Sustainability first

centre for sustainable energy

Smart Meter Energy Data: Public Interest Advisory Group

A policy dialogue and work programme
led by
Centre for Sustainable Energy & Sustainability First

Initial Meeting – 30 November 2017

Stimulus paper

1. Public Interest Advisory Group: aims and objectives

The Centre for Sustainable Energy (CSE) and Sustainability First are convening and running a Public Interest Advisory Group (PIAG) to explore public interest issues associated with smart energy data. The PIAG work programme is collaborating with, and part-funded by, the major new EPSRC-funded Smart Meter Research Portal (SMRP) research project led by UCL.

The over-arching aim of the PIAG is to bring together a range of relevant 'public interest' stakeholders to hold an informed and structured policy dialogue to explore how household smart meter energy data could be:

- put to appropriate use to better serve GB policy development and energy system transition

- accessed for purposes of public policy by government and other organisations able to demonstrate a strong public interest remit.

The PIAG's work programme has been informed by (a) two papers commissioned by CSE & SF in 2015 on household smart meter data and the public interest agenda from a national and a sub-national perspective[1] and (b) an initial stakeholder roundtable in March 2016 exploring the issues raised by these papers and the controls which have been put in place to control availability and access to smart meter data to protect consumer privacy.

Specifically, the PIAG will :

- **Provide an independently-convened public interest view-point and platform** to inform stakeholder thinking and, more specifically, the SMRP programme on:
  - The needs of key public interest stakeholders
  - Making data useful for different public interest users and needs (e.g. representative profiling etc)
  - Alternative methods of data access
  - Public interest priorities for SMRP data analysis and research.
  - How the SMRP data-set may sit alongside other large public data sets (eg English Housing Survey).

- **Consider how public interest concerns are reflected in the current and evolving alternative routes for third party access**, for example BEIS's review of their Data Access and Privacy Framework and the implementation of the EU General Data Protection

1 CSE, Teddinet, Sustainability First. Two discussion papers published March 2016 (downloadable here) :
'Smart Meter Data and Public Interest Issues – the national perspective'. Paper & technical annex by Simon Elam, University College, London.
'Smart Meter Data and Public Interest Issues – the sub-national perspective'. Paper by Jess Britton. University of Exeter.

Regulation (GDPR).[2] In particular the PIAG will consider questions relating to the proportionality of the protections governing third-party access to meter data where a wider public interest goal may be served**.** A key question will be whether public interest uses of smart meter data are appropriately balanced against data privacy considerations – especially for non-live / historic meter data.

- **Develop deeper understanding and ensure a high-quality debate on public interest benefits associated with smart meter energy data among key stakeholders.** The aim will be to raise awareness of the benefits of smart meter data in terms of the public interest agenda. This will help ensure that the public interest can be well-served by the data which smart meters will capture and that there is a broad understanding among public interest stakeholders of the options for access to this data while respecting privacy concerns.

- **Develop and agree some high-level principles** by which to test appropriate public interest uses of smart meter data. These would be initially for use within the SMRP project, but also for wider use in other research settings, policy-making and regulatory thinking and practice. PIAG will not operate as a decision-making body in terms of assessing whether particular proposals meet those criteria but could potentially advise on suitable governance arrangements.

2. PIAG work programme themes

Through the PIAG, CSE and Sustainability First will bring together key actors in a structured non-technical work programme over an eighteen-month period (November 2017 – May 2019).

We envisage that, to deliver the outcomes set out above, the PIAG work programme will explore three major themes:

1. **Interests of different public interest actors and stakeholders in smart meter energy data:** understand / define needs of different public interest actors (e.g. local authorities, charitable organisations, non-academic research interests, government, the devolved administrations, regional economic bodies, certain new market participants, regulatory bodies). We will:
    - catalogue the public interest goals which different public interest actors wish to serve which require smart meter data
    - consider what data they may wish or need to access to serve these goals, including what kind of data-handling and analytics may be required (e.g. to establish potential value in smart meter data for regional and sub-regional geographies)

2 Directly binding regulation from 25 May 2018.

- understand, from a public interest view-point, what these actors would regard as research priorities for the SMRP academic research programme and wider academic and publicly funded research and analytical activities.

2. **Data properties and the public interest:** consider how different properties of smart meter data could impact the public interest value of that data. We will explore how far desired data properties might raise or address privacy concerns (both real and perceived). For example:
    - historic vs real time (do the same privacy concerns apply to data a year old but which could still have significant research and policy-making value?)
    - gas vs electricity data [are privacy concerns the same for gas (i.e. heat and cooking) as they are for electricity (i.e. the gadgets we're using)]?
    - levels of locational and socio-demographic detail available with smart meter data records and suitable levels of aggregation to protect anonymity [and how to maintain opportunities to link individual household energy data with other key household data (e.g. health or socio-demographic) prior to anonymization (a common practice in health research)]
    - linking different data properties with how they might serve different public interests and whether these could influence how privacy concerns are addressed.

3. **Data access and the public interest:** consider where / how far current smart meter data access arrangements and future proposals (and associated market and regulatory developments) are likely to serve wider public interest benefits - and where not. This will include exploring:

    - The extent to which current and planned data access and associated market and regulatory arrangements will lead to existing or new market actors meeting the public interest goals (as identified through this work programme) in the normal course of their business (or whether they might run counter to such interests)
    - what might be the barriers to enabling public interest goals to be met routinely from such arrangements and how those barriers might be addressed (if they can be)
    - which public interest goals are likely to require public policy interventions (because, for example, they are unlikely to be 'good business' in any likely market or regulatory arrangements).

3. Wider project context

Smart meter roll-out

The main smart meter roll-out began in late 2016, running through to end-2020. As at the end of June 2017 there were 6.66 million domestic meters operated in smart mode by large suppliers in GB. The absolute and understandable priority of government, energy companies

and the consumer bodies is to achieve a successful roll-out. This includes strong customer confidence on suitable safeguards on data access and privacy.

Any discussion arising from PIAG on access to smart meter data to realise potential wider public interest benefits therefore takes place amid this critical backdrop.[3] We therefore anticipate that PIAG would run as a well-informed 'backroom conversation': open, but not actively promoted or attention-seeking.

Smart Meter Research Portal

The PIAG work programme will run alongside early-stage development of the smart meter data research portal by UCL and their partners. It will be an integral work package of the project, but led and convened at arms-length by CSE and Sustainability First.

The SMRP project is intended to provide the UK research community with a shared portal to more readily access smart meter data and to establish a research programme using this data, including supporting government policy development. Research will be facilitated by linking smart meter data to other data sources, including data held securely within the UK Data Archive. The initial aim is a database covering around 10,000 households, with customers explicitly consenting to use of their smart meter data for this purpose.

Oversight and governance of the SMRP project itself will be under-taken by a separate independent SMRP advisory group, likely to be chaired by BEIS.

Data Access and Privacy Framework

The PIAG's discussions and emerging thinking will be fed into the BEIS Data Access and Privacy Review, starting in late 2017 with a consultation expected in early summer 2018. PIAG will also feed into thinking with regard to the public interest aspects for smart meter data of the EU General Data Protection Regulation, directly binding from May 2018.

Government and big data

This project has a very particular focus on the public policy potential of smart meter energy data. More generally, the project also sits within the realm of wider government thinking on reform of their current approaches to 'big data'.[4] We will therefore wish to contribute specific thinking about smart meter data to the development of new thinking for ONS.

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3 Also relevant is the legislation (the Digital Economy Act 2017) which potentially allows linking of government-held data (e.g on income, receipt of benefits) with consumption data held by energy suppliers, to help better target measures for the fuel poor. There will be an overarching legal safeguard on energy suppliers in receipt of this public-data. If they use this information for any purpose other than the provision of assistance to citizens living in fuel poverty, they could face criminal sanctions.

4 As a result of the Bean Review, ONS approaches to official data-collection are being modernised. The government announced 'a new hub for data science and a centre for excellence in economic measurement – designed to maximise the public value of existing and new data sets – so called "big data" from public and

4. PIAG – Modus Operandi

CSE and Sustainability First will set up and convene the PIAG for an initial eighteen-month period from November 2017, part-funded by the UCL-led SMRP project, but designed and managed on an arms-length basis.

PIAG will bring together ~20 key actors/stakeholders to develop a common understanding around the three themes set out in section 2, in order to deliver the project outcomes outlined in section 1: informing and influencing public interest aspects of the development of the SMRP; supporting BEIS in its review of the Data Access & Privacy Framework; building wider awareness among stakeholders of the public interest benefits of smart metering, and; establishing public interest principles for use of smart meter data.

Advisory group members will be drawn from organisations with a focus on smart meter data and the development of public policy. A list of participants will be available at the meeting. Meetings will take place under Chatham House rules to enable the frankest possible discussion of the issues and a confidence between participants.

We will convene four PIAG meetings as follows (co-ordinating with the wider SMRP project where there are common stakeholders):

1. **Initial Meeting** – **Nov 2017** – to recap on the previous analysis by CSE/Sustainability First and on the current options for data access under the smart metering programme; to establish a shared understanding of the issues for the PIAG work programme; and develop and agree work programme priorities.

2. **Workshop 1** – **Feb/March 2018** – scoping discussion on future principles for 'public interest' use of smart meter data; exploration of the three themes.

3. **Workshop 2** – **Oct/Nov 2018** – discussion on emerging headlines & possible proposals to feed into final report, SMRP gateway review, DAPF review, etc.

4. **Meeting on final report** – **March 2019**.

Workshop materials will be high-level overview slide-decks and/or short working notes prepared by CSE & Sustainability First as stimuli for discussion by the PIAG. These will draw on published material from government, academia and other relevant groups (eg Smart Meter Implementation Programme documents, outputs from the BEIS / Ofgem Smart Systems Forum, etc) and on bilateral discussions with PIAG members and other parties as appropriate.

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private sources – using cutting-edge techniques to allow the Office for National Statistics to produce more innovative, accurate and timely statistics – and develop world-leading analytical and digital capabilities in economic measurement and future-proof the production of the UK's economic statistics'.

These materials, together with conclusions from the workshops, will be pulled together into a short final overview paper for publication in late Spring 2019.

Annex: Background on Centre for Sustainable Energy and Sustainability First

CSE and Sustainability First are both charities with a strong focus on GB energy demand-side policy and practice, plus an astute grasp of the policy environment. In combination, we possess the breadth and skills to orchestrate and take forward a substantive policy dialogue about smart meter energy data and the public interest agenda. We are strong on the consumer, smart meter and public interest angles, as well as having demonstrable technical and quantitative strength from analysis of large energy consumption data-sets and related data. Each organisation therefore brings the capability to shape the work programme, and to provide challenge, independence, experience and rigour to the work of the advisory group.

CSE – www.cse.org.uk – has a strong and practical record in the GB energy and public policy arena, as well as a high capability in energy data analytics. This includes 'big data' analytics on the EDRP dataset, the development of consumer archetypes for Ofgem and exploration of potential distributional impacts of time-of-use tariffs. CSE developed and convenes the Bristol Smart Energy City Collaboration which is examining and addressing the practical opportunities and challenges of using smart energy data to meet sustainable energy and wider public interest objectives at city-scale. It has also been working with the GLA on the development of its smart energy programme for London. CSE also provides policy advice to both BEIS and Ofgem, including providing 'consumer challenge' input to RIIO price controls.

Sustainability First – www.sustainabilityfirst.org.uk – has a long-standing policy interest in smart meters, the energy demand-side and in consumer policy. SF also has a strong record of setting up multi-party projects to examine and unpack complex areas of energy policy and in successfully identifying practical next-steps (GB Electricity Demand Project, New-Pin project, Power Responsive support). Current SF projects relevant to PIAG development include: *Project Inspire* - looking at how innovation can better serve vulnerable energy consumers; *New-Pin* - New Energy and Water Public Interest Network - a major three-year multi-partner project set up and run by Sustainability First, focused on 'public interest outcomes' for the energy and water sectors.

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