

Smart Meter Energy Data: Public Interest Advisory Group (PIAG)

Workshop 1 19 March 2018

Welcome, Introductions & PIAG Housekeeping

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Agenda – Workshop 1

- Housekeeping
- Colleague updates
- PIAG process - strawman
- Clarifying what smart meter data could add to the public interest
 - What does PIAG mean by the public interest
 - Developing initial ‘use-cases’ – early thoughts and stakeholder perspectives
- On what basis can smart meter data currently be accessed and by whom ?
 - ICO Privacy Rules, GDPR & DAPF
 - Insights from :
 - International comparisons
 - Treatment of data ethics in other sectors
- Future workshop topics & forward work programme

Colleague Updates

- BEIS
- Ofgem
- Citizen's Advice
- DNO
- Elexon
- UCL SMRP

PIAG Modus Operandi - reminder

- 18 month project to March 2019
 - PIAG membership - represents broad range of public interest views
 - So far as timetables allow, in parallel with DAPF review & Ofgem settlement reform
- Bi-laterals
- Customer research. Avoid duplication. Possibly focus groups.
- Communications – consciously ‘low key’

PIAG process – our strawman

- **What can smart meter data add to the wider public interest?**
 - What does PIAG mean by the ‘public interest’
 - Applications & use-cases (March →July 2018)
 - Data characteristics & attributes (March →July 2018)
- **Who can access smart meter data and on what basis?** (March → July 2018)
 - Privacy rules – ICO, GDPR, DAPF
 - International examples
 - Data ethics – other sectors
- **Potential future routes for accessing smart meter data for public interest purposes**
(November 2018)
 - Likely process & costs
 - SMRP consortium
 - DNO
 - DCC
 - Other?
- **What capabilities are needed to make use of meter data for public interest purposes ?**
(November 2018 – March 2019)
- **Final PIAG Report & Principles** – will pull together across these four themes. (March 2019).

Clarifying what smart meter data could add to the public interest

Framing 'public interest' questions on access to smart meter data

Judith Ward
Sustainability First

Why enable access to smart meter data for a 'public interest' purpose ?

- BEIS Smart Meter CBA (Nov 2016) & earlier IA (2014) : mostly silent on potential for wider 'public interest' benefits from smart meter data
- A main 'public interest' purpose of access to smart meter data is **to improve upon the current evidence-base for energy-use - & so support better public policy-making & delivery.**
- A better evidence-base should **serve wider societal goals** - by enabling improvements in **research, analysis, prediction, evaluation & targeting of public policy.**

What does a 'public interest' purpose look like? * 1

National-level

- **Improved models → better forecasting & prediction**

BEIS / ONS - Energy Consumption in the UK, DUKES ; Ofgem – State of the Markets Report ;
National Grid – Future Energy Scenarios etc

- Better inputs to **whole-system** thinking (investment, operational)
- Better grasp of **distributional impacts** of policy
- Better targeted policy, measures & evaluation – e.g. for different population segments (elderly, vulnerable, fuel-poor), for low-carbon

* Analysis in 2016 for SF/CSE/Teddinet - by UCL & University of Exeter - identified a number of 'public interest' benefits from smart data.

What does a 'public interest' purpose look like? * - 2

Regional / local

- Market actors & others - better targeted investment for smart grid, demand-side, smart energy, *plus* clearer view of local/community needs
- Regional authorities, cities, communities – better evidence by which to plan & develop energy-related infrastructure and low-carbon measures (EVs; heat; homes; local energy schemes).
- Better evidence by which to target services for different population segments - elderly, vulnerable, fuel-poor
- Better-informed partnerships & collaborations – with local authorities, social landlords, health agencies, community bodies

* Analysis in 2016 for SF/CSE/Teddinet - by UCL & University of Exeter - identified a number of 'public interest' benefits from smart data.

How to balance judgements on whether ‘public interest’ purposes may warrant access to smart meter data ? – 1

Current legal frameworks – offer limited guidance on how to set about *judging the balance* between (1) individual customer protections, and (2) any potential wider public interest benefits from accessing smart meter data (see later slides & Maxine’s paper).

- **Data Protection Act & GDPR** – each allow access to data for ‘research, history and statistics’ (DPA 1998, section 33. GDPR 2017, article 89). But, a main focus to protect and anonymise individual data.
- **FOI 2000 Pt II – ICO Public Interest ‘Test’**. Guidance on balancing a decision on whether a particular FoI disclosure may / may not be in the public interest. Case-specific.
- **DAPF 2012** – Drafted around protections for individual customer . Explicit individual customer ‘opt-in’ for access to more granular data.

How to balance judgements on whether ‘public interest’ purposes may warrant access to smart meter data ? – 2

- **Freedom of Information Act 2000 Part II: ICO guidance on a ‘Public Interest Test’** – when responding to an FoI request :

‘The public interest can cover a wide range of values and principles relating to the public good, or what is in the best interests of society. Thus, for example, there is a public interest in transparency and accountability, to promote public understanding and to safeguard democratic processes. There is a public interest in good decision-making by public bodies, in upholding standards of integrity, in ensuring justice and fair treatment for all, in securing the best use of public resources and in ensuring fair commercial competition in a mixed economy. This is not a complete list; the public interest can take many forms’.

(for ‘qualified’ exemptions. Public Interest Test Guidance. ICO July 2016 v 2.1 para 9)

For PIAG, our start-point is a ‘process’ – rather than a public interest definition

- A simple ‘public interest’ definition may have rather limited value at this point as an overall guide for accessing smart meter data.
- But a *process** that seeks (1) to understand the public interest on access to smart meter data, and, through this, (2) to balance different and legitimate interests – could be helpful (SF New-Pin project).
- In the year ahead, our proposed PIAG Process aims to build a systematic picture & a better understanding of :
 - Key ‘public interest’ topics on access to smart meter data
 - Any significant areas of agreement / disagreement
 - What a **‘good’ and balanced outcome** might look like – in taking account of individual protections while also serving wider public interest goals

*Earlier slide

Are these the ‘right’ public interest questions to frame PIAG’s work ?

- How to get a better view of **customer-thinking on trade-offs** between privacy, data access and the public interest (consumer research – PIAG, others)?
- What are the **main ‘public interest’ purposes** for accessing smart meter data?
- Can some purposes for data-access be ruled ‘out-of-scope’ in public interest terms (e.g if to improve individual targeting / commercial offers)?
- **Which actors** are most likely to seek access to smart meter data **for a public interest purpose (and chiefly for what purpose)?**
- What are the **most likely routes** open to those actors to seek access to customer smart meter data (e.g. DCC, SMRP etc)?
- Under present rules, **how far can these actors already fairly readily access smart meter data** – and whether **at reasonable cost?**
- Whether **key public interest purposes** are at risk of **remaining unserved** without additional steps in support of data-access ?
- **Potential risk to the customer** (individual, collectively) – should current thinking on data-access arrangements evolve for ‘public interest’ reasons?

Clarifying what smart meter data could add to the public interest

Developing initial 'use-cases' – early thoughts

Nicky Hodges

Centre for Sustainable Energy

Amongst potential public interest users, early indications are of:

- Limited appreciation of existing rules and arrangements regarding smart meter data privacy and access
- Desire for minimum burden means to access smart meter data for a variety of potential uses
- Variation in understanding of what intended outcomes are or aren't achievable from proposed uses of smart meter (including with other uses)
- Limited strategic preparedness for enabling use of bulk smart meter data

Initial 'Use Cases' – next steps

- Further round of interviews with potential users re potential use cases and the data-related requirements
- Critical thinking - if/how proposed uses of smart meter data can be applied to achieve public interest outcomes
- Output: refined set of use cases, identifying the balance in data requirements, privacy and opportunities for public interest benefit.

On what basis can smart meter data currently be accessed and by whom ?

ICO Privacy Rules, GDPR & DAPF

Maxine Frerk
Sustainability First

Recap – Privacy rules

- Data Protection Act / GDPR:
 - Data is “personal” if can be linked to an individual
 - Personal data can only be processed with consent or if other conditions are met (eg legal obligation)
 - Data that is suitably anonymised or aggregated so individuals can no longer be identified – no restrictions on use
- GDPR (May 2018)
 - Consent must be explicit (opt in) – right to access data - pseudonymisation
- Data Access and Privacy Framework
 - Clarifies rights / restrictions for supplier / network access
 - Enshrines principle of third party access (SEC rules re consents etc)

ICO Guidance on anonymisation - 1

- *“If we assess the risks properly and deploy it in the right circumstances, anonymisation can allow us to make information derived from personal data available in a form that is rich and usable, whilst protecting individual data subjects”*

ICO Guidance on anonymisation - 2

- DPA / GDPR does not apply if data cannot be re-identified back to an individual
- Risk based assessment:
 - Motivated intruder test
 - Pseudonymisation v aggregation
 - Publication v limited disclosure
 - How sensitive is the data
- Consent not strictly needed to create anonymised data but need to reflect on any commitments given when data given

Privacy rules - discussion

- How do we handle the issue of consent?

Arguably not needed for anonymisation (if data has been collected for another purpose?) – but people agreed to have smart meters installed on a certain set basis.

- How best to engage with privacy advocates / ICO?
- Any expertise within the group on privacy enhancing technologies?

On what basis can smart meter data currently be accessed and by whom ?

Insights from international examples

Maxine Frerk
Sustainability First

International Examples - Overview

- US history on 3rd party access – Green Button
- Now leading the way in providing anonymised / aggregated data for public interest:
 - Publication of high level aggregated data
 - Services to provide half-hourly data on area basis
 - Rules for de-identification eg 15/15
 - Driven by regulators and supported by consumer groups
 - Dependent on utilities having database to draw on
- Europe moving to more centralised databases for switching / settlement – less focus on 3rd parties

International Examples – US summary

State / company	Granularity	Anonymised / aggregated	Rule for De-identification	
Illinois - ComEd	½ hourly	anonymised	15/15%	Paid for service
California – PG&E	monthly	aggregated	100/15% (zipcode)	Published
California – PG&E	monthly	aggregated anonymised	15/20% 100/10%	Available to govt inc local
Ontario	½ hourly	tbc	tbc	Service
Pecan Street sample	Minute by minute	anonymised		1000 customers

International Examples – Discussion

- Could public interest benefits be delivered without a central data repository of some sort? Any other technical options?
- Could we envisage moving to having a central data repository of some sort?
 - Public commitment ‘that there won’t be a central database’
 - Issues being explored e.g. on half-hourly settlement
 - DNO role?
- What else would people like to understand about the US case studies?

On what basis can smart meter data currently be accessed and by whom ?

Treatment of data ethics in other sectors

Maxine Frerk
Sustainability First

Other sectors - overview

- Other sectors (e.g. health) have found ways to make data available while protecting privacy:
 - Use of trusted third parties to link data
 - But lessons from care.data on e.g. transparency
- Challenges increasing with big data / AI (e.g. ability to re-identify)
- Leading to growing focus on “data ethics” (principles) and governance rather than rules
- Principles of fairness, transparency and accountability

Other sectors - ADRN example

- Administrative Data Research Network (ADRN)
- Facility to access de-personalised administrative data and link to other data
- Available to researchers – broadly defined (but trained)
- Public consultation on founding principles
- Although not personal data still treated as sensitive to protect integrity of process
- Framework (cf “5 safes”):
 - Safe projects
 - Safe people
 - Safe data (and outputs)
 - Secure environments

Other sectors - discussion

- What are the key learnings from these examples from other sectors?
- How does the growth of big data / AI affect the sensitivity of smart meter data?
- Which elements of the principles / frameworks discussed here would be most relevant for a database like the SMRP?
- Should we be arguing for greater governance of data outside ‘the walled garden’ (or is that beyond the project remit)?

Future Workshop Topics & Forward Programme – 1

Workshop 2 – July 2018 Feed into DAPF review & Ofgem thinking on half-hourly settlement reform

- Use cases
- Data attributes – anonymisation & aggregation
- What privacy concerns (if any) flow from the use-cases to inform scoping consumer research?
- Is there a public interest ‘driver’ for national-level data capture and possible curation?
- What might this mean for the DAPF and approaches to customer consents?

Future Workshop Topics & Forward Programme – 2

Workshop 3 – November 2018

- Consumer Research
- Privacy vs public interest ‘balance’ – what does this mean for consents ?
- Draft ‘Public Interest’ Principles - & their application
- Possible access routes to smart meter data for public interest purposes
- What capability might be needed to make use of meter data for public interest purposes

Future Workshop Topics & Forward Programme – 3

Workshop 4 – March 2019

- **Finalise PIAG Principles** – to address what principles might need to be put in place to access smart meter data for public interest purposes for:
 - (1) UCL Smart Meter Research Portal (national) and
 - (2) possible access more widely (sub-national)
- **PIAG Report** – facilitating access to smart meter data for public interest purposes.

May cover issues such as : SMRP – public interest access approaches & rules ; possible support for public interest actors to access data; possible approaches to capacity building and / or curation; CAD pairing in the public interest – privileged access ?

AoB & Close

Smart Meter Energy Data: Public Interest Advisory Group (PIAG)

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