

Sustainability First Annual Report 2012

Foreword from the Chairman

2012 was a productive year for Sustainability First. Work continued on the now well-established three-year project '**GB Electricity Demand Project- *realising the resource***', encompassing both research outputs and influence on policy.

Through its work, Sustainability First continued to contribute to the policy debate on energy efficiency and the electricity demand side.

Separately, Northern PowerGrid and British Gas on their Customer-Led Network Revolution project (a Low Carbon Network Fund project), Judith Ward and Gill Owen provided ad hoc expert input. Additionally in late 2012, a review paper produced, focussing on 'Lessons Learned from Trial Recruitment in the CLNR project'. Judith Ward, Gill Owen and Rebekah Phillips, one of Sustainability First's Associates, worked on this review.

In October 2012 Judith Ward became part-time Sustainability First Director, taking on the day-to-day management and coordination of Sustainability First, while continuing to lead on the GB Electricity Demand project.

Sustainability First also welcomed three new trustees in 2012: Sara Bell, Derek Lickorish MBE and Richard Adams OBE.

Ted Cante CBE (Chairman)

Sustainability First Annual Report 2012

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1. About Sustainability First

Sustainability First is a small environmental think-tank set up to develop new approaches to sustainability. It develops implementable ideas in a number of key policy areas – notably, energy, water and waste - where it can make a difference. It undertakes research; publishes policy and discussion papers; organises high level seminars and other events. Its primary focus is on policy and solutions within the UK, but draws on experiences and initiatives both within and outside the UK.

It is a registered charity with independent trustees – www.sustainabilityfirst.org.uk.

Sustainability First’s trustees are: Ted Cantle (Chair); Phil Barton (Secretary); Trevor Pugh (Treasurer); John Hobson; Derek Osborn; David Sigsworth, Sara Bell, Derek Lickorish, Richard Adams. Its projects are developed by the staff, trustees and a number of associates and consultants.

Sustainability First’s associates are: Gill Owen, Sharon Darcy, Rebekah Phillips. Judith Ward is Sustainability First’s part-time Director; Maria Pooley is Sustainability First’s research officer.

Since 2006, Sustainability First has undertaken a series of major multi-sponsor studies on GB household smart energy meters that develop and disseminate knowledge and insight in the fields of energy efficiency, smart metering, smart energy tariffs and demand response¹.

Currently Sustainability First’s main project is the **GB Electricity Demand** project, which began in April 2011. It was supported in its first year under the Northern Powergrid (formerly CE Electric) Low Carbon Network Fund project - and thereafter for a further two years to April 2014 via a multi-sponsor group.

¹ Sustainability First published smart meter papers are available on the website – www.sustainabilityfirst.org.uk

2. Sustainability First - People

Trustees

Ted Cantle CBE (Chair) Professor and Chair of the iCoCo Foundation, which promotes interculturalism and community cohesion. He chaired the Independent review of the riots in northern towns in 2001, responsible for the ‘Cantle Report’ and the founding of the community cohesion programme. He was formerly the Deputy Chairman of the Environment Agency, Chief Executive of Nottingham City Council and Chair of the DTI Construction Task Force for local government. Ted was appointed CBE in 2004 and is a Deputy Lieutenant of Nottinghamshire.

Phil Barton is the Chief Executive of Keep Britain Tidy, the charity which campaigns for a cleaner, greener England and which runs a range of environmental programmes including EcoSchools, Green Flag Awards for greenspaces and Blue Flag beaches. Keep Britain Tidy has recently merged with Waste Watch and launched a new national local pride campaign: Love Where You Live. He formerly worked on regeneration skills for the NWDA, for Defra on rural voluntary sector policy and for Groundwork UK.

John Hobson is an independent policy adviser working on construction, education and sustainability. Previously he was Construction Director in the Department of Trade and Industry.

Derek Osborn CB is a senior environmentalist advising on long-term strategic issues for governments, international bodies, business and the voluntary sector. He is also president of the Stakeholder Forum for Our Common Future, and a member of other Boards in the private and voluntary sectors.

Trevor Pugh Trevor is Strategic Director, Environment and Infrastructure directorate, Surrey County Council, and has held senior positions in a number of London boroughs. Trevor is an environmental scientist and has championed sustainability in construction and across the range of local authority services.

David Sigsworth is Chairman of Sigma Capital Group plc (property and urban regeneration specialist), Chairman of Flexitricity, and Chairman of Sea Energy plc (thought leader in the off-shore wind industry). He is Vice President of the Combined Heat and Power Association, Chairman of the Scottish Environment Protection Agency and Chair of the Scottish Fuel Poverty Forum, which advises the Scottish Government.

David is an Honorary Professor at the University of Dundee, involved in MSc courses covering sustainable energy and environmental modelling.

Sara Bell is managing director at Alectrona Grid Services, currently designing a trading platform that aggregates value across the whole electricity value chain and shares the value appropriately between distribution, transmission, generation and supply in order to drastically reduce the cost of the move to a low carbon economy by enabling the financing of electricity storage and flexible demand. The platform enables electricity retailers to closely match retail sales with wholesale purchases,

substantially reducing the need for supplier imbalance hedging.

Previously Sara was responsible for developing UK Power Networks' commercial strategy for future distribution network management and operation. This included delivering significant savings in traditional electricity network investment and substantial regulatory outperformance through developing commercial alternatives to network reinforcement, such as Demand Side Management.

Richard Adams OBE is a founder of several successful UK social enterprises that allow people to express ethical values through their work, spending or saving. The majority have been focussed on fair trade, the problems of social exclusion, fuel poverty, international development and sustainability. He has also founded a corporate social responsibility research group and the UK's first ethical supermarket chain. He has degrees in sociology, theology and business and has a number of honorary doctorates and visiting fellowships from British universities.

He is currently President of the EU's Economic and Social Committee's Permanent Study Group on a European Energy Community.

Derek Lickorish MBE has had an extensive career over some 43 years in the energy business. He is currently Chair of the UK Government's Fuel Poverty Advisory Group, a Non Executive Director of The Green Deal Finance Company Ltd and Secure Meters SHPL Pte. He is a member of the Government's Department of Energy and Climate Change Smart Meter Customer Advisory Panel, Ofgem's Sustainable Development Advisory Group and RWENpower Customer Stakeholder Council.

Prior to his focusing on smart metering, fuel poverty and energy strategy, Derek was employed by EDF Energy as their Chief Operating Officer, Customers Branch, for 5 years and was previously the Customer Service and External Affairs Director at SWEB from 1996. He started his career as a trainee at Seeboard in 1970.

Sustainability First Director

Judith Ward became part-time Director of SF in 2012, after several years of working as an SF Associate. **Judith Ward** is an energy policy professional with long-standing practical experience of both the utility and consumer worlds. Over the past six years, Judith has published extensively on policies for GB household smart meters, smart tariffs and demand response with Sustainability First. Her long-term career was with National Grid (1990-2004), where her last role was a six-year period as Group Head of Public Affairs. In her early career, Judith worked in policy roles with the House of Commons Environment Select Committee and the national Electricity Consumers' Council. Judith has a master's degree in Energy Resources Management. She was part-time adviser to the UK Business Council for Sustainable Energy from 2005-2012, an Associate of the Institute for European Environment Policy (and formerly a Trustee), and an Honorary Fellow of the Energy Policy Group at the University of Exeter. Judith is a member of the DECC / Ofgem Smart Grids Forum.

Sustainability First Associates

Dr Gill Owen has undertaken extensive research and published widely on energy efficiency, smart meters, distributed energy and demand side response.

She is now based in Australia where she is a part-time senior researcher at Monash University and is providing advice to the Australian Energy Markets Commission and Australian Energy Regulator. She continues as a part-time Senior Research Associate at the Energy Institute at University College London.

Until her departure from the UK in August 2012 she was Vice Chair of the Government's Fuel Poverty Advisory Group, a Non-Executive Director of the water regulator Ofwat and Chair of the REAL Consumer Assurance Scheme for microgeneration. She was a Commissioner of the UK's Competition Commission for ten years until 2002 and has also been a non-executive board member of the energy regulator, Ofgem. She has continued a close involvement with Ofgem as a member of Ofgem's Social Action Strategy Review Group and Consumer Challenge Group. She was also a member of DECC's Smart Meters Consumer Advisory Group (and was also a member of this group when it was run by Ofgem).

Sharon Darcy joined Sustainability First as an associate in 2012. Sharon's background is in the consumer movement and regulated industries. She is currently a Board member of Consumer Focus, housing association The Hyde Group and a Trustee of pensions scheme Nest (where she has a particular interest in responsible investment). She is a member of Ofgem's Low Carbon Network Fund Expert Panel and Consumer Challenge Group. She is also a member of the Ofwat Customer Advisory Panel and Future Regulation Advisory Panel. Sharon was recently nominated as a member of the Parliamentary Committee on Standards. Sharon started her career at the National Audit Office where she worked in the Privatisation and Regulation Department before moving to Consumers International and then Which? Previous roles include Member of the Council of Energywatch, Chair of Sutton Borough Citizens Advice Bureau and member of the London and Southern Committee for the Consumer Council for Water.

Rebekah Phillips is a freelance environmental researcher, project manager and advocate. On a national level she specialises in the intersect between behaviour change and energy policy and research. On a local level she manages projects that enable and encourage sustainable living. Recent research projects have focused on how to drive demand for energy savings through the smart meter roll out and Green Deal.

Rebekah has worked with Sustainability First exploring the lessons learned from the Customer Led Network Revolution Trial on the electricity grid. Other recent and current projects include working with Groundwork UK on a programme to explore the benefits of working with communities to deliver energy efficiency; with Mission:Explore on encouraging school children to conserve water and with Behaviour Change on national communications on energy efficiency. Rebekah is also an Associate with environmental think-tank Green Alliance.

Previously Rebekah was a Senior Policy Adviser at Green Alliance in charge of their Green living theme which she set up and developed. She also worked as the Environment and Transport Analyst for BBC News, and for Elsevier Science in Amsterdam.

Sustainability First Research Officer

Maria Pooley joined Sustainability First in July 2011, working full-time as Research Officer on the GB Electricity Demand project. Maria is an energy policy professional with a track record of delivering policy research, analysis and advice. Previously she worked at the energy and environment consultancy Ricardo-AEA for five years, where she specialised in delivering climate change policy advice for clients including local authorities, regional development agencies, DECC, Defra and EU bodies.

She has a first degree in Natural Sciences from Cambridge and a masters in Environmental Technology, Energy Policy from Imperial College.

3. 'GB Electricity Demand – *realising the resource*'

This is a three-year project (2011-2014) focussing on the potential resource which the electricity demand side could offer into the GB electricity market, through both demand response and demand reduction.

Key themes for the project include:

- Customer Response and Consumer Issues.
- Commercial and Regulatory Issues.
- Public Policy Issues.

The project was supported in its first year under the Northern Powergrid Low Carbon Network Fund project - and thereafter for a further two years to April 2014 via a multi-sponsor group.

Sponsors include : BEAMA ; Vodafone (previously Cable & Wireless); Consumer Focus; British Gas ; EDF Energy; Elexon; E-Meter Strategic Consulting (a Siemens business); E.ON UK ; National Grid ; Northern Powergrid ; Ofgem ; Scottish Power Energy Networks ; UK Power Networks.

Work is coordinated through a **Smart Demand Forum**, whose participants include the sponsors together with DECC and key consumer bodies: Energy Intensive Users Group, Consumer Focus, Which?, and National Energy Action.

The project is:

- Evaluating and understanding the potential GB electricity demand-side resource across all economic sectors (including the role of distributed and micro-generation) ;
- Developing a clearer understanding of the economic value of this resource to different market actors and to different customers over the next 10-15 years ;
- Evaluating the key customer, consumer, commercial, regulatory and policy issues and interactions.

The project is developing a substantive knowledge-base, and provides visibility and thought-leadership for GB electricity demand-side issues. The project is undertaking work relevant to:

- GB smart meter deployment.
- Low Carbon Network Fund projects – emerging lessons and insights from the LCNF projects will be fed into the project
- Proposals for the electricity demand-side (DSR & electricity demand reduction) in Electricity Market Reform.

The work programme is being delivered through the Smart Demand Forum, through wider stakeholder events, and through twelve published papers.

Additional expertise and inputs are provided by Serena Hesmondhalgh of Brattle Group who has developed a quantitative all-sector electricity end-use demand model. Stephen Andrews is supporting the project on Distributed Generation and Micro-Generation.

The project also draws upon relevant information from demand side developments in other countries (notably the EU, US and Australia) to inform its work.

Papers published by the project to date are:

	Project papers – www.sustainabilityfirst.org.uk
1	GB Electricity Demand – context and 2010 baseline data
2	GB Electricity Demand 2010 and 2025 – Initial Brattle Demand-Side Model : scope for demand reduction and flexible response .
3	What demand-side services could customers offer? Household customers. Industry customers.
4	What demand-side services can provide value to the electricity sector?
5	The electricity demand-side & wider energy policy developments
6	What demand-side services does Distributed Generation bring to the electricity system?
7	Evolution of commercial arrangements for more active customer & consumer involvement in the electricity demand-side.
8	Electricity demand and household consumer Issues (July 2013)

The remaining four papers under Year 3 of the project will be as follows:

9	GB Electricity Demand 2010 and 2025. Which electricity demand-side measures might offer most ‘bang for your buck’?. This paper will revisit and expand the electricity demand-side model developed by The Brattle Group for the project’s Paper 2.
10	Where does the electricity demand-side fit into the community energy picture?
11	How might innovation and connected-customers and consumers transform the electricity demand-side in the longer term?
12	Bringing it all together: how can the electricity demand-side play in the electricity market?

Policy context: the 2012 Energy Bill

Published on 29th November 2012, the main focus of the Energy Bill is the electricity supply side market, introducing new incentives to promote investment in capital-intensive low-carbon power generation technologies (nuclear, renewables).

The main points of demand-side interest for the project and Sustainability First are as follows:

- (1) the capacity market - and proposed treatment of demand-side response and;
- (2) the electricity demand reduction work programme and consultation.

With regards to the capacity market, further consultation is planned next year, to which Sustainability First will input findings from relevant project papers.

Regarding Electricity Demand Reduction, Sustainability First has highlighted the importance of targeting peak demand reduction, since reducing demand at peak will deliver proportionately greater system savings than off-peak demand reduction (cost reductions include reduction in transmission, distribution and generation costs).

4. Customer Led Network Revolution (CLNR) Low Carbon Network Fund (LCNF) project

The Low Carbon Network Fund projects are trialling a range of existing and new network technologies tied into the customer-side, to accelerate de-carbonisation. Northern Powergrid (formerly CE Electric) is leading the CLNR project and other partners include Centrica (British Gas). Sustainability First's Gill Owen and Judith Ward provide "expert challenge" assistance to the Northern Powergrid LCNF North East England project, Customer-Led Network Revolution, assisting with devising behavioural trials and assistance with knowledge sharing/dissemination.

Customer Lead Network Revolution – 'Lessons Learned on Trial Recruitment'

Additionally, Sustainability First has completed a review of lessons learned for the Customer Led Network Revolution project, in particular by British Gas, about the reality of recruiting customers willing to participate in this major trial via smart meters and low-carbon technologies (15,000-plus households and SMEs).

The project sets out the successes and challenges of the set-up phase of recruiting customers to this ambitious customer-facing project. The overall project involves technical and commercial assessments of installing and operating low-carbon technologies (including smart meters, smart appliances, PV, heat pumps and electric vehicles) in customers' homes.

Sustainability First's Judith Ward, Gill Owen and Rebekah Phillips, have worked on this review. We anticipate publication in 2013.

5. 'Water Consumers – today and tomorrow'

In late 2012, Sustainability First started work on a paper focussing on issues in the water industry: 'Water consumers – today and tomorrow'. Work is being lead by Sustainability First Associate Sharon Darcy.

This paper addresses the question of whether the UK has the right policy and regulatory processes in place to align the economic, environmental and quality interests of current and future water consumers. A framework for balancing the affordability, security and sustainability interests of consumers will be developed for discussion.

This project is currently underway and we anticipate publication in late 2013.

6. Dissemination of research

In 2012, Sustainability First was invited to present at a variety of conferences and other workshops, on the GB Electricity Demand project. Sustainability First colleagues also participated in a variety of panel discussions and debates on the electricity demand side, electricity and energy efficiency, and related consumer issues.

A number of the presentations given are available at <http://www.sustainabilityfirst.org.uk/publications.htm>

7. Summary of Sustainability First's 2012 Annual Accounts

Sustainability First Statement of financial activities (incorporating the income and expenditure account) for the year ended 31 December 2012

2011 £		2012 £
	Incoming resources	
91800	Sponsorship fees	218166
3210	Tax refund	-
-	Consultancy	9600
69	Bank interest	673
<u>95079</u>	Total incoming resources	<u>228439</u>
	Resources expended	
44721	Consultancy fees	82403
350	Depreciation	350
-	Hospitality	287
535	Insurance	651
142	IT consultancy	336
388	Legal & professional	807
3000	Office accommodation	7417
847	Office equipment & sundries	183
-	Payroll fees	113
-	Printing & photocopying	72
14893	Research & administration	-
135	Telephone	657
3310	Travel, meetings & conference costs	2896
-	Wages, NI & pension	35498
<u>68321</u>	Total resources expended	<u>131670</u>
26758	Net income/(expenditure)	96769
33506	Total funds brought forward	<u>60264</u>
<u>60264</u>	Total funds carried forward	<u>157033</u>

All the activities of the charitable company are classed as continuing.

Sustainability First is a registered charity and a company
Registered charity number 1078994, company number 3897720

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