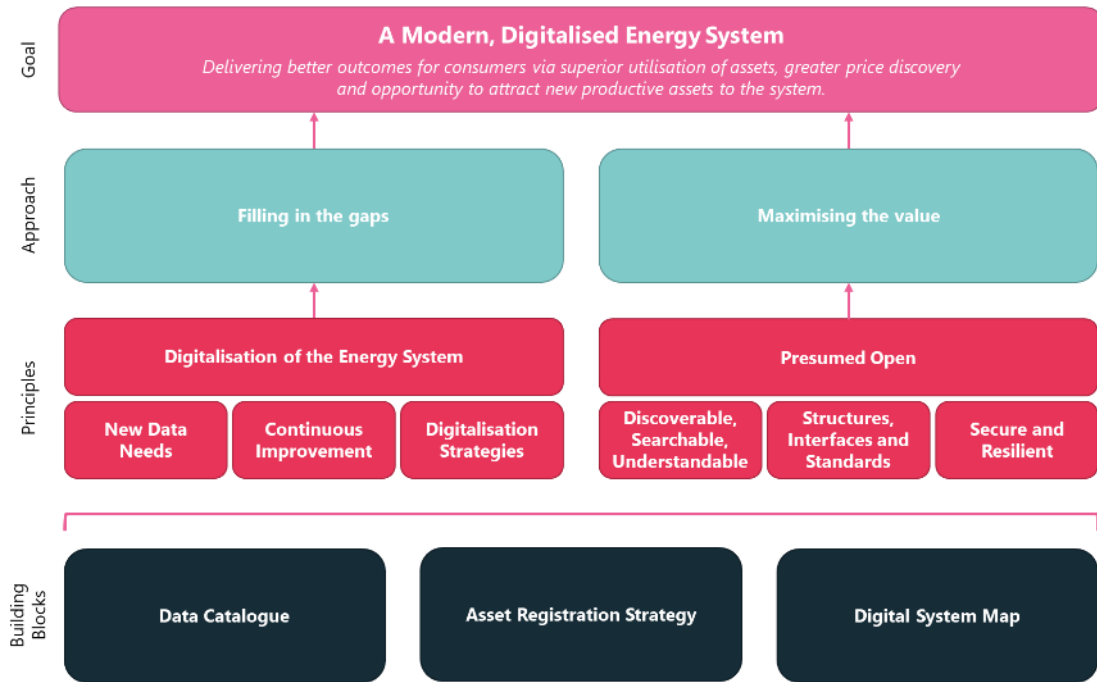


1. Introduction

The recommendations outlined in the Energy Data Taskforce report require coordination across the Sector, with specific effort required from Ofgem, Government and Industry actors. This appendix summarises the Energy Data Taskforce recommendations and where leadership and collaboration are required to achieve them.



As reference, black indicates the action from the recommendation should be led (or jointly led) by the party (or parties) highlighted, grey indicates support is required from that party.

	RECOMMENDATION	GOVERNMENT	OFGEM	INDUSTRY	OTHER PARTIES
Recommendation 1: Digitalisation of the Energy System Government and Ofgem should direct adoption of the principle of Digitalisation of the Energy System in the consumers' interest, using their range of existing legislative and regulatory measures as appropriate, in line with the supporting principles of 'New Data Needs' 'Continuous Improvement' and 'Digitalisation Strategies'. Many of these are support by specific Enabling Recommendations .					
1.1	The Taskforce recommends that energy infrastructure and assets should be digitally enabled and have data which enables them to be operated efficiently, and their impact evidenced.				
1.2	The Taskforce recommends new data needs should be proactively identified and addressed through a variety of approaches, from installation of new monitoring equipment to the use of data analysis on existing data.				
1.3	The Taskforce recommends that the government and regulator provide clear leadership through initiatives such as the 'DSO - regulatory principles, priorities and key enablers' workstream.				
1.4	The Taskforce recommends that regulation should be used to incentivise continuous improvement where appropriate but recognise that improving data and skills are part of running a modern business and can create organisational benefits.				
1.5	The Taskforce recommends that baseline expectations of digitalisation strategies are set through measures such as the RIIO2 business planning process, the Whole System Licence, the Long-Term Development Statements (LTDS) and the Ten-Year Statement.				
1.6	The Taskforce recommends that independent digitalisation strategy assessment be advocated to enable organisations' digital strategies to be benchmarked fairly and the progress of 'Digitalisation of the Energy System' be tracked.				
Recommendation 2: Maximising the Value of Data Government and Ofgem should direct adoption of the principle that Energy System Data should be Presumed Open, using their range of existing legislative and regulatory measures as appropriate, supported by requirements that data is 'Discoverable, Searchable, Understandable', with common 'Structures, Interfaces and Standards' and is 'Secure and Resilient'.					
2.1	The Taskforce recommends that as part of embedding the principle of Presumed Open, organisations adopt an Openness Triage process which considers a range of risk factors and develops an appropriate range of mitigation mechanisms.				
2.2	The Taskforce recommends that the sector should consider if there is value in a standardized procedure for openness triage, PAS 185 details a triage process for smart city applications.				

	RECOMMENDATION	GOVERNMENT	OFGEM	INDUSTRY	OTHER PARTIES
2.3	The Taskforce recommends that open data risk mitigation techniques (including but not limited to those described in the main report) be applied in all matters of open data as assessed by the Data Owner.				
2.4	The Taskforce recommends that support for Presumed Open should leverage existing mechanisms of organisational responsibility and enforcement instruments combined with a layer of transparency which enables continuous challenge.				
2.5	The Taskforce recommends that a cross sector public good and data ethics oversight is identified and developed through the Centre for Data Ethics and Innovation.				
2.6	The Taskforce recommends that data standards are adopted or developed to enable data across organisations to be aggregated and utilised more easily. Recommended approaches are summarised in the body of the report and Appendix 6.				
2.7	The Taskforce recommends that the sector progressively manages risk by: maintaining current security practice, utilising security advisors and deploying openness triage.				
2.8	The Taskforce recommends that the sector using mitigation techniques to retain the value of data when security issues with data are identified by the Data Owner, including those described in the main body of the report.				
Recommendation 3: Visibility of Data A Data Catalogue should be established to provide visibility through standardised metadata of Energy System Datasets across Government, the regulator and industry. Government and Ofgem should mandate industry participation through regulatory and policy frameworks.					
3.1	The Taskforce recommends that a 'Data Catalogue' be established to provide visibility of the data that exists across the sector through a common metadata standard.				
3.2	The Taskforce recommends that the Data Catalogue is based on the Dublin Core 'Core Elements' metadata standard.				
3.3	The Taskforce recommends that the Data Catalogue should be developed and managed by an independent, trusted party with a strong track record in data management. The Taskforce's review and analysis has led to consideration of the Office for National Statistics (ONS) as a partner.				
Recommendation 4: Coordination of Asset Registration An Asset Registration Strategy should be established to coordinate registration of energy assets, simplifying the experience for consumers through a user-friendly interface in order to increase registration compliance, improve the reliability of data and improve the efficiency of data collection.					

	RECOMMENDATION	GOVERNMENT	OFGEM	INDUSTRY	OTHER PARTIES
4.1	The Taskforce recommends that a sector wide Asset Registration Strategy should be developed and adopted to curtail the proliferation of standalone registration platforms.				
4.2	The Taskforce recommends that the Asset Registration Strategy should be driven by an organisation that is open, independent, empowered and experienced. Consideration should be given to a regulator led approach.				
4.3	The Taskforce recommends that a programme be established to consider the strategic options including that of a single Asset Registration Portal.				
Recommendation 5: Visibility of Infrastructure and Assets					
A unified Digital System Map of the Energy System should be established to increase visibility of the Energy System infrastructure and assets, enable optimisation of investment and inform the creation of new markets.					
5.1	The Taskforce recommends the development of a Digital System Map that will help unlock the opportunities of a Modern Digitalised Energy System.				
5.2	The Taskforce recommends that the Government and Ofgem commission an open and interoperable Digital System Map of the Energy System. Utilising learning and resources from existing projects described in the main report.				
5.3	The Taskforce recommends that Energy System actors use existing data sets to build a map of current energy infrastructure and that third parties share other data to further inform its enhancement and evolution towards a digital twin.				
5.4	The Taskforce recommends that the digital system map should be a public good project to enable greater competition and drive investment into the sector. It therefore should be owned by an organisation with no commercial interest in the energy sector such as a university, not for profit organisation or independent IT consultancy.				
Enabling Recommendations					
E.1	Government and Ofgem Leadership: The Taskforce recommends that Government and Ofgem explicitly endorse the principles and recommendations and be clear on their expectations of the sector through stating clear policy and regulatory intent.				
E.2	Environmental Information Regulation: The Taskforce recommends that the sector considers utilising EIR to facilitate the release of Energy System Data, both proactive dissemination (Regulation 4) and on request (Regulation 5).				

	RECOMMENDATION	GOVERNMENT	OFGEM	INDUSTRY	OTHER PARTIES
E.3	Electricity Act 1989 - Section 9: The Taskforce recommends that organisations consider Digitalisation of the Energy System and Presumed Open as part of existing obligations to “develop and maintain an efficient, co-ordinated and economical system of electricity” distribution / transmission and “facilitate competition in the supply and generation of electricity”.				
E.4	Whole System Licence Modifications: Ofgem are currently considering licence changes for electricity networks and have just concluded a consultation to which the Taskforce responded. The Taskforce recommends that Ofgem consider taking this opportunity to embed the Taskforce principles into the licence at this point.				
E.5	Liability Waiver: The Taskforce recommends developing a set of standard waivers to help give organisations comfort regarding the release of data in circumstances where there is concern about liabilities that could arise due to data quality or completeness.				
E.6	Code Administrator Code of Practice: The Taskforce recommends that industry consider adopting the principles or Building Block projects into the CACoP in order to encourage adoption of the recommendations.				
E.7	Long Term Development Statement Review: The Taskforce recommends that principles proposed to be embedded within the LTDS.				
E.8	Review of Terms and Conditions: The Taskforce recommends that all owners of public datasets should aim to clarify the terms and conditions that apply to that information and aim to make it as discoverable as possible via metadata and discoverability mechanisms.				
E.9	The Retail Energy Code: The Taskforce recommends that the Retail Energy Code should be an early adopter of the principles.				
E.10	Licence Conditions: The Taskforce recommends that Government and Ofgem consider using licence conditions to ensure licensed actors are compelled to register their metadata with the Data Catalogue.				
E.11	RIIO2: The RIIO2 price control be treated as an opportunity to embed the core principle of Digitalising the Energy System. The Taskforce recommends that Ofgem consider a full set of mechanisms (as noted in the body of the report).				
E.12	Codes Modifications: The Taskforce recommends that code modifications be considered and if appropriate, implemented to increase the number and range of actors required to participate with the Data Catalogue.				

	RECOMMENDATION	GOVERNMENT	OFGEM	INDUSTRY	OTHER PARTIES
E.13	Code Review: The Taskforce recommends that Government and Ofgem use the Energy Code review as opportunity to embed the principles.				
E.14	Policy Change: The Taskforce recommends that Government and Ofgem consider acting to address several legislative barriers to data release which could be reduced and overarching obligations which could be created.				
E.15	Export Tariffs and Market Access: The Taskforce recommends that Government and Ofgem consider that in order to access an export tariff or participate in an energy market there should be a requirement for the asset to be registered via the Asset Registration Strategy.				

LICENCE/DISCLAIMER

Energy Systems Catapult (ESC) Limited Licence for **Recommendation Actions: Energy Data Taskforce Appendix 1**

ESC is making this report available under the following conditions. This is intended to make the Information contained in this report available on a similar basis as under the Open Government Licence, but it is not Crown Copyright: it is owned by ESC. Under such licence, ESC is able to make the Information available under the terms of this licence. You are encouraged to Use and re-Use the Information that is available under this ESC licence freely and flexibly, with only a few conditions.

Using information under this ESC licence

Use by You of the Information indicates your acceptance of the terms and conditions below. ESC grants You a licence to Use the Information subject to the conditions below.

You are free to:

- copy, publish, distribute and transmit the Information;
- adapt the Information;
- exploit the Information commercially and non-commercially, for example, by combining it with other information, or by including it in your own product or application.

You must, where You do any of the above:

- acknowledge the source of the Information by including the following acknowledgement:
- "Information taken from Recommendation Actions: Energy Data Taskforce Appendix 1, by Energy Systems Catapult";
- provide a copy of or a link to this licence;
- state that the Information contains copyright information licensed under this ESC Licence.
- acquire and maintain all necessary licences from any third party needed to Use the Information.

These are important conditions of this licence and if You fail to comply with them the rights granted to You under this licence, or any similar licence granted by ESC, will end automatically.

Exemptions

This licence only covers the Information and does not cover:

- personal data in the Information;
- trademarks of ESC; and
- any other intellectual property rights, including patents, trademarks, and design rights.

Non-endorsement

This licence does not grant You any right to Use the Information in a way that suggests any official status or that ESC endorses You or your Use of the Information.

Non-warranty and liability

The Information is made available for Use without charge. In downloading the Information, You accept the basis on which ESC makes it available. The Information is licensed 'as is' and ESC excludes all representations, warranties, obligations and liabilities in relation to the Information to the maximum extent permitted by law.

ESC is not liable for any errors or omissions in the Information and shall not be liable for any loss, injury or damage of any kind caused by its Use. This exclusion of liability includes, but is not limited to, any direct, indirect, special, incidental, consequential, punitive, or exemplary damages in each case such as loss of revenue, data, anticipated profits, and lost business. ESC does not guarantee the continued supply of the Information.

Governing law

This licence and any dispute or claim arising out of or in connection with it (including any noncontractual claims or disputes) shall be governed by and construed in accordance with the laws of England and Wales and the parties irrevocably submit to the non-exclusive jurisdiction of the English courts.

Definitions

In this licence, the terms below have the following meanings: 'Information' means information protected by copyright or by database right (for example, literary and artistic works, content, data and source code) offered for Use under the terms of this licence. 'ESC' means Energy Systems Catapult Limited, a company incorporated and registered in England and Wales with company number 8705784 whose registered office is at Cannon House, 7th Floor, The Priory Queensway, Birmingham, B4 6BS. 'Use' means doing any act which is restricted by copyright or database right, whether in the original medium or in any other medium, and includes without limitation distributing, copying, adapting, modifying as may be technically necessary to use it in a different mode or format. 'You' means the natural or legal person, or body of persons corporate or incorporate, acquiring rights under this licence.

Energy Systems Catapult supports innovators in unleashing opportunities from the transition to a clean, intelligent energy system.

Energy Systems Catapult

7th Floor, Cannon House
18 Priory Queensway
Birmingham
B4 6BS

es.catapult.org.uk
info@es.catapult.org.uk
+44 (0)121 203 3700