Power Responsive Steering Group
Note of Fifteenth Meeting

2 May 2019, 13:00-17:00 hrs, held at Elexon's offices, 350 Euston Rd, London NW1 3AW.
This note was prepared by Sustainability First on behalf of the Power Responsive Steering Group.

1. Welcome and introductions

Cathy McClay (chair) welcomed guests, noting that this would have been the final meeting of the Power Responsive steering group based on the original programme timescales. However, due to the success of Power Responsive, National Grid Electricity System Operator (NG ESO) intends to continue the programme under its business-as-usual activities – a step supported by steering group members who continue to find value from the programme.

A 'special' steering group meeting was held on 10 April 2019 on RIIO-2[1] – helping NG ESO to set its ambition level and develop a clear business plan.

The previous steering group meeting on 30 January 2019 focused on ***supporting demand side flexibility (DSF) providers through change and uncertainty in the short to medium term***.

The May 2019 steering group focused on ***unlocking demand-side flexibility through code reforms*** – considering the various codes that currently underpin the energy industry, how they are governed, and their complex interactions. Steering group members then discussed potential changes to codes and governance structures to better enable DSF. The session concluded with a summary of Power Responsive activities and next steps.

2. Horizon Scan

BEIS and Ofgem gave policy and regulatory updates. NG ESO and Open Networks updates were provided as a 'pre-read' document.

BEIS

BEIS noted that 16 of the 29 actions identified in the Smart Systems and Flexibility Plan are complete. They have also completed one of the nine new actions outlined in the plan. A Progress Update was published in October 2018. Steering Group members asked what would happen once all actions are complete. BEIS highlighted that the plan will continually be reviewed and new actions added as needed.

There have been a series of major innovation competitions. BEIS is currently developing an Energy Strategy building on Greg Clark's After the Trilemma speech – which set out four principles for the power sector (markets, insurance, agility and no free-riding). BEIS plans to publish a White Paper in the summer and an Energy Bill. As part of this work, BEIS is reviewing energy codes, data, engineering standards, the future of retail and nuclear power, also setting out a future vision for the energy system to 2020 and 2050.

The Committee on Climate Change recently called for net zero emissions by 2050. BEIS agrees that this target is achievable and makes economic sense.

Steering Group members asked whether there were any updates on the Capacity Market – but there were not. Steering group members fed back the need for a high level of detailed expertise either within BEIS or through consultants to identify areas of contradiction in the development of policies and the potential for unintended consequences. For example, interactions between Contracts for Difference and the Capacity Market; the treatment of gas based Combined Heat and Power; and decarbonisation of transport whilst electricity is generated from gas power stations.

It is important for the White Paper to give a 'holistic' overview of the Government's energy strategy now and in future – with clear plans and timescales. Steering group members suggested that it could

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[1] Network charging framework for electricity and gas distribution and transmission based on **R**evenue = **I**ncentives + **I**nnovation + **O**utputs (RIIO) in its second phase.

also help to disentangle any 'blurring' of the governmental and regulatory roles. Ofgem for example, plans to implement changes to charging arrangements with significant distributional impacts for consumers. It may be appropriate for the Secretary of State to give strategic guidance to the regulator.

Ofgem

Ofgem noted that further documents on RIIO-2 are due in May and on the Targeted Charging Review (TCR) during the summer. Ofgem is also getting the message about the need to explain how all their different work programmes tie together – including to ensure a clearer narrative on flexibility, and the impacts on consumers. A group considering access and forward looking charges meets in May. Consideration is needed on licencing and code arrangements – to enable innovation and change – tied in with retail market reforms. A steering group member highlighted the disproportionate levels of regulation – too much in some parts of the industry and too little in others.

The ENA has various working groups on forward-looking distribution charges, including a challenge group. MEUC is the only representative for Industrial and Commercial (I&C) customers on the challenge group. It was suggested that there has been insufficient engagement with consumers – i.e. the people who will ultimately pay the bills. A major challenge with engagement in this area is the level of technical expertise required. There are currently ~50 people involved in the challenge group – some are knowledgeable; others are new to the market. If only charging experts are involved in the process, then it might be harder to achieve innovation.

DSF providers suggested that they are 'trying to run on shifting sands' – with considerable change across the industry currently. It is not always possible for DSF providers to prioritise issues for I&C customers as something could unexpectedly become a big issue. For smaller parties, there is a risk of missing important developments. NG ESO plans to focus on simpler communication of important developments rather than produce lots of publications.

Some steering group members felt we have gone 'beyond saturation point' for stakeholder engagement. More stakeholder engagement is not necessarily better. Its critical to ensure that there is appropriate representation (esp. of consumer interest) and people's time is used effectively. It was suggested that a greater reliance on stakeholder engagement by institutional bodies (such as BEIS, Ofgem, NG ESO) could be linked to an underlying lack of confidence or technical expertise to make changes at detailed levels. In order to make decisions at detailed levels, a holistic plan is needed which holds everything together.

It was noted that Ofgem has recently approved a modification to the distribution charging methodology, which came up from the DCUSA[2] Panel: DCP[3] 268 to extend the three level Red/Amber/Green ('RAG') charge currently in place for half-hourly metered customers to non-half-hourly metered customers, including households from 2021 – but it is not clear how this change fits with wider work on cost reflectivity and distributional impacts on customers. There appears to be disconnection between changes coming up from technical panels dominated by individual interests, versus the strategic concerns of policy makers about fairness and consumer vulnerability.

It was also suggested that policy makers might consider a 'one in one out' approach when developing new initiatives – prioritising what is most important – for example, do we need a focus on faster switching? Ofgem is under increased pressure due to the number of modification proposals it is being asked to decide on, and is spending more time on prioritising.

Overall, it was agreed that the trend toward enhanced engagement has been positive. Power Responsive has played a part in pioneering more collaborative working. Although the process can be time consuming, the result will be larger groups of stakeholders becoming more knowledgeable. Institutions need to be respectful and inclusive in their engagement – ensuring the process is useful for participants.

3. Unlocking demand-side flexibility through Code Reforms
a. Code Governance – The Current Landscape

Cathy McClay opened the discussion suggesting that the codes underpinning the energy system are complex and slow to change. They operate as a contract and have therefore become detailed, prescriptive, written in legalese. They are governed by committees and often managed by people who

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[2] Distribution Connection and Use of System Agreement (DCUSA)
[3] DCUSA Change Proposal (DCP).

have worked on them for years and think they are fine. As we move to a smarter, decarbonised, consumer-led energy system – will codes present a barrier and slow progress? Are we reaching a stage where 'tweaking' existing codes does not go far enough? Could they be simplified and/or merged together? Currently changes appear to be led by individual interests – could the code governance be more strategic, rather than tactical?

BEIS and Ofgem are undertaking a comprehensive review of the codes governing our energy system through the Energy Network Codes review. They recognise that the current approach is slow, reactive, overly complex, resource intensive, lacking coordination and fragmented. Elexon has produced a policy view on the codes review. John Twomey leads on the code review for NG ESO, and outlined the codes, standards and licences under consideration:

Balancing and Settlement Code (BSC)	A legal document that defines the rules and governance for the balancing mechanism and imbalance settlement processes of electricity in Great Britain.
Connection and Use of System Code (CUSC)	The contractual framework for connection to, and use of, the National Electricity Transmission System.
Grid Code	Technical specification that defines the parameters a facility connected to a public electric network has to meet to ensure safe, secure and economic proper functioning of the electric system. For example, required behaviour of a connected generator during system disturbances.
Distribution Connection and Use of System Agreement (DCUSA)	A multi-party contract between licensed electricity distributors, suppliers and generators in Great Britain concerned with the use of the electricity distribution system.
System Operator-Transmission Owner Code (STC)	Defines the relationship between the transmission system owners and the transmission system operator. The STC procedures set out the roles, responsibilities, obligations and rights of each party in detail.
Security and Quality of Supply Standard (SQSS)	Establish a coordinated set of criteria and methodologies that transmission licensees use in planning and operating the National Electricity Transmission System.
Uniform Network Code (UNC)	The competitive gas industry's legal and contractual framework for the transportation and supply of gas. It has a common set of rules to ensure that competition can take place on equal terms.
Smart Energy Code (SEC)	A multi-party agreement which defines the rights and obligations of energy suppliers, network operators and other relevant parties involved in the end to end management of smart metering in Great Britain.
Licences	Including separate licences for Transmission, Distribution, Generation and Supply of gas and electricity.

There was discussion on issues with the codes and governance processes today. Key points included:

- **The energy system is undergoing unprecedented change** – but the rules and practices governing it were designed several decades ago. We need to ensure frameworks support the energy system and markets of the future.
- **New business models are emerging** – codes can present barriers for new market actors, who are typically smaller, resource restricted organisations, potentially unable to afford consultancy. To propose a modification, a package of detailed technical expertise and knowledge is required. Ofgem has introduced a regulatory sandbox to enable innovative initiatives and business models, through an exemption from certain requirements. It is difficult for new market actors to understand all the energy codes and standards, let alone engage with code development.
- **There are many different codes, which are complex, detailed and prescriptive** – they constitute thousands of pages of technical detail in legalese and industry jargon. Few organisations understand the content of codes, and even fewer individuals could consider the inter-linkages within and across codes, to understand the potential for unintended consequences.

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Some codes could be merged, but the content would also need to change and there might be resistance from code managers. Aggregators see themselves as 'code acceptors', whilst even some of the larger market actors cannot familiarise themselves and track all codes.

- **The governance change process is slow and resource intensive** – it can take years from identifying an issue, to raising a modification, passing it through working groups and gaining sign off from Ofgem. By which time the market may have moved on. However, from an Ofgem perspective, the significant amount of thinking that goes into code modifications before reaching the regulator is beneficial.

- **Working groups can be a 'tactical playing field for betterment'** – although members of code panels and working groups are chosen for their technical expertise and should put aside vested interests, no members table changes which are against their interests. In order to table modifications, a strong business case is required – including a thorough understanding of what to change and why. This needs to be driven by proactive individuals, with resources – and it tends to be the same people making changes. New entrants and the interests of consumers may be underrepresented on code working groups and panels. Ofgem would like to see a more diverse make up of code panels.

- **Codes as a contract or principles based?** Energy codes currently act as a contract between parties and therefore include all the legal detail necessary. NG ESO noted that they proposed one paragraph to include in a code, which was converted into 10 pages of text by their lawyers. Sometimes the detail can be arbitrary – such as the size, type, colour of a piece of equipment, when those aspects are not intrinsic to its function. DNOs noted that there is a bias in favour of 'build' solutions, whereas a commercial option would have to go through a derogation process in the SQSS. Rigid requirements and interpretation of rules can present barriers to innovation and market participation (e.g. metering requirements). An alternative principles-based approach was discussed – this would require an independent arbiter (such as Ofgem) and guidance documents.

- **Different bodies manage codes –** so there could be pragmatic challenges in streamlining them. Greater cooperation and collaboration between bodies is needed. For example, working together to take out everything redundant, then identifying the main features of each code and potential for interactions between them.

- **Balancing Services are not based on codes –** This allows for the rules and guidance to be developed and changed more fluidly. DSF providers highlighted helpful work between NG ESO and ADE to address barriers to entry in the frequency response testing regime, work that would have taken over a year through a code governance approach has been progressed in just a few months. Some issues were noted such as 'issue 74' lack of visibility of non-balancing mechanism STOR[4] actions. NG ESO also needs to afford sufficient time for people to meet requirements – for example the terms have not yet been published for the auctions opening 13 June[5].

- **Strategic view of codes** – the process is largely bottom up, which means it tends to be more tactical and reactive. A strategic view across all the codes is needed to enable an understanding of the wider ramifications of changes and the winners/losers.

- **Implications of Britain's exit from the EU** – it is anticipated that GB will still participate in a single EU energy market and therefore abide by the codes and regulations. The codes will refer to EU requirements as part of a legal interpretation.

- **Cross industry working and perseverance** – BEIS acknowledged that the industry has made several attempts to simplify codes and their governance, and is mindful of not reaching a point where tackling the issue is deemed too difficult.

b. Code Governance - Future Ambition for Code Reforms

Cathy McClay opened the second part of the steering group discussion by asking: What does good look like for energy codes? Do market actors care what codes look like – or do they just accept them?

BEIS and Ofgem are looking at three areas in their code review:
- **Content of the codes** – recognising that government is not the right institution to edit codes but could help to shape industry work on simplification and consolidation.
- **Balance of power** – between industry and code bodies.
- **Strategic issues** – what happens if changes or programmes of work intersect with more than one code? Could the process anticipate change rather than be reactive.

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[4] Short Term Operating Reserve (STOR)

[5] Contract terms were published on 11 May https://www.nationalgrideso.com/insights/future-balancing-services

The steering group identified some ways in which the codes and their governance could be improved, which formed a set of guiding principles:

- **Principles-based rather than prescriptive contracts** – Some steering group members felt that industry should reconsider the legal status of codes – shifting away from prescriptive contracts to a 'principles-based' approach. With a short document of principles and minimum standards, and associated guidance documents and examples. Ofgem's recent licence change for DNO ownership of storage was short with a more detailed guidance document, for example. A principles based approach would require a new governance structure – with an independent arbiter. There are differences in the obligation level between codes – and for some codes a contract may be more appropriate. The challenge of changing codes whilst using them was noted. It was suggested that the unnecessary parts are taken out immediately, with a clear destination and route-map.
- **Open governance** – The UK has an open governance process – this is not always the case in other countries. BEIS and Ofgem are looking at governance approaches in other countries – including Australia where they have an open court process. In the Netherlands, code changes can be implemented in days rather than years. Catherine Mitchell (University of Exeter) has set out helpful international examples for IGov.
- **Clear purpose –** As codes have developed, their purpose has become 'murky'. In reviewing codes we need to clarify the distinct purpose of the code, and also consider how wider priorities – such as sustainability, innovation and consumer value – can be supported by codes.
- **Simple –** Could the codes be constructed more simply, so that smaller actors can 'plug and play'. There was concern that even if codes are stripped down they will grow again. Could they represent a 'minimum standard'? How 'deep' do the codes need to be?
- **Accessible –** The codes should be understandable, in plain English – whilst remaining legally precise. An industry glossary may ensure a common language and understanding. However, it was suggested that an aggregator's role is to engage in the detail of codes.
- **Consistent –** Consistency across all codes would be helpful – including a common approach, terms and conditions, language and the centralised glossary.
- **Consolidated –** It may be appropriate to consolidate some codes e.g.
  - **Retail energy code** – incorporating Master Registration Agreement (MRA), Supply Point Administration Agreement (SPAA) and the Smart Energy Code (SEC)
  - **Wholesale and balancing code** – consolidated arrangements for electricity and gas.
  - **Technical code** – covering network connections – harmonising elements of distribution and transmission codes for a whole system perspective.
- **Stakeholder engagement** – Who is the audience? There's a broad range of stakeholders, who need to understand the codes to a certain level. Currently the document is designed for lawyers. The process is not sufficiently inclusive of end consumers – the people who pay – and their representative bodies.
- **Agile –** Codes need to be able to move at pace, reflecting change across the energy sector. It should be possible to quickly test out initiatives – for example with temporary derogations to the rules through sandbox processes – before formalising changes through the code process.
- **Digitised** – Digitisation of the codes could enable changes to be reflected more quickly and tailoring for businesses (using artificial intelligence) – for example, linking areas of the code that relate, helping to avoid unintended consequences, and highlighting the areas that may impact specific stakeholders. Do we need to create classifications of user?
- **Investable –** Prescription provides certainty to investors. So if there is a shift to a 'principles-based' approach, it is important to avoid creating new financing risk due to vagueness of requirements.
- **Cooperation between code administrators –** Code administrators and managers tend to work on individual codes. It would be helpful if there is more cooperation between code administrators to look across codes. With clarity on the specific objectives of each code and who is responsible for what. However, might competition between code bodies be a challenge to overcome?
- **Transition –** It was suggested that transitioning to new code governance structures would be like 'fixing an aeroplane whilst flying.' Do we therefore need to set-up a new structure and transition codes piece by piece?
- **Evidence based modification –** should an order of code reform be established based on, urgency, importance, speed, and impact. Who decides what gets taken forward? A sandbox may efficiently test if a modification looks useful, will work, and worth taking forward. But a gap between sandbox and business as usual will need to be bridged.

There was general agreement on these principles of: code not contract, open governance, clear purpose, simple, accessible, consistent, consolidated, improved stakeholder engagement (particularly for end-consumers), agile, digitised, investable, and greater cooperation between code administrators

1. Power Responsive work update

Adam Sims (Power Responsive Manager) noted that the Power Responsive Annual Report has been launched and thanked Steering Group members for their input. The customer snapshot will follow shortly.

NG ESO hosted the Power Responsive Executive Dinner on 30 May 2019 to re-invigorate commitment. The Power Responsive Summer Event is planned for 26 June 2019. The next Steering Group meeting takes place on 4th September 2019.

Possible discussion topics include: settlement reform and customer impacts; whole system operation; and a 'deep-dive' into demand side flexibility from energy storage. Steering group members were asked for input on future discussion topics, they expressed a preference for two topics and a more structured discussion, with opening presentations.

2. Any other business

There was no other business.

Attendees

Name	Company	Sector representation
Cathy McClay	National Grid SO	Chair
Benedict Eyre-White	BEIS	Policy & Regulation
Nikki Duggan	BEIS	Policy & Regulation
Louise van Rensburg	Ofgem	Policy & Regulation
Colm Murphy	National Grid ESO	Electricity System Operator
John Twomey	National Grid ESO	Electricity System Operator
Andrew McKenna	Northern Powergrid	Distribution Network Operator
Roger Hey	Western Power Distribution	Distribution Network Operator
Fiona Navesy	Centrica	Large Supplier
John Prendergast	RES	Renewable Generation
Jo Butlin	EnergyBridge	Market Commentator
Justin Andrews	Elexon	Electricity Market
Alina Bakhareva	Elexon	Electricity Market
Eddie Proffitt	MEUC	I&C (industry)
Richard Eaton	Aggregate Industries	I&C (industry)
Kate Beckingham	Crown Commercial Service	I&C (public)
Alastair Martin	Flexitricity	Aggregator
Jonathan Ainley	KiWi Power	Aggregator
Eamonn Bell	GridBeyond	Aggregator
Judith Ward	Sustainability First	Secretariat
Clare Dudeney	Sustainability First	Secretariat
Adam Sims	National Grid ESO	Secretariat
Adrian Sellar	National Grid ESO	Secretariat
Elaine Baker	National Grid	Guest