



Making a positive difference
for energy consumers

nationaldatastrategy@culture.gov.uk

Email: dataservicessupport@ofgem.gov.uk

Date: 12/7/2019

Summary

- We suspect that the data principles learned by the Energy Data Taskforce (EDTF), such as energy system data is “presumed open”, may also contribute to improving government data best practice for parts of the economy other than our national energy system. We encourage testing the suitability of this in other regulatory contexts and more widely as other government departments work relating to data
- Ofgem would be better enabled to perform its duties if government were to mature data best practice guidance and support. An equivalent example of our need is how government digital work is supported centrally by the Government Digital Service; such as through its service manual, digital delivery assurance services and skills / role definition information.
- We are experiencing growth in our need for Digital, Data and Technology subject matter specialists as well as in cyber-related professions. This is exposing government recruitment to new markets for skills and so is evolving our training and recruitment challenge. As our skills needs are becoming more targeted, we recommend assuring government’s employee value proposition is robust and resilient to continued change in these fields and, we expect, equivalently for other specialisms.
- We would like to draw attention to our witnessing a growth in digital monopolies as the energy market digitises, these are in addition to the better understood physical monopolies that are a feature of the GB energy market. We anticipate that this is a common trend across markets, driven by global digital transformation. We consider the development of digital markets and digital monopolies to be of national importance.
- We believe the ongoing digital transformation of the energy sector and its regulator is potentially a valuable use case to prove and test government’s wider data strategy. We gladly offer our support.

About Ofgem

1. Ofgem is a non-ministerial government department and an independent National Regulatory Authority, recognised by EU Directives. Our principal objective when carrying out our functions is to protect the interests of existing and future electricity and gas consumers.

We do this in a variety of ways including:

- promoting value for money;
- promoting security of supply and sustainability, for present and future generations of consumers, domestic and industrial users;
- the supervision and development of markets and competition; and
- regulation and the delivery of government schemes.

2. We work effectively with, but are independent of, government, the energy industry and other stakeholders within a legal framework determined by the UK government and the European Union.

Our response

3. Our response focuses on the questions where we feel we can add the most value. We will be pleased to provide further information if asked.

Question 2.2. How does effective participation and data use differ by location and demographic group across the UK? What does this look like in urban areas, rural areas and more remote parts of the country?

Question 2.3. How does effective participation and data use differ by sector?

Question 2.4. What barriers to participation do different groups face? How are marginalised and vulnerable groups affected?

5. Participation in the digital environment is not homogeneous. We adopt a range of regulatory approaches to address the range of digital and data needs energy consumers face. This work does not directly tackle factors such as urban/rural dichotomies, rather it seeks to facilitate market-based services for consumers or to learn if and when services driven by regulatory intervention are appropriate, such as instances where interventional services can lead to better outcomes for energy consumers, including vulnerable consumers.

6. Our midata in energy project work is an example of how we are developing and testing solutions that can address energy consumers' ranging needs. The project is looking at how the midata solution can support use cases that empower energy consumers to make more informed choices about their energy use and realise more value from their energy usage data in standardised and integrated way.

7. For instance, there is currently no standardised, integrated method for consumers to share their energy data with third parties. Third parties currently gather the data from a range of sources and formats, and so risks to be inaccurate.

8. Midata aims to streamline the tariff comparison process for consumers by removing their need to find and enter their energy usage information, as is currently required, for price comparison websites (PCWs) or competitor suppliers to provide a tariff quotation. By easily, quickly and securely sharing this data via midata, consumers can benefit from a more seamless tariff comparison process, and a more accurate comparison based on their actual usage, with the third party providing them with more insightful recommendations.

9. Sharing their energy usage data with third parties via midata can also help consumers analyse their energy consumption, as third parties could analyse the consumers' energy profile and highlight areas for potential savings.

10. Where consumers are not engaged with digital opportunities we are learning that digital and data services can still be used to offer them services. An example of this is through the trials we have conducted for disengaged customers. The trials work shows a significant number of consumers, including those who are vulnerable, who are more risk averse and reluctant to engage in the energy market due to perceived and actual barriers. These include their inability to access and assess information about their energy usage and available energy tariffs; the idea that they might be charged by both suppliers during the switch period; and their concerns about their ability to pay for their energy usage. Successfully trialled interventions, such as Collective Switch (CS), which is designed to support and empower such consumers in engaging in the market are being

investigated for inclusion into the number of use cases that midata may support to address the different needs of energy consumers.

11. Our approach to delivering midata is based on a consumer centric principle, ensuring that the solution meets the needs of consumers and third parties; that it is designed and tested to be as clear, intuitive, and easy as possible; and that the design incorporates learning from other industries where consumer data is used, such as banking and telecoms.

12. The range of consumers' and industry users' needs is a growing modern challenge associated with delivering effective services. We expect many issues relating to consumers, including vulnerable consumers strongly overlap across sectors and will benefit from a coordinated approach.

Question 3.1. Are there specific challenges that small and medium businesses or non-profit organisations face? How do these vary among different types of organisations?

Question 3.2. How and to what extent are small and medium businesses dependent on big businesses' data and data infrastructure?

13. Our understanding is that marketplace complexity results in small and medium businesses in the energy sector facing barriers to understanding what data is available to them, whether it is available publicly or through data sharing agreements, its data quality and its context (metadata), particularly with respect to commonly used assets, like our national energy system.

14. The energy sector includes a growing number of digital and data natural monopolies that comprise Great Britain's energy market "digital national energy system" and associated wider infrastructure. These new and growing digital monopolies play a key role affecting wide reaching actors operating in the market.

15. To support better consumer outcomes through innovation of new products and services, it is imperative that innovators' needs from our digital (and physical) national infrastructure are met. This enables them to develop new supply chains on top of the foundations created by our commonly used national infrastructure. Innovators are often small and medium enterprises and it is common for national infrastructure to be managed by big business, this creates an important dependency, which if not managed effectively will lead to the growth of monopolies, beyond their natural size and will stifle opportunities for innovation of products and services.

Question 3.3. Are there interventions that government should be making to remove barriers to participation for businesses and non-profit organisations? What kinds of interventions should be made? Do these differ by sector?

16. Data in the energy sector is undergoing transformation as the industry and Ofgem and BEIS deliver the recommendations made within the Energy Data Task Force (EDTF) report. Ofgem (and BEIS) are supportive of the recommendations. One key recommendation is that energy system data should be 'presumed open'. This is a paradigm shift from today's world where parties must demonstrate why they should have access to data (which might be thought of as "regulated data") to the inverse where the onus is on the data holder to demonstrate any grounds for why access is not appropriate, to be transparent about the rationale for this and to provide a de-sensitised version of the data, having followed a sensitivity mitigation process.

17. To support this the EDTF have described mechanisms, such as an 'openness triage' process, to guide effective decision making for data openness. Ofgem are determining how it can best lower barriers to enabling the market to adopt this approach to data and is setting itself up to meet these

expectations itself. Ofgem views the EDTF recommendations as an effective approach to ensuring that the energy market's digital and data monopolies are utilised to best effect and so preserve the opportunity for new data-driven supply chains and markets to develop on top.

18. We believe industry already has the means to be making progress towards the collectively developed EDTF vision using today's market rules. Ofgem is now investigating options for how to best bring forward its part of the recommendations made by the EDTF, including changes to regulatory rules including updating our regulatory tool kit. Ofgem will constructively engage with these reforms, and support the EDTF's recommendations on any legislative change required to implement the presumed open principle

19. We suspect that "presumed open" data and other EDTF recommendations are potentially valuable approaches to other parts of the energy market, beyond the EDTF definition of "energy system data". We anticipate also that other regulated sectors can benefit from adopting approaches to the use of data in line with the EDTF recommendations. We also expect value in having regulators, as a collective, adopt consistent approaches to the expectations and obligations they place on market actors with respect to national assets. Our own experience is that data best practice is not particularly sensitive to the specific subject matter it is being applied to.

Question 4.1. How is the effective use of data driving business productivity through increased efficiency?

Question 4.2. What are the barriers to the potential productivity gains from more effective data use?

Question 5.6. What can government and the wider public sector do to improve its collection, sharing, analysis and storage of data?

Question 5.8. What best practice examples of data use in government can we learn from?

20. We, as the energy regulator, can provide a more positive and greater consistency of user experience to the organisations that exchange data with us (both when providing data to us and when consuming data from us) through a more effective use of data. We believe this consistency of experience can be delivered across regulated sectors - reducing industry's overall regulatory burden.

21. We also see growing opportunity for companies to "self-service" their regulatory obligations, in cases where regulatory decisions are mechanistic, self-service can be realised through the codification of regulatory rules into assured software. We expect wider benefits to be gained if we increase the availability of codified regulatory rules as this will increase opportunities for participation in regulation, where regulatory rules themselves can be thought of as a commonly used national asset (see previous answer).

22. Our external facing strategic solution to meet these needs is our Data Exchange. We believe that this investment can have value to other regulators too. We are therefore working with the UK regulators Network (through the Data Strategy Network) to ensure that our investment and the equivalent investments being made by other regulators is realised and that we have the opportunity to learn from their equivalent experiences.

23. Our experience has been that data best practice is similar/identical regardless of the subject it is dealing with. As the economic regulator for the energy market Ofgem expects that it is best placed as a user of central government guidance on data best practice, rather than defining this in isolation for the energy market. We recommend that Department for Digital, Culture, Media & Sport (or

another appropriate department) consider providing data best practice services, such as publishing guiding principles for all departments to follow. Ofgem, for instance, could then apply these to its internal operations and to its energy market regulations. We have already found the [Department for Environment, Food & Rural Affairs data principles](#) valuable, as well as the [Digital taskforce Framework's Gemini Principles](#) and the [Energy Data Taskforce principles](#). We see an opportunity for common - more generalised - principles to be agreed on and made available centrally by government. Having a single government home for data best practice will help drive consistency across government work and in how regulators set expectations on regulated markets' use of data. We see this as equivalent to how the Government Digital Service (GDS) has supported delivery of digital work: there is now a growing need for coordination of government and regulatory data-related work.

Question 4.7. What kinds of data should businesses and non-profit organisations make openly available? And why?

Question 4.9. Where appropriate, how might government encourage businesses and non-profit organisations to share more data they hold, where it cannot be made open?

Question 6.1. When should public authorities open up access to data they hold with other departments? When should they not?

24. By using the approach of data being “presumed open” and with a robust implementation of the triage and mitigation processes described by the EDTF report we believe consumer privacy needs can be satisfied, while also ensuring that opportunities for insight on public good can be capitalised on. We also anticipate that a “presumed open” approach is appropriate for data relating to national assets more broadly.

25. The presumption of data being open leads to an environment where all data that is not sensitive (or de-sensitised versions of data) can be shared, but to avoid unnecessary investment in preparing data, we advocate a needs-driven approach for its actually being opened/shared and similarly with respect to data quality, the needs for which we view as dependent on the use case. To enable would-be data users to state which data they have use cases for, we refer to another of the EDTF recommendations, the concept of visibility of data through being open with metadata. Metadata is typically far less sensitive than the data itself and so faces much lower barriers to being made available. Through its availability, stakeholders are enabled to be specific about their data needs, both with respect to existing data collections and through easing discussion of what new data collections are beneficial.

26. As such, we explicitly expect that public authorities should be sharing this information when it does not meet any blocking criteria on an openness triage. Further, as noted in our response to question 5.8 there are already ongoing discussions within the UKRN on sharing infrastructure, with data sharing agreements or an adoption of an openness principle possible. In principle, data should be presumed open and shareable unless explicitly stated and reasoned otherwise.

Question 4.10. What is the best approach to valuing public sector data in order to reflect its potential to stimulate private sector growth and to offer wider public benefits (financial or non-financial)?

Question 4.11. How can the public sector quantify, evaluate and weight these benefits in order to determine the terms on which the data could be made available?

27. Ofgem's processes and practices for when working with data follow a repeatable structured approach that is actionable and yet generalised and not specific to energy data. We are rolling this out enterprise-wide. We believe this process, or at least some form of it could form part of a central data best practice for government for when working with data. Our processes manage the end-to-end data lifecycle, which starts with a structured and systematic decision making process around the consumer value of collecting the data and doing any work in the first case. We anticipate that other government departments are similarly building corporate working practices. We believe that a consistent framework for how government works with data will enable better valuation and measurement of data. We can imagine this serving as a part of an overall service manual, equivalent to the Government Digital Service manual.

28. On a specific note, the EDTF report has highlighted opportunities for measuring data openness as part of its recommendation for establishing an energy system data catalogue. Diagnostics data on the catalogue itself has a lot of potential for allowing for measurement user interest and use of data.

Question 5.3. Are there areas within data management, use and access where there is a skills gap in government? What additional data skills are needed in government?

Question 2.6. How important are basic data skills for employment in today's economy? What is the basic level of data skills needed and what kinds of skills are needed?

Question 2.7. In which professions are data skills most important?

Question 2.8. Are the relevant skills available and supported where they're needed?

Question 2.9. Is industry able to provide the relevant skills or is further skilling needed through the education system?

29. The energy market is undergoing a huge digital and data transformation at present and this is also changing consumers' needs from us to realise effective energy regulation. Our regulatory policies and decisions increasingly hinge on digital and data related subject matter and our direct handling of data is growing rapidly. We expect these trends to continue. We are therefore finding that the capabilities we require to deliver effective regulation are very different to the past and will likely keep changing into the future.

30. For digital work government has some central support in place to help define best practice approach to skills, in particular with respect to the role definitions provided by Government Digital Services (GDS). However, our experience is that the fields of digital work are maturing to include a more diverse range of roles than recognised by GDS. Also, and posing greater challenges to our work, the GDS role definitions do not provide equivalent depth to data-related roles. Ofgem has itself progressed the definition of data roles and their delivery responsibilities. We will be happy to share these for other departments to learn from and similarly to learn from other departments to bring about greater commonality of working. We would value a centrally provided single set of recommended roles and expectations for government Digital, Data and Technology (DDaT) profession role definitions. This would enable us to more effectively follow best practice for data work.

31. Our experiences with securing roles in the digital and data marketplace is a reliance often on short-term contracts and consultancy support. We understand this to be the case in other government departments too. We understand there to be a mix of reasons for this. For certain professions the wider marketplace operates exclusively in this fashion, due to a limited supply of the needed skills.

32. Where we believe the skills are available and that our recruitment propositions are market rate competitive, we see a challenge with the perception of government work. Digital and Data professionals appear not to think of government as a place where they can further develop their talents – whereas in reality those who do join us have fantastic opportunities to develop their abilities, deliver work for the public good and work with cutting edge technology. We do not think this perception problem is limited to any single department.

33. We are finding a trend towards a need for relatively more specialists operating in multidisciplinary teams, compared to our history, where a greater portion of our staff have been generalists. As we make greater use of specialists to deliver work we are encountering specific markets for which those capabilities are in shorter supply. In these cases, the capability can be met by other approaches, such as accepting the need for government (as do private enterprises) to secure short term and consultancy contracts to meet its capability need. This challenge is particularly the case for senior technical roles.

34. Here are a sample of the particular roles new to our organisation: DevOps Engineer, Cloud Network Engineer, Data Business Analyst, Data Engineer, Data Quality Assurance Engineer, Data Science, Head of Cyber Security, Data Architect, Solution Architect, Enterprise Architect, Delivery Manager, Product Manager, Head of Data. Some of these feature in GDS guidance, many of our needs, met by these roles, are not.

35. We believe that to best facilitate the data transformation of the national economy, increased importance on data-related capabilities in government and in industry is critical. With respect to government, we see a challenge to be solved in ensuring the wider government employee value proposition is resilient and robust as our capability needs diversify, that this is sustainable to meet the challenges of short term market skills scarcity and is resilient to long term changes in skills needs and affordability. We urge investigation into the challenge we see around professionals' perception of government work. We encourage our Government's leadership to champion the opportunity for more efficient government and greater economic growth that people with these capabilities can deliver.



Steven Steer,
Head of Data, Ofgem.