workshop for the ECN-led and CDKN-funded Climate Technology and Development Project in which Rob, Jim Watson and David Ockwell have participated. See the [Climate Strategies website](#) for further information.

The second presentation was on issues around RD&D of mitigation technologies, given for the thematic dialogue on RD&D during the UNFCCC Technology Executive Committee's sixth meeting. Rob's presentation drew on research for the ECN-led project mentioned above, as well as his DPhil, and another CDKN-funded project involving ATPS in Kenya and led by David Ockwell. Recordings of the sessions are available on the [UNFCCC website](#).

Recent publications

Byrne, R. (2013)

'Low Carbon Development in Tanzania: Lessons from its Solar Home System Market', in Urban, F. and J. Nordensvärd (eds.) *Low Carbon Development: Key Issues*, London and New York, Earthscan from Routledge: 240-255

Byrne, R. (2013)

Climate Technology and Development Case Study: Compact Fluorescent Lamps (CFLs), Cambridge, Climate Strategies

Byrne, R. and K. Vincent (2013)

"Opportunities for low-carbon development", in *African Development Report 2012: Towards Green Growth in Africa*, Tunis, African Development Bank: 80-109 (sections 5.4 to 5.10)

Cairns, R. (2013)

Examining framings of geo-engineering using Q methodology, *Climate Geoengineering Governance Working Paper 002*

Chitnis, M. S. Sorrell, A.

Druckman and T. Jackson (2011)
'Turning lights into flights: estimating direct and indirect rebound effects for UK households', *Energy Policy*, 55, 234-250

de Coninck, H. and R. Byrne (2013)

Low-carbon technology for the rising middle class, Cambridge, Climate Strategies

Hargreaves, T., S. Hielscher, G. Seyfang and A. Smith (2013)

Grassroots innovations in community energy: the role of inter-

mediaries in niche development, *Global Environmental Change*, in press

Hielscher, S., G. Seyfang and A. Smith (2013)

'Grassroots innovation for sustainable energy: exploring niche development processes among community energy initiatives', in: *Sustainable Lifestyles in a New Economy: Ecological Macroeconomics, Socio-technical Transitions and Social Practice*, Edward Elgar, 133-158,

McGlade, C. J. Speirs and S. Sorrell (2013)

Methods of estimating shale gas resources - comparison, evaluation and implications, *Energy*, accepted for publication

McGlade, C. J. Speirs and S. Sorrell (2013)

Unconventional gas: a review of regional and global resource estimates, *Energy*, 55, 571-584

Miller, R. and S. Sorrell, S. (2012)

'The future of oil', *Philosophical Transactions of the Royal Society A: Mathematical Physical and Engineering Sciences*, accepted for publication

Ockwell, D. (2013)

'Technology transfer for Green Growth in Africa', in *African Development Report 2012: Towards Green Growth in Africa*, Tunis, African Development Bank:

Ockwell, D. and A. Mallett (2013)

'Low carbon innovation and tech-

nology transfer', in Urban, F. And Nordensvard, J. (Eds.) *Low carbon development: key issues*, Routledge, Abingdon.

Smith, A. and J. Murphy (2013)

Understanding transition-periphery dynamics: renewable energy in the Highlands and Islands of Scotland, *Environment and Planning A*, 45, 691 – 709

Smith, A., F. Kern, R. Raven and B. Verhees (2013)

Spaces for sustainable innovation: solar photovoltaic electricity in the UK, *Technological Forecasting and Social Change*, in press

Sorrell, S. and J. Speirs (2012)

'Using growth curves to forecast resource recovery: Approaches, analytics and consistency tests', *Philosophical Transactions of the Royal Society A: Mathematical Physical and Engineering Sciences*, accepted for publication

Verhees, B., R. Raven, F.

Veraart, A. Smith, F. Kern (2013)
The development of solar PV in the Netherlands: a case of survival in unfriendly contexts, *Renewable and Sustainable Energy Reviews*, 19, 275-289

Watson, J., F. Kern, N.

Markusson (2013)
Resolving or managing uncertainties for carbon capture and storage: lessons from historical analogues, *Technological Forecasting and Social Change*, in press