



ElectraLink Autumn Webinar Series

Driving Energy System Transition: Why regulation should not be a barrier

Part 1: Navigating regulation in the energy system transition



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Speakers and panellists



Mark Olliver

Head of Advisory Services,
Governance Services,
ElectraLink



Melanie Bryce

Oxfordshire Programme
Director, SSEN



Hollie Nicholls

Advisor, Governance Services,
ElectraLink



Anthony Bivens

Senior Advisor, Governance
Services, ElectraLink

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About ElectraLink



Governance Services

Governance Services manages a number of the 'rule books' in the gas and electricity markets including DCUSA, SPAA, SMICoP

Data Transfer Service

The regulated data transfer service now incorporates the gas market and commercial services include connections to all the UK water companies

Energy Market Insight

Energy Market Insights provides analysis of the data transferred by the DTS which is a unique dataset managed under the governance of the DTS Agreement

ElectraLink has evolved into a regulated/commercial utilities solutions business with Governance and Advisory Services, Energy Market Insights and a common goal to solve industry problems

Current Regulatory Landscape



Current Regulatory Landscape



1

Legislation

DNOs are subject to the legislation that facilitated privatisation of the electricity market and set in place a competitive electricity supply industry in GB.

Legislation established the licencing regime as well as the industry regulator.

Examples to consider are the Electricity Act 1989 and UK Competition Law

2

Regulation

Under the Electricity Act 1989, activities concerning electricity may only be carried out with a licence.

Ofgem determines the content of electricity licences and grants licences to successful applicants.

E.g. Electricity Distribution Standard Licence Conditions

3

Industry Codes

Licence holders must become party and comply with industry codes and standards.

Industry codes establish rules that govern market operation and the terms for connection and access to energy networks.

For example, the Distribution Connection and Use of System Agreement (DCUSA) and the Connection and Use of System Agreement (CUSCI).

4

Industry Standards

Licencees are also required to comply with technical codes and standards relating to transmission and distribution networks.

E.g. GB Security and Quality of Supply Standards (SQSS) and Distribution System Planning Standard (DSPS).

Agile regulatory governance and market change



1

Why do we have codes and governance?

To ensure market participants understand what is expected of them

To ensure market participants know what to expect from each other

To allow the industry to govern itself function efficiently

To create a level playing field that allows for competition and innovation

2

Today's code management challenges

Change process is too slow

Changes can be expensive to deliver

Domination of bigger organisations

Resource constraints

Lack of engagement and collaboration

Complex codes

3

So why the need for change?

Net zero

Increased numbers and variety of market participants

Technological advances

Greater levels of innovation – new players from outside the industry who want to ask fast and be agile

Growth in number of energy suppliers

4

How are we innovating?

Accessible

Flexible

Agile

Relevant

Cost effective

Enabling industry change at scale

DSO Roadmap from 2020 and Beyond



Short Term DSO Objectives: 2018 - 2022



Data

Modernising Data Management Practices - IT/OT architecture reviews

Digitalising assets, customer information systems and distribution system analysis

Smart meter readiness and leveraging value from rollout plus data integration

Improving the availability and accessibility of data, sharing, information and systems

Definition and implementation of data roadmaps and associated services

Some DNOs are exploring Data Roadmap concepts – During 2020 and beyond

Technical

Preparing for EV uptake, continued investment and innovation in EV trials and other other networks areas

ESO - DSO integration with whole system planning and DNO/ESO flexibility procurement

Scenario based load forecasting and improving visibility on investment decisions

Procurement and operation of flexible connections

Changes to engineering standards and technical specifications

Commercial and Customer

Flexible connections (ANM etc.) and flexibility offerings

Ramping up for flexibility services - Expand use, integrate, converge, market stimulation and development

Developing approaches to DSO - Fair and reflective network charging and ANM charging methodologies

Cyber security roadmaps

Understanding technology and innovation toolkits and changing consumer behaviour

Initiate changes to licence, industry codes, legislation

2023 – 2028 and RIIO ED2 Live



Data

Understanding impacts of EVs, load growth and the role of data in adding clarity and improving oversight

Emergence of Data Platform concepts

Upgrades to network management systems and operational decision making to deal with emerging DSO actions

Building capability on data and staff development, enhanced understanding and ability to act on captured / anticipated data

Enhanced data visibility, accessibility and sharing across industry to underpin the development of new services and solutions and to manage the rollout of EV, heat, general demand growth etc.

Some DNOs are exploring Data Roadmap concepts – During 2020 and beyond

Technical

Forecasting needs for flexibility - Well considered interventions such as local monitoring

Deploying flexibility solutions at network level (domestic and non domestic)

Technical solutions for load growth - Technological, service based and commercial

Flexible connections - standard offerings and enhanced customer visibility of capacity to connect/ flexibility schemes

Changes to engineering standards and technical specifications

Commercial and Customer

Leveraging benefit from the smart meter rollout and understanding how this impacts/ influences customer behaviour

Smart meters as a technology to unlock new flexibility services with appropriate market development and comms, market and technology development

More effective forecasting for demand and understanding requirements for network investment

Improving customer knowledge and tools for connections at all levels - Generation, transport and heat etc.

Understanding technology and innovation toolkits and changing consumer behaviour

Changes to licence, industry codes, legislation

Enabling Net Zero policy and regulatory changes

Longer Term DSO Objectives: 2027 and Beyond..



Data and Systems

DSO Systems interacting with flexibility markets and other market participants

Visibility and accessibility of relevant data to relevant users

Cyber secure data exchanges with third parties

New IT systems and data platforms and tools live

Data roadmaps and platforms

Technical

System actively managed and evolution of NMS complete

Deploying flexibility solutions at network level (domestic and non domestic)

Providing flexibility services/ response services to ESO and other boundary DSOs

Integrated decision making for DSOs

Changes to engineering standards and technical specifications

Commercial and Customer

Operating as DSOs - Commercial operations becoming part of core network operator business

Enhanced customer interactivity and engagement with their energy usage

Network Charging Evolution - Dynamic pricing and time of use tariffs and emergence of new technologies allowing customers to engage with their energy in financial terms

Understanding technology and innovation toolkits and changing consumer behaviour

Return to 'business as usual' development cycles for industry codes

Action on Net Zero targets during ED2 and beyond

Flexr



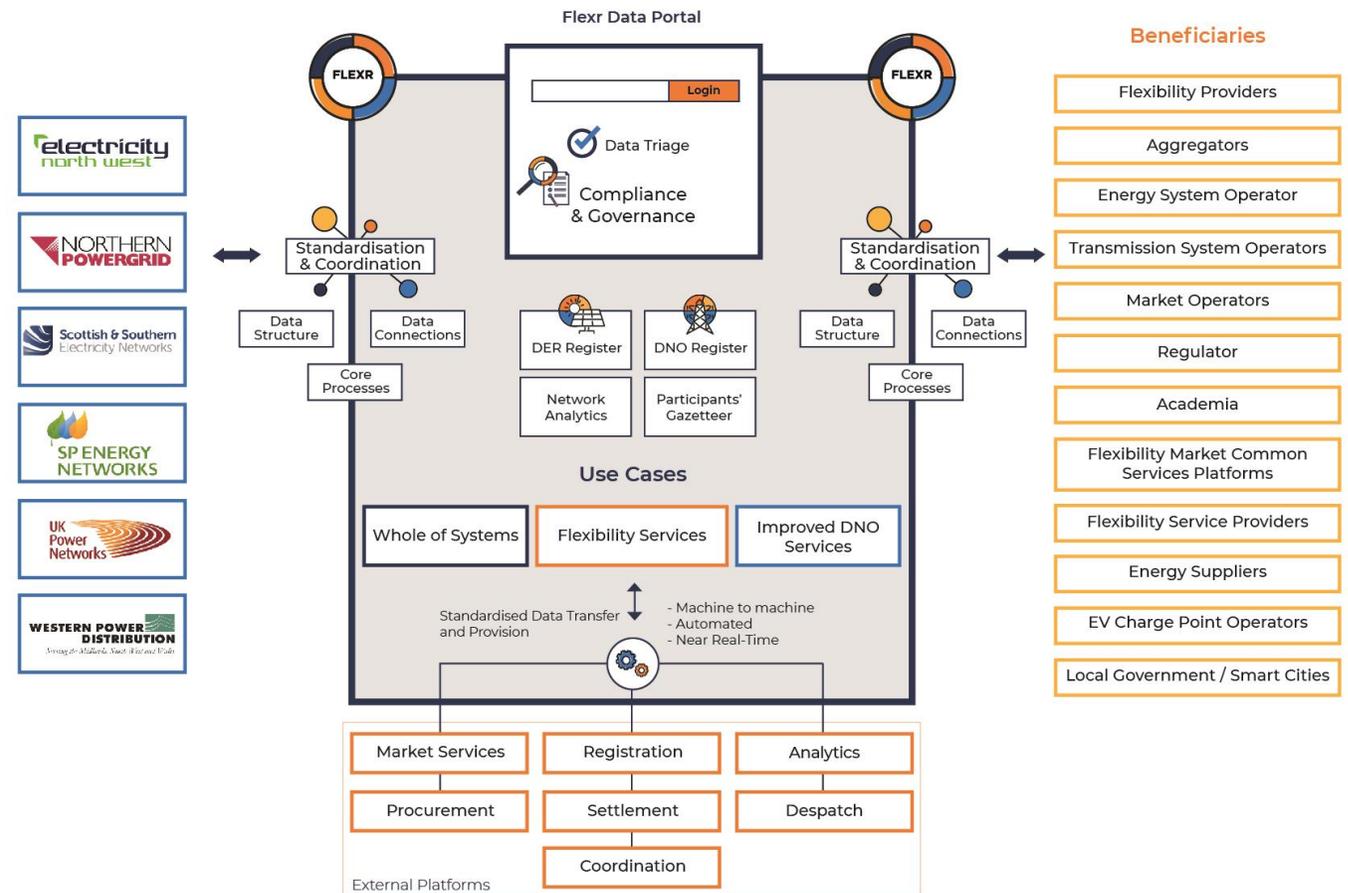
Flexr: Accessible, Open Data and Agile Governance



Flexr is a DNO data provision and standardisation service designed to facilitate the energy market transition by lowering the bar for all competition in the flexibility space. Flexr provides non-differentiated services by reducing costs and simplifying access to market data for flexibility providers. It will enable increased innovation in the flexibility market space and reduce barriers to entry for stakeholders. In addition, Flexr will demonstrate how a central data service can enhance planning, forecasting, operation and whole of system integration.

Further reading -

<https://www.electralink.co.uk/wp-content/uploads/2020/05/ElectraLink-Flexr-Webinar-200520-.pdf>



Case Studies



DSO Vision: Regulatory Roadmaps and Impact Assessments



The development of a Regulatory Roadmap and Regulatory Service Framework with repeatable Impact Assessment to provide a strategic view of the future regulatory requirements and possible constraints for SSEN's TRANSITION project.



Case Study: **ElectraLink and SSEN - TRANSITION & Project LEO Regulatory Governance**

As the TRANSITION and LEO projects progress, it must be ensured that regulatory requirements are considered, both in terms of potential barriers that existing Licences and Codes may present and equally opportunities to determine new ways of working. Whilst the evaluation of new technologies and ways of working are essential, the associated regulatory framework was also be established in parallel, to identify the need for new Licence and Code arrangements to enable innovation or the timely and incremental evolution of measures already underpinning market.



Digitalisation: Ensuring more accessible digitised codes



Digitalised codes help a user to better understand the obligations and processes within a complex document. This lowers barriers to entry and increases compliance.



Case Study: **Digitalisation of DCUSA**

DCUSA used the adjacent principles to develop a digitalisation roadmap:

- Digitised Document – Starting with digitised document and machine readable DCUSA document.
- Customer Journey viewer / CodeNavigator – To include plain English versions of obligations via an interactive customer journey.
- Change Portal – A portal for the online management and collaboration on Change Proposals.
- Code Management – A tool to manage code versions, documents, minutes, agendas, and stakeholders for DCUSA meetings and working groups.
- DCUSA Dashboard Portal – A portal that bring together the digital functions above in a dashboard, relevant information in one place, allow document sharing, collaboration and data self-serve functionality.
- Kanban Board – Utilising a lean visualisation to view change.

DCUSA Digitalisation

Defining principles:

1. Improve Understanding
2. Unify Information
3. Increase Accessibility
4. Customer Focussed
5. Personalised Experience
6. Agile development



The DCUSA Innovation Sandbox

To promote innovation throughout the energy industry, a DCUSA Innovation Sandbox has been created to allow innovators to trial new products, services and business models in a real-world environment without having to comply with industry obligations.



Case Study: **The DCUSA Innovation Sandbox**

The DCUSA Sandbox seeks to bring flexibility and the creative spirit to innovation in the electricity system, providing a regulatory test environment for new products and solutions as part of Ofgem's Innovation Sandbox Service. In the past, fresh ideas have often come up against strict regulatory obstacles, but the net zero target for 2050 is injecting hopeful urgency into how the energy market adapts to solve problems.

Support is available in developing the initial business case through to post-Ofgem approval and Change Proposal development.

Who should apply?

1. Flexibility providers
2. EV charge point installers
3. Technology providers
4. Energy services providers
5. Aggregators
6. Network operators



Summary of today's session



1

Principle based approaches enable alignment between the technical and regulatory programme's objectives

2

Regulatory roadmaps can provide agility and required foresight for wider programme delivery

3

Regulation and codes can be an enabler not a barrier

4

ElectraLink work with stakeholders to help shape regulatory change and to support the delivery of the DSO vision



For further information, if you have questions or would like to discuss any of the detail outlined during this webinar please contact the Advisory Services Team at: Advisory-services@electralink.co.uk

Please join us for Part 2 of this webinar on 11 November @ 2pm where we will discuss "Enabling innovation through regulation", register on our website.