

Energy market investigation

Codes

4 March 2015

This is one of a series of consultative working papers which will be published during the course of the investigation. This paper should be read alongside the updated issues statement and the other working papers which accompany it. These papers do not form the inquiry group's provisional findings. The group is carrying forward its information-gathering and analysis work and will proceed to prepare its provisional findings, which are currently scheduled for publication in May 2015, taking into consideration responses to the consultation on the updated issues statement and the working papers. Parties wishing to comment on this paper should send their comments to energymarket@cma.gsi.gov.uk by 18 March 2015.

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Summary

1. The purpose of this working paper is to consider the extent to which the system of code governance might act as a barrier to entry and to pro-competitive innovation and change.
2. The main sources of information for this working paper are the Office of Gas and Electricity Markets (Ofgem), the Department of Energy and Climate Change (DECC), Elexon, Xoserve and Cornwall Energy websites; hearings with various participants; responses to issues statements; and Ofgem code governance submission to the Competition and Markets Authority (CMA).
3. We intend to explore these arguments further in the course of our investigation. In this working paper, as a first step for our analysis, we consider the following high-level questions in relation to the codes that govern behaviour in the energy sector:
 - (a) Is the system of electricity codes unnecessarily complicated?
 - (b) Are the code modification processes accessible and timely?
4. We are interested in assessing whether the behaviour of those with code-making powers can be expected to lead to outcomes that are good for competition. We are minded to investigate whether there are some features of the system of governance that may make it work against the interests of competition.
5. We welcome views on the issues set out in this working paper.

System of code governance

6. Energy licensees are required to maintain, become party to, or comply with certain industry codes in accordance with the terms and conditions of their licences. In general, the industry codes are detailed multilateral agreements that define the terms under which the industry participants can access the electricity and gas networks, and the rules for operating in the relevant markets.
7. Most codes designate a private entity (which may or may not be a party to the code) as code administrator and set up a panel (or executive committee), composed of stakeholders' representatives (for instance industry participants,

regulators, or consumer representative bodies), to carry out some key functions (eg keeping the code under review).¹

8. Originally codes were considered part of industry 'self-governance', with amendments being proposed by certain industry participants (such as generators, transmission system operators, distributors and/or suppliers, and/or the relevant panels),² and Ofgem playing only a subsidiary role of approving amendments to the various codes (as it did with the majority of them).
9. In November 2007, Ofgem launched phase 1 of its Code Governance Review (CGR) following its observation that there had been a series of changes to the regulatory and market environments in recent years.³ After two years of consultation, Ofgem concluded in March 2010⁴ that there were two main deficiencies with the code arrangements as they stood at the time:
 - (a) The code governance arrangements incorporated an unnecessary amount of barriers and red tape.⁵
 - (b) The code modification arrangements failed to support large scale and complex change.
10. A second phase of the CGR was launched in 2012.⁶ The main results of these two phases of the CGR were:
 - (a) the introduction into industry codes of a system of industry 'self-governance' (and fast-track self-governance) to handle minor modification proposals;
 - (b) the creation of the Significant Code Review (SCR) scheme so as to allow Ofgem to take the lead on complex code modifications; and

¹ We note that certain parties attend panel meetings as observers without voting right (eg Ofgem).

² This only applies to certain codes (eg the Balancing and Settlement Code (BSC)).

³ Ofgem specified several motivations for the CGR, including that: (a) its powers and duties had been changed by the Energy Act 2004 (such as duties to regard better regulation and sustainability); (b) certain of its decisions were made appealable to the Competition Commission; and (c) the general nature of the energy market had changed due to many smaller entrants. See Ofgem's *Code Governance – Review Final Proposals*, 31 March 2010.

⁴ See Ofgem's *Code Governance Review – Final Proposals*, 31 March 2010.

⁵ For instance, Ofgem cites the lack of a common, accessible and user-friendly template for raising modifications proposals across codes. See Ofgem's *Code Governance Review – Final Proposals*, 31 March 2010.

⁶ See Ofgem's *Code Governance Review (Phase 2) Final Proposals*, 27 March 2013.

- (c) the establishment of a Code Administration Code of Practice (CACoP)⁷ in order to provide a consistent system and standard of governance across all the industry codes.⁸

Unnecessary complexity of electricity codes

11. There are seven codes in electricity, each with different administration and governance arrangements:
 - (a) The BSC, which contains the rules and governance arrangements for the balancing mechanism and settlement. Its overarching purpose is for security of supply. The balancing mechanism provides a means by which National Grid Electricity Transmission plc (NGET) can buy or sell additional energy, close to real-time, from generators, suppliers and/or distributors, to maintain an energy balance and deal with operational constraints on the national electricity transmission system. Elexon administers the BSC.
 - (b) The Connection and Use of System Code (CUSC), which sets out the principal rights and obligations (including charging methodologies) concerning connection to and/or use of the national electricity transmission system by generators, suppliers and distributors. It is administered by NGET.
 - (c) The Distribution and Connection Use of System Agreement (DCUSA), which sets out the principal terms (including charging methodologies) regarding connection to and use of the electricity distribution networks by generators, suppliers and distributors. It is administered by DCUSA Ltd, an industry joint venture between DCUSA signatories.
 - (d) The Grid Code (GC), which specifies technical requirements for connection to, and use of, the national electricity transmission system by generators, suppliers and distributors. It is administered by NGET.
 - (e) The Distribution Code (DC), which covers the technical aspects and day-to-day procedures that govern the relationship between distributors and users of the distribution system. Its content overlaps to some extent with the DCUSA and the GC. It is administered by the Energy Networks Association.

⁷ The [current version](#) (3) is dated 22 January 2014.

⁸ It sets out 12 high-level principles, which Ofgem has divided so that the first four principles concern general code administration and the remaining eight principles concerning the process of code modification.

- (f) The System Operator/Transmission Code, which defines the relationship between NGET and transmission owners. It is administered by NGET.
- (g) The Master Registration Agreement (MRA). The MRA sets out the terms for the provision of metering point administration services and the procedures relating to the change of supplier to any premises or metering point. Suppliers and distributors must comply with its terms. It is administered by the MRA Service Company, a joint venture owned by the signatories to the MRA.
12. In addition, electricity suppliers must comply with the Smart Energy Code (SEC), 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 (GB). It is administered by Gemserv.
13. The codes are very detailed and complex which makes them voluminous. For example, the BSC runs to 870 pages, CUSC 580 pages and DCUSA 899 pages. By comparison, the Electricity Supply Standard Licence Conditions are 433 pages long. Overall for gas and electricity there are 11 different codes and a further six codes for renewable schemes operated by Ofgem E-serve. Although the codes do have some similarities, they each have separate funding arrangements, credit requirements, rules, governance and reporting arrangements.
14. In its review of credit and collateral in the GB energy markets Cornwall Energy noted that the credit arrangements were particularly costly for smaller market participants.⁹
15. Cornwall Energy found that credit arrangements were set out in a number of codes, regulations and laws, with different governance bodies. There were over 30 bodies or business units across a multitude of different companies involved in the processes for modifying, administering and implementing the credit arrangements in the GB energy markets.
16. Cornwall Energy also highlighted that no two codes were identical in their credit and collateral rules although there were some similarities in principles in areas such as balancing or transmission and distribution (reflecting Ofgem's best practice guidelines). The rules and procedures for administration were subject to continual change through modifications driven by industry, government or governance authority. Cornwall Energy submitted that it was difficult for new entrants accurately to assess the implications of credit

⁹ DECC, (2014) [Credit and collateral in the GB Energy Markets](#), Phase 1 Volume 1.

arrangements on the cost of new entry, and that changes can have different distributional impacts that are difficult to quantify.

Views of the parties on complexity

17. In the State of the Market Assessment,¹⁰ concerns were raised that the requirement on suppliers to be able to comply with detailed industry codes involve upfront costs – although Ofgem has taken steps to try to reduce these.
18. The energy industry is heavily regulated and all suppliers face the cost of monitoring changes in government policy, regulation and industry code developments. While this regulatory environment is a cost of doing business applicable to all suppliers, the fixed costs of compliance are more of a burden for new entrants and smaller suppliers with smaller customer bases over which to spread these costs. Further costs are involved if a supplier wishes to try to influence any such changes.
19. Elexon, in its response to the market investigation reference consultation, said that the complexity and the number of industry codes were harming competition:

We believe the number of codes is excessive and using multiple delivery bodies inevitably results in differing practices. There is an opportunity to merge and rationalise delivery of these codes, systems and services. This will remove potential barriers to competition and create efficiencies in operation of the market which will ultimately benefit consumers and competition.¹¹

Elexon broadly reiterated this view at its hearing.

20. Elexon has taken steps to guide entrants and other industry participants through the complexity by offering free training on the BSC.¹² It also assigns an operations support manager to every company to give advice through the process.
21. Elexon also suggested in its response to our Issues Statement that competition in the energy markets could be improved, by:

¹⁰ Ofgem, (2014) [State of the Market Assessment](#).

¹¹ Ofgem, (2014) Elexon's response to [Consultation on a proposal to make a market investigation reference in respect of the supply and acquisition of energy in Great Britain](#).

¹² Pursuant to Principle 1 of the CACoP (see paragraph 33 below), it is a duty of code administrators, such as Elexon, to provide support to code signatories.

- (a) reducing the complexity of industry codes and agreements and thereby significantly reducing the cost of participation and compliance;
 - (b) improving the market entry experience for new licensees through a simpler market entry process, building upon the improvements and shared approach developed by Elexon for BSC users; and
 - (c) reviewing the reporting obligations across industry and avoiding unnecessary duplication of data provision thereby reducing the costs and burden of reporting and monitoring.
22. Some smaller suppliers have suggested that they may post more collateral than they need to because of the existence of many fragmented credit arrangements, on the basis that it is hard to forecast how much collateral will be needed under any one code, and the consequences of being in breach of collateral rules can be significant. A risk averse supplier may therefore err on the side of over-estimating its collateral needs on each code. A unified approach would allow potentially offsetting movements in required collateral to be reflected in smaller 'safety buffers'.

Further work on complexity of electricity codes

23. We are interested in exploring if there are aspects of the electricity code structure that makes operating within multiple codes unnecessarily complex and if this acts as a barrier to entry or to innovation.
24. We would welcome views and evidence on the costs and complexity imposed by operating with multiple codes and whether this acts as a barrier to entry or to innovation.

Is the process for modifying electricity or gas codes open and timely?

What are the code modification procedures?

25. Currently, each industry code has its own modification procedure, though there are a number of common elements (eg industry consultation) across the modification procedures set out in each code.
26. As noted above, the system of code governance places the onus on the industry to raise, develop and assess code modifications, while Ofgem has a limited role in this process. These code modifications are quite frequent, in practice. For instance, in the last 14 years, there have been approximately 320 BSC modifications raised.

27. Ofgem's CGR measures (ie the introduction of self-governance and the SCR scheme as well as the establishment of the CACoP) aimed at increasing the harmonisation of the modification procedures by strengthening and expanding the common elements. For instance, the CACoP set out an indicative, non-binding, timetable suggesting that the modification process should be completed in a year. We note however that, to date, implementation of the CGR measures has been piecemeal.

Are the modification processes open?

28. We understand that driving a modification through the modification process set out by any of the codes (whether initiated by industry participants or directed by Ofgem under the SCR process) is typically very resource intensive. For example, Ofgem has estimated that there are around 150 industry panel-type meetings per year,¹³ and on average, each modification proposal may require around four working groups¹⁴ (more complex changes will require significantly more).
29. Smaller suppliers submitted that they felt disadvantaged in the process. They argued that incumbent suppliers had far superior knowledge and experience of how modifications were run and that the incumbents had greater resource to devote to various workgroups. Therefore the smaller suppliers had to 'choose their battles' carefully as they did not have the resources to be involved in every modification or even to suggest modifications themselves.
30. First Utility submitted that it had only recently started to gain traction in some code modification processes as they required significant resources, but that it could not match the incumbents. First Utility also highlighted that the costs of regulatory rules and programmes represented uncontrollable costs in an increasingly fixed tariff market.
31. Ecotricity submitted that it had not yet proposed modifications to any codes because of resource constraint.
32. Co-op Energy submitted that putting forward a modification, or participating in a modification process, required a significant amount of resource, which was completely disproportionate to new entrants. It said that new entrants did not realistically have the resource to influence or shape code modifications.
33. A number of smaller suppliers also highlighted a concern that codes governance (both for electricity and gas) was favourable to the incumbent

¹³ This is an indicative figure based on 11 gas and electricity industry codes and agreements which have monthly Panel and/or Change Board meetings.

¹⁴ This is an indicative figure, based on a sample of 25 modifications across 5 industry codes.

suppliers. They submitted that working groups and, to some extent, code panels, that were responsible for some key functions under the codes (eg keeping them under review), were made up of individuals who were representing the Six Large Energy Firms, and that this might make the codes governance process biased.

34. Ofgem submitted that the industry-led approach to code governance was appropriate for delivering incremental, non-contentious changes to operational procedures, but was not suited to delivering significant cross-code reforms.

Are the modification processes timely?

35. It has been put to us that the modification processes (whether initiated by industry participants or by Ofgem under the SCR process) may not be efficient in delivering modifications which benefit consumers.

36. Ofgem highlighted that it had no general power to change the codes directly:

We face significant difficulty in driving through change where there is industry opposition through a lack of incentives for industry to engage in the change process and cooperate with us in delivering timely and beneficial change in consumers' interests.

We are concerned that there is a lack of co-ordination between industry parties which can hinder the timely consideration of code modifications, the consideration of cross-code issues and delay the realisation of benefits for consumers. Our concerns are heightened in the context of an evolving industry, in which the volume and pace of change is increasing as there is a need to deliver major reform in the coming years. For example to realise the full benefits of smart metering, including changes to allow more innovative services and much faster switching, will require significant cross-code modifications.¹⁵

37. We are minded to investigate whether the modification processes set out by each code (whether initiated by an industry participant or by Ofgem under the SCR process) are too slow. We have been told that some participants might prefer to keep things as they are and generally resist change. We will investigate whether these modification processes might give these participants the means to slow down the processes, for example by raising spurious additional modifications.

¹⁵ Ofgem, (2015) [Code of Governance submission to CMA](#).

38. We note, in addition, that Ofgem told us that the SCR process did not necessarily make the modification process faster: 'Experience has shown the SCR process can take a long time, and whilst we can direct the change to be raised following an SCR, it is ultimately for the industry to develop and deliver it under the 'standard' code change process.'
39. These concerns can perhaps be best illustrated by considering specific examples.
40. We considered briefly three case studies: first the attempt to introduce more locational price adjustments in the wholesale electricity market; second proposal to modify the BSC 'P272', which concerned the ex post half-hourly settlement of larger non-domestic electricity customers; and third Project Nexus, which concerned the modernisation of the gas settlement system [see the 'gas and electricity settlement and metering' working paper]. We will further investigate whether these (and other) examples are evidence of features that may affect competition.

Attempt to introduce locational price adjustments

41. The 'locational pricing' working paper contains a brief history of attempts to introduce wholesale price adjustments for transmission losses. There have been at least two attempts to achieve this through code modifications under the New Electricity Trading Arrangements. Both attempts involved significant amounts of analysis of the issue, and aggregate net benefits were anticipated from the proposed modifications. However, they did not succeed. We are interested in understanding whether the system of code governance might have been a reason for this or whether there were other reasons not to introduce the proposed changes.

P272 modification proposal for mandatory half hourly settlement for larger non-domestic electricity customers (profile classes 5 to 8)

42. Since 6 April 2014, electricity suppliers have had an obligation to supply customers in the profile classes 5 to 8 (larger non-domestic customers) through an advanced meter capable of recording half hourly (HH) consumption data. However, initially, there was no requirement in the BSC for suppliers to settle customers in these profile classes with advanced meters using their HH consumption data.¹⁶ Smartest Energy, an independent

¹⁶ Details of the settlement process and the obligation to supply larger non-domestic customers through advanced meters are contained in the gas and electricity settlement and metering working paper.

supplier, raised a proposal (P272) to the BSC panel on 20 May 2011 to introduce into the BSC ex post HH settlement for profile classes 5 to 8.

43. A workgroup was set up by the BSC panel in June 2011 which carried out an industry impact assessment and held two workgroup assessment consultations. On 12 January 2012 the workgroup stated that it was supportive of P272, but concluded that until the issues with Distribution Use of System charging were resolved, implementing P272 would not be viable.¹⁷ It recommended that P272 should be rejected.
44. Ofgem was concerned¹⁸ that it was difficult to assess the costs and benefits of P272, which in turn would make it difficult to make a determination on the modification. The workgroup subsequently undertook a cost-benefit analysis of P272, during which two further consultations were issued. On 8 November 2012 the workgroup continued to recommend that P272 should be rejected.
45. The BSC panel made its final recommendation that P272 should be rejected at its meeting on 13 December 2012. Ofgem then undertook its own regulatory impact assessment, under which it noted a 'minded-to' position to approve an alternative modification.¹⁹
46. On 6 February 2014, Ofgem wrote to the industry²⁰ setting out its concerns about the progress of modification P272. It was 'concerned by the lack of coordination between industry parties – suppliers and electricity distribution network operators [...] alike – which is hindering the timely consideration of code modifications, the consideration of cross-code issues and delaying the realisation of these benefits for consumers.' And it was 'disappointed that industry has not progressed the changes necessary'. Finally Ofgem expected 'that industry, whether suppliers, network companies or any other market participants, should not take actions through code modifications processes that delay the realisation of consumer benefits. Moreover, market participants must commit sufficient resource to undertake robust and timely assessment and implementation of modifications.'
47. On 6 February 2014, Ofgem directed the BSC panel to consult on a revised proposed implementation date for the P272 Alternative Modification and on 11 September 2014 the BSC panel agreed the revised proposal. Finally, on 29 October 2014 (nearly three and a half years after the initial modification

¹⁷ See Elexon, *Ofgem concerns regarding P272 and P300*, 10 July 2014.

¹⁸ Ibid.

¹⁹ Ofgem, *Balancing and Settlement Code (BSC) P272: Mandatory half-hourly settlement for Profile Classes 5-8 – draft impact assessment for consultation*, 29 October 2013.

²⁰ Ofgem, *Letter on industry role in creating market conditions necessary to support realisation of the benefits of smart metering*, 6 February 2014.

proposal) Ofgem approved the P272 Alternative Modification for implementation on 1 April 2016.

Project Nexus

48. The replacement of UK Link and the update of the gas settlement system is called Project Nexus.²¹ This is a long running project which was launched in 2008. It will introduce a new IT system to handle gas settlement. It is envisaged that it will enable the use of smart meter data for settlement.
49. Progress on Project Nexus was highlighted by Ofgem in an open letter on 31 July 2012:²² 'While the work has been constructive, progress has been slow and gas settlement systems have remained largely unchanged since the start of domestic competition.'
50. When Xoserve started consulting on the strategic service requirements prior to the design and development of replacement systems, it was originally envisaged that the changes would be introduced before the end of 2013. Protracted industry discussions conducted under UNC governance about service requirements, including uncertainties about the potential impacts of the requirements of the Smart Metering Implementation Programme, have caused these timescales to be extended. Our current understanding is that implementation of Project Nexus is scheduled for October 2015.
51. Ofgem has recently written to the industry stating that it is concerned that the 1 October implementation date is at risk. It is therefore taking steps to strengthen the governance, management and assurance of Project Nexus. Ofgem will procure on behalf of industry, a project and assurance manager to support a new industry steering group with the mandate to make decisions or recommendations on Project Nexus implementation issues.²³

Initial assessment on openness and timeliness of code modification process

52. The above examples illustrate that modifications have not, in these particular cases, followed the indicative timetable and have taken significantly longer than the one year envisaged.
53. We intend to investigate whether the governance of code modification processes, for electricity and/or gas, is failing to ensure that reforms that

²¹ Further details of these proposed changes are set out in the settlement and metering working paper.

²² Ofgem, [open letter to gas distribution networks](#), 31 July 2012.

²³ Ofgem, [Project Nexus – Strengthening project governance, management and assurance](#), 6 February 2015.

would deliver benefits to consumers are implemented in a timely and efficient manner.

54. We are, in particular, concerned that certain market participants may find it difficult to fully engage with the codes, and that the governance processes might therefore operate to favour the incumbent industry representatives. In particular, we intend to investigate whether the code governance (and modification) processes may provide the incumbent industry representatives with the means to delay proposals that would deliver benefits to consumers and/or competition, but which may not be in their individual interests. If so, this could be a barrier to entry and/or expansion, and to innovation. We would welcome further views on these questions.
55. Industry self-regulation has the advantage that rules are created by those who hold the necessary information. However, it is important that the interests of those with code-making power be aligned with the interests of consumers, the whole industry, and the wider economy. Too much power in this process for incumbents may run the risk of inhibiting innovation, the adoption of innovative ideas and may ultimately harm consumers.
56. We intend to investigate whether Ofgem's CGR has solved or reduced the concerns outlined in this working paper (or whether it can be expected to do so in the future).
57. We recognise that there is an important balance to be struck between providing companies with a degree of insulation from regulatory risk on the one hand, and allowing for pro-competitive innovation and change on the other.
58. At this stage, we have not formed a view as to whether the current arrangements strike the right balance in this regard, and would welcome the views of a wide range of parties on this matter.