

## Previously published papers by or with Sustainability First of relevance to the development of the demand-side for domestic customers

Our papers include work in the following areas:

- **Future tariffs:** possible outcomes on half-hourly settlement & cost-reflection, principles of 'fairness', retailer responses including cherry-picking, mandation, approaches to price comparisons etc. <sup>1</sup>
- **Customer safeguards and protections:** unexpected bills (CLNR trial), 'lock-in' to kit sales (e.g connected home), multi-utility models, pre-pay, debt calibration etc. <sup>2</sup>
- **Community & local flexibility schemes:** group approaches to supply, supply licence requirements, etc. <sup>3</sup>

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<sup>1</sup> See Sustainability First - Discussion Paper by Jon Bird. '**Smarter, Fairer ? Cost-reflectivity and socialisation of costs in domestic electricity prices**'. 14 March 2016.

[http://www.sustainabilityfirst.org.uk/images/publications/other/Sustainability\\_First\\_-\\_Discussion\\_Paper\\_by\\_Jon\\_Bird\\_-\\_Smarter\\_fairer\\_Cost-reflectivity\\_and\\_socialisation\\_in\\_domestic\\_electricity\\_prices\\_-\\_FINAL.pdf](http://www.sustainabilityfirst.org.uk/images/publications/other/Sustainability_First_-_Discussion_Paper_by_Jon_Bird_-_Smarter_fairer_Cost-reflectivity_and_socialisation_in_domestic_electricity_prices_-_FINAL.pdf)

<sup>2</sup> Sustainability First. Papers from our project '**GB Electricity Demand – realising the resource**'. 2011-14  
<http://www.sustainabilityfirst.org.uk/index.php/gb-elec-demand-publications>

**Paper 12** - Household Electricity Demand-Side Participation in the GB Electricity Markets. July 2014.

**Paper 8** - Electricity demand and household consumer issues. July 2013

**Paper 3** - What demand side services could customers offer - Household Demand. April 2012.

See also:

**Developing the smarter grid: the role of domestic and small and medium sized enterprise customers**  
CLNR L246. 31 March 2015.

<http://www.networkrevolution.co.uk/project-library/developing-the-smarter-grid-the-role-of-domestic-and-small-and-medium-sized-enterprise-customers/#sthash.xN1oT1yS.dpuf>

**'The Smart Electricity Consumer : realising the electricity demand-side resource'**.

Sustainability First Lecture. Energy Futures Lab. Imperial College. 17 June 2016.

<http://www.sustainabilityfirst.org.uk/images/publications/presentations/Sustainability%20First%20-%20Smart%20Electricity%20Consumer%20-%20Energy%20Futures%20Lab%20-%20Imperial%20-%202017%20June%202015%20-%20FINAL.pdf> - and

European Commission. Smart Grid Task Force EG3. Workshop on experiences and conditions for successful deployment of Demand Response and Self Consumption. Brussels 2 March 2016.

Presentation by Judith Ward. Director. Sustainability First. '**Household DSR & Flexibility in GB**'.

<https://ec.europa.eu/energy/sites/ener/files/documents/Agenda%2C%20participants%20and%20conclusions%20SGTF-EG3%2002%20March%202016%20Final.pdf>

<sup>3</sup> Sustainability First. Papers from our project '**GB Electricity Demand – realising the resource**'. 2011-14  
<http://www.sustainabilityfirst.org.uk/index.php/gb-elec-demand-publications>

- **Smart appliances:** requirements (if any), standardisation, avoiding proprietary set-up and lock-in etc. <sup>4</sup>
- **Privacy:** developments on customer consents on their data, DAPF review etc. <sup>5</sup>
- **Cyber security:** smart meters, CADs, IoT etc – what is ‘acceptable’ customer or system risk?
- **Export metering:** PV, storage etc – DNO & regulatory expectations, future requirements etc
- **Trials:** what to address via trials? eg what knowledge gaps? which institutional & regulatory barriers? what customer outcomes to test? near-commercialisation (or not)? etc. <sup>6</sup>
- **Customers in vulnerable circumstances:** whether and how demand-side flexibility might serve such customers well. <sup>7</sup>

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**Paper 10** - The Electricity Demand-Side and Local Energy : how does the electricity system treat 'local' ?. *January 2014*. Plus - Slides from SmartGrid GB Workshop – London. *March 2014*.

<http://www.sustainabilityfirst.org.uk/images/publications/gbelec/Sustainability%20First%20-%20GB%20Electricity%20Demand%20Project%20-%20Paper%2010%20Slides%20-%20How%20Does%20the%20Electricity%20System%20Treat%20Local.pdf>

<sup>4</sup> Sustainability First. ‘**GB Electricity Demand – realising the resource**’. 2011-14  
<http://www.sustainabilityfirst.org.uk/index.php/gb-elec-demand-publications>

**Paper 11** - How could electricity demand-side innovation serve customers in the longer term?  
 Frontier Economics & Sustainability First. *April 2014*

<sup>5</sup> **Smart Meter Data & Public Interest Issues.** A ‘research challenge’ launched by TEDDINET, the Centre for Sustainable Energy and Sustainability First. *March 2016*.

<http://www.sustainabilityfirst.org.uk/index.php/other-publications>

[Paper 1 – National Focus. Simon Elam. University College, London](#)

[Technical Annex](#)

[Paper 2 – Sub-National Focus. Jess Britton. University of Exeter](#)

<sup>6</sup> **‘Future potential for DSR in GB’.** A report prepared for DECC by Frontier Economics with support from Sustainability First. *October 2015*

- and -

**Innovate UK / Tempus Project** – The Global Electricity Revolution for Consumers. Interim Paper  
 Sustainability First. *June 2016*

[http://www.sustainabilityfirst.org.uk/images/publications/other/Sustainability\\_First\\_-\\_IUK-Tempus\\_project\\_interim\\_paper\\_June\\_2016.pdf](http://www.sustainabilityfirst.org.uk/images/publications/other/Sustainability_First_-_IUK-Tempus_project_interim_paper_June_2016.pdf)

<sup>7</sup> **Assessment of DNOs action on consumer vulnerability** - a report prepared for Ofgem by Frontier Economics with Sustainability First. *January 2016*

[https://www.ofgem.gov.uk/system/files/docs/2016/01/final\\_frontier\\_report\\_231215\\_1.pdf](https://www.ofgem.gov.uk/system/files/docs/2016/01/final_frontier_report_231215_1.pdf)

- and -

**Sustainability First. Project ‘Inspire’.** *Innovation and consumer vulnerability: improving service for energy customers in vulnerable circumstances.* Started - October 2016.

<http://www.sustainabilityfirst.org.uk/index.php/inspire>