xoserve

MOORHOUSE
AN EXPLEO COMPANY

AN INDUSTRY PERSPECTIVE ON ENERGY CODE REFORM

xoserve

MOORHOUSE
AN EXPLEO COMPANY

AN INDUSTRY PERSPECTIVE ON
ENERGY CODE REFORM

Contents

Please click to navigate to any section

Foreword

"Code Reform" can appear to be a rather dry subject, yet in fact is a critical strategic enabler to the development of energy markets, in order to deliver accelerating progress towards net-zero; whilst fairly protecting the interests of consumers.

Over an extended period, the Government and Ofgem have consulted on these Reforms, and a clearer picture is emerging of key features of the Reforms, and the role of Code Manager.

At Xoserve, we strongly support the Reforms, and as the Gas Industry's Central Data Service Provider, we have a clear interest in the Reforms being successfully delivered, and want to play our part in shaping the thinking and planning into realising the objectives of Code Reform.

We have partnered with Moorhouse to develop this paper, describing the key features that a Gas Network Code Manager should have. We have consulted a wide range of stakeholders in developing the themes we describe. We think there are a number of features of the gas market that mean a bespoke, sustainable approach to the design of a Gas Network Code Manager is merited.

The paper represents "An industry view" on what a Gas Network Code Manager should do. Details on how a Code Manager should be implemented and operate is for a future paper, and we will continue to respond to upcoming consultations from Government and Ofgem.

A key message is that the early appointment of a Code Manager for Gas is needed in order to allow it to commence planning for the implementation of a Code Manager, and that resolving the ownership and licensing arrangements of existing Gas industry Central Bodies is a necessary early step on the Code Reform journey for the industry.

Introduction

A Gas Industry response to the introduction of Energy Code Reform

Whilst there has been considerable engagement and consultation over the timing and form of Code Reform, the drivers for it have remained clear: the need for the energy industry to manage change more efficiently to benefit consumers, accelerate the pace of change, and support the fair transition to Net Zero.

It is fair to say that throughout this period a broad range of views have been put forward, including some who do not agree with key aspects of the proposed reforms.

Nevertheless, with the implementation of Energy Act 2023, recent Ofgem consultations, and the election of the new Government, it seems clear that Energy Code Reform will progress. We think that only transformative change can deliver on the ambitions of Code Reform, to bring forward a decarbonised, resilient energy system fairly and equitably.

As such, Xoserve in partnership with Moorhouse, has undertaken research with our stakeholders into the proposed Energy Code Reforms, and we have constructed a suite of proposals designed to deliver the changes required to meet these ambitions.

The proposals in this paper are high level and thematic in nature. We seek to generate consensus on the Strategic Case for a Code Manager for Gas, and what a Code Manager should do. Detail on how such a Code Manager could be established, together with an implementation plan is a separate consideration.

The case for Code Reform

It is worth rehearsing the key objectives of Code Reforms, as described by Ofgem[1] :

The Reforms aim to create a framework that:

- is forward-looking, informed by and in line with the government's ambition and the path to net-zero emissions, and ensure that codes develop in a way that benefits existing and future energy consumers
- is able to accommodate a large and growing number of market participants and ensure effective compliance
- is agile and responsive to change whilst able to reflect the commercial interests of different market participants to the extent that this benefits competition and consumers
- makes it easier for any market participant to identify the rules that apply to them and understand what they mean, so that new and existing industry parties can innovate to the benefit of energy consumers

Central to this future framework is the newly imagined role of "Code Manager". In our view, this is a pivotal, demanding and catalytic role. It is a new role, and whilst we acknowledge that draft license conditions have been shared, no template exists as to what a Code Manager is, or what it will do and how it will deliver against those license conditions. Looking across the various energy codes, and central bodies that operate in the market, there are a range of approaches and implementations of code administration and systems delivery, with some being more integrated than others. However, it is our view that the objectives as described above, demand a more transformational and integrated approach in contrast to the present arrangements, and particularly in the gas market.

Ofgem have laid out a phased approach to the introduction of Code Managers across the industry codes spanning electricity, gas, smart, and wholesale and retail markets. The challenges for the codes in scope are very different in each space.

Some codes are already governed in a way that is recognizable as having elements of the Code Manager model. Others are linked in a variety of ways and are inter-dependent. Some codes are relatively short, technical and concise. Others are lengthy, complex and multidisciplinary. There is a range in the progress towards digitisation across codes, and the governance is different for each.

1 www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/energy-code-reform

The current regulatory landscape for gas

In gas, there are two main codes – the Uniform Network Code (UNC) and the IGT UNC. Relatively speaking, these codes are large, complex, and multi-disciplinary in comparison to other codes.

These are administered by the Joint Office of Gas Transporters (Joint Office) and Gemserv on behalf of the IGTs respectively. Between them they cover the equivalent of a much larger number of codes for electricity. Alongside, but separate from these codes are discrete governance arrangements for the Central Data Service Provider, delivered by Xoserve under the Data Services Contract (DSC) and on a not-for-profit basis.

Whilst performing different roles, there are many similarities between the way in which the UNC and IGT UNC are governed and the IGT UNC is heavily linked to many of the UNC provisions. Both UNC and IGT UNC Code Administrators (JO and Gemserv) ascribe to the Code Administrators Code of Practice (CACoP) which aims to provide consistency across the energy industry's code administrators and managers.

The UNC and IGT UNC are complex documents comprising over 100 PDF documents between them. The UNC has been modified and adapted over decades, significantly increasing its complexity and size, and the IGT UNC includes 15 individual network codes each detailing specific requirements for independent gas transporters. It is difficult for existing parties to easily decipher the requirements of the codes and their complexity makes it difficult for any market entrants to identify their responsibilities. The digital maturity of both codes is low and in need of investment to improve digital maturity and accessibility.

The gas system's separation into multiple and stove-piped governance structures via discrete central bodies means that the industry lacks a single, central entity responsible for driving change impartially. This leads to several issues:

- **Inconsistencies:** Each overseeing entity may have different priorities, processes, and interpretations of regulations, resulting in fragmented decision-making and inconsistent rule application.
- **Communication Challenges:** Stakeholders must coordinate across multiple organisations, which slows down information flow, complicates collaboration and can result in duplication of effort.
- **Potential Conflicts of Interest:** Overseeing entities may have vested interests such as system ownership or profit generation requirements that do not align with broader industry or consumer needs, leading to decisions that may favour certain parties over others and often leads to indecision and slow industry progression.
- **Limited Role of Code Administrators:** The capacity of code administrators to offer critical friend support in the gas sector is limited, budget constrained, and often requiring the outsourcing of capabilities which risks loss of sustainable expertise.

In both UNC and IGT UNC, changes to the codes are made through a modification process with a panel representing both the Industry and the Consumer. For material changes, Ofgem decides on the implementation of each modification with due regard to the panel's advice.

The modification processes can be time-consuming, requiring multiple industry meetings over extended periods of time to reach a panel recommendation to Ofgem. The current processes mean that all code parties can raise alternatives to any proposal for consideration alongside an original modification proposal. This can result in elongated discussions and in one recent example, up to 10 alternatives being raised for consideration. Each modification is considered independently, although implementations are often aligned where central system changes are needed. The coordination of central system changes are managed through the Data Services Contract (DSC) Change Management Committee, administered by the Joint Office. The prioritisation and delivery of modifications often appear to be driven by the technical requirements of the CDSP rather than their impact on strategic objectives and their relative benefit to consumers. Overall, we perceive that this leads to a lack of focus, and dissatisfaction in the pace of change amongst industry stakeholders.

The number of people in the industry who truly understand the codes, is small, and diminishing, representing a strategic risk to the industry as a whole. In the gas market, many code parties no longer participate in the code and systems governance arrangements – a trend that we see accelerating, with lack of quoracy being an increasing risk.

The current governance arrangements were predicated on broad industry participation in committees and panels – but we see these now potentially failing, leading to an undesirable state where an increasingly concentrated minority of code parties propose future changes. This runs an attendant risk of modifications driven by individual commercial agenda. We think the lack of accessibility to the codes is a significant, and growing problem which requires urgent attention.

What difference a Code Manager will make - ten point agenda

At its core, our proposal is to move from a situation where the gas market codes are widely perceived as a blocker to change, to become an enabler to deliver the future priorities. We propose that a single integrated Gas Network Code Manager is created (a GNC covering UNC, IGT UNC and CDSP) and performs the following key roles:

1. GNC rules and CDSP processes captured in a single gas industry business process architecture framework

The architecture framework will allow parties to access the GNC in a new, transparent and systematic way, which allows linkages between elements of the code to be understood more easily. The architecture framework will also allow modern tools and technology to be used to manage the code into the future, improving efficiency and accessibility. The architecture framework will describe both the "As is" state, but also future "To be" states; leading to the development of roadmaps which will be transparent to all. The architecture framework is a key facilitator to code merger between UNC and IGT UNC and would encompass the digital systems estate holistically, building on work already underway in Xoserve as part of Project Trident[2].

2. Improving accessibility to the Code

The GNC should be progressively rewritten into plain, accessible language. Simplification should include the ability to remove redundant or conflicting clauses in the existing codes. We should seek to reduce the size of the existing code. Ultimately, the aim is to make the process of onward development of the code simpler, with greater use of technology which will reduce costs. However, we note that the industry is complex, and therefore, care will need to be taken with the process of "simplification"

Improved accessibility to codes also lowers the barriers to entry for new market participants, who could bring innovative new approaches, which the Code Manager should seek to facilitate.

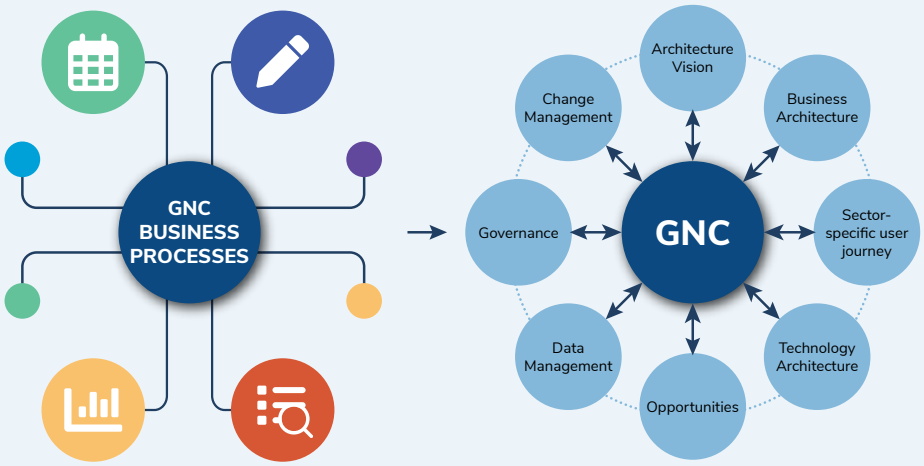

Figure 1: GNC rules and CDSP processes captured into a single gas industry business process architecture framework

2 www.xoserve.com/products-services/data-products/uk-link-system/project-trident

3. Decision-making on the implementation of GNC Modifications

The Code Manager must have the vires to make decisions, balancing the views of the industry with those of consumers, NESO and Ofgem's strategic direction statements. Whilst it is clear that Code Panels will no longer exist in their current form, there must be a mechanism that ensures the views of the industry, the consumer (via representation), the regulator and NESO are understood and considered in the adoption of any modifications to the codes being managed.

The "Stakeholder Advisory Forum" is the vehicle through which the Code Manager will consult in respect of its decisions, and the effectiveness of this forum is critical to the future success of the Code Manager and wider code reforms. Whilst we welcome the introduction of strategic direction from Ofgem and NESO becoming a party to the code, it is essential that the views of industry continue to be clearly heard and considered carefully, especially the consequential impacts of proposed modifications. Many stakeholders we have consulted expressed concern about this point, we therefore propose that the SAF is clearly seen as an influential body, whose views are demonstrably considered by the Code Manager as modifications are developed. We believe that this will drive engagement amongst our industry stakeholders with the new arrangements.

The SAF should be designed in a way that encourages wide participation, giving all parties the chance to influence what is important to them and their consumer base. The GNC Code Manager should invest actively to drive engagement with parties to the code, as we want the new forum to be vibrant, and a source of innovation. We believe that innovation can and should be pro-actively fostered by the code manager; whether through the mechanism of a SAF, or through the establishment of wider channels of engagement, those we have consulted with remain resolute that the voice of the industry must be heard by the code manager in order to encourage continued participation in both the governance processes and the gas industry itself.

4. Developing future modifications as a portfolio for change.

The GNC Code Manager should develop a portfolio of modifications that is developed, and evolved from the annual Strategic Direction Statement from Ofgem, inputs and modification proposals from NESO, proposed modifications by GNC industry code parties, as well as the code manager itself (where there are no CM conflicts of interest). We envisage increasing levels of policy driven interventions from the regulator and government.

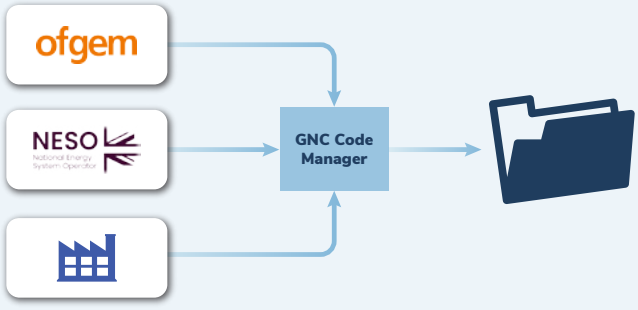

Figure 2: Developing future modifications as a portfolio for change

The portfolio will include prioritisation of modifications. Whilst we do not at this stage propose detailed prioritisation criteria, they should be informed by the architecture roadmaps, a thorough cost benefit analysis of proposed modifications, and contribution to advancing Net Zero and other policy objectives. Priority would naturally be given to those modifications that scored most highly against these dimensions. The Cost Benefit Analysis will be considered not just the direct cost of implementing a modification (eg on the CDSP) but costs from a "whole industry" perspective. The portfolio should also be programmatic in nature – so that all parties can see when modifications are programmed in for implementation. The Code Manager will need to have programme as well as architecture framework management competencies to deliver this.

5. Provision of a single legal function for the GNC

At present there are multiple providers of legal services in support of the codes and CDSP. There is a clear opportunity to optimise these arrangements, ensuring the consistent management of legal text in an efficient and cost effective manner. We anticipate that the process of prioritisation; building an architectural framework and use of technology together, should significantly reduce the costs associated with legal drafting of future code modifications - multiple re-draftings of modification legal texts are commonplace at present.

6. Cross-code coordination, collaboration and whole systems thinking

The demand for the whole energy market to synchronise its activities grows ever greater. With the introduction of NESO, consideration for whole system solutions that can deliver consumer benefit and net-zero requirements is imperative. The GNC Code Manager should not just present the views of the gas industry, but should consider the wider energy system impacts of any modification, and provide simplified consistent governance with the other energy code managers to enable joined-up decisions that minimise timescales for delivery of change and maximise the benefits to consumers and the industry. The GNC Code Manager should be an active and recognised contributor to this "whole systems" thinking, and should also be seen as a "thought leader".

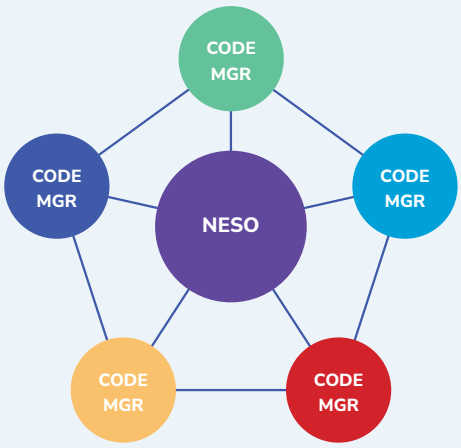

Figure 3: Cross code coordination, collaboration and whole system thinking

7. Catalyse and support research to support future code modifications

We see the opportunity for the code manager to act as a catalyst to deliver improvements in arrangements such as AUGE, UIG, PAFA and AQ to benefit the accuracy of settlement. We propose that the code manager brings together the relevant expertise to underpin future code modifications. The Code Manager should also participate in collaborative research projects including academia, NESO, Energy Systems Catapult etc.

8. Drive up data quality, integrity, accessibility, and interoperability of gas data

Data is critical to all aspects of the transformation to the future. It is a key reason why we advocate that the future GNC Code Manager should assume responsibility for the DSC and CDSP service provision. High quality data is critical to:

- Settlement and transportation invoicing accuracy
- Planning and modelling with DNs, and National Gas and now with NESO, but also research bodies
- Supporting policy interventions, including targeted support to vulnerable consumers
- Facilitating more efficient functioning of the market through improved insights, tool sets etc
- Improving consumer outcomes
- Supporting other parts of the energy ecosystem and central bodies

Our consultations show a widespread appetite for this theme. The GNC Code Manager should act as a "node" within the wider energy network, noting NESO's emerging role as the data systems' orchestrator. The GNC Code Manager should have a strong bias towards collaboration and should also seek to operate as NESO's "implementation partner" for strategic changes within its sphere of operation.

9. Integrated Code Manager

The GNC Code Manager should incorporate the services currently provided in respect of code administration and CDSP services in respect of both UNC and IGT UNC. We think there is strong interplay between the GNC and the digital systems that implement much of it, and significant cost benefits to be realised by such an integrated design featuring efficient use of shared services, and co-ordination of activities.

As with the Xoserve model, the code manager would not itself develop the digital systems in-house, but outsource to commercial organisations. The Code Manager should own the architecture framework we describe in this paper; have the capabilities to be an intelligent customer to competitively procure all the solutions and services it needs on a long term basis; and performance manage the performance of all of its suppliers. This outsourcing approach is designed to mitigate potential conflicts of interest in the code manager's decisions.

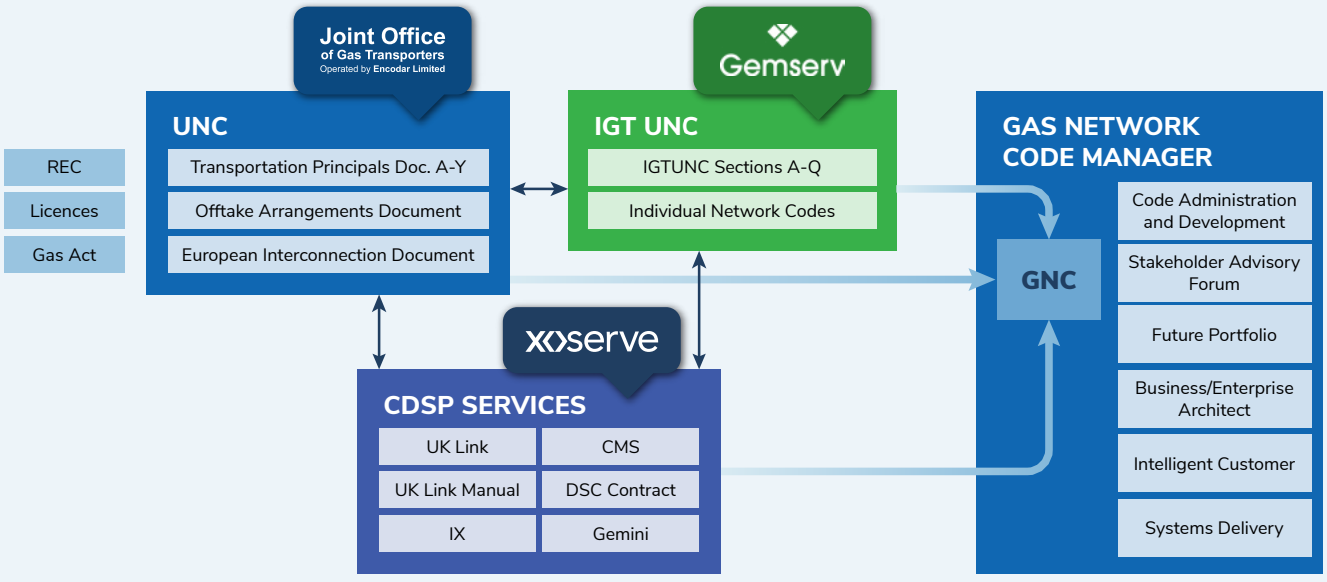

Figure 4: Integrated Code Manager

10. Ensure a sustainable centre of expertise for the gas industry as it evolves

Many we have consulted with have expressed concern regarding the loss of expertise and knowledge, particularly in understanding and accessing of the codes and central systems. Whilst there is a great deal of attention being given to decarbonisation of the electricity grid, it is nevertheless the case that in all future scenarios to 2050, that DESNZ, and NESO, predict gas as being part of the UK's energy mix.

To be sure, this will increasingly feature a range of gases, including potentially hydrogen blends, bio-gases and carbon capture / abatement technologies. The GNC Code Manager needs to both preserve the knowledge on how the existing arrangements work but also facilitate the development of the UK energy system. This may result in the development of new codes, and the GNC code manager should be proactive in supporting these. We propose that the GNC Code Manager would naturally develop the decarbonisation work that Xoserve has been developing with its industry partners in recent years.

We therefore advocate that the GNC Code Manager must take a proactive role in developing a new generation of people who want to work in the industry. To do this, the code manager needs to create an exciting agenda for change that will attract the future talent that is needed. This indicates the code manager should have an ambitious, broad range of workstreams, and be of sufficient size to create the "pull factors" needed to create a sustainable team of expert talent that will see opportunity for career progression. Cross industry secondments could also support this approach.

How should the GNC Code Manager be set up?

The following guiding principles should be built into the GNC Code Manager model to enable successful delivery of effective code manager services.

Empowered with the ability to raise modifications, make decisions and take actions which support industry change, focussing on benefits to the industry and the consumer. The funding and governance structures must be set up to enable this.

Expert-led, with its own gas industry subject matter experts who can undertake high quality development work and impact assessments independently, to inform decision making and speed up change development and adoption.

Independent from industry and its pressures allowing the GNC Code Manager to act in the interest of all parties, including the consumer in a balanced and transparent way. The GNC Code Manager will therefore need to be separate from industry participants and ownership and free from political constraints, allowing for independent operation.

Designed to avoid conflicts of interest. Whilst some have expressed concerns over conflicts of interest, we believe that the code manager can be designed to avoid these via:

- Independence of ownership and constitution of its Board
- Not-for-profit status, with no commercial interests or linkages to industry
- License conditions from Ofgem
- Transparency and independent audit of budget setting and key decision making

At Xoserve, we have been using this approach to budget setting with independent audit processes and information rules captured in code. We would propose extending this approach to independent audit into conflicts of interest to provide reassurance to all of the code manager's stakeholders. We would expect the board of the code manager to seek such independent assurance in respect of these matters.

Whether an existing organisation or a new entity is established and licensed:

- The Code Manager should bring together capabilities from existing bodies (Xoserve, Joint Office and Gemserv) under one corporate umbrella.
- The not-for-profit model and vires ensures that the primary focus remains on fulfilling the GNC Code Manager's purpose and objectives rather than generating profits or undertaking work outside of the scope of the code manager (scope creep).

- Budget setting should be the responsibility of the Code Manager Board, but should be developed through industry and stakeholder engagement, creating a fair and transparent view of required funds. This should be subject to an independent third-party audit to provide assurance that the budgets are fit for purpose.
- The code manager should be independent of both industry and government to balance the interests of both the industry and the consumer. The GNC Code Manager's license conditions should therefore be constructed so as to lead to the Gas Transporters being released of their current license responsibilities to provide code administration for the UNC.
- The ownership of the CDSP services, should be reviewed providing an opportunity to strengthen the Finance, Governance, Ownership (FGO) reforms Xoserve implemented in 2017.
- An independent third-party assurance should also be put in place to provide a compelling route for parties, the regulator and wider stakeholders to be confident that the code manager is delivering against its objectives and business plan.

If an existing body is chosen, this could represent a cost effective and easy way to introduce the GNC Code Manager, thereby benefiting from existing infrastructure and corporate shared services which could otherwise be expensive and time consuming to establish, requiring working capital injection to finance a new entity.

Chicken and Egg: What comes first – the Code Consolidation or the Code Manager?

There are four key stages to deliver the outcomes of Code Reform for Gas:

- The consolidation of UNC and IGT UNC into a single GNC
- The simplification of UNC and IGT UNC or the combined GNC they will form
- The digitisation of the UNC/IGT UNC or combined GNC
- The introduction of a GNC Code Manager

Our research has highlighted a variety of views as to how these events could be sequenced. Some believe that the early introduction of a gas code manager would better facilitate the work to simplify and then consolidate the two codes. Others believe that the current structures could be used to achieve simplification, and then consolidation could take place before a code manager is appointed. Irrespective of when the code manager is introduced, there are differing views on whether the codes should be simplified and then merged or vice versa. There are also differing views on whether the codes can realistically be simplified when the arrangements that they detail remain complex by design and necessity. However, there is strong agreement that improved accessibility and digitisation will bring benefits.

Whilst we are ambitious to play our part to drive the desired benefits of code reform, we must acknowledge that the current stove-piped gas governance arrangements and license conditions we described at the beginning of this paper impede progress. Amongst the central bodies, and their stakeholders (funders) there is no single, unified view as to the way ahead, and it is hard to see how the conditions can be created to make meaningful progress until the right governance structures are put in place.

Amongst our stakeholders, we believe there is the appetite to invest to deliver the benefits we describe in this paper, but overall there is also the feeling that the code manager needs to be appointed first, with the right agenda, in order to create the conditions for this investment. Building on the proposed draft license conditions and The Energy Act 2023 provisions we believe there is an emerging need to identify the codemanager ahead of licensing and implement transitional arrangements in readiness for licensing.

Conclusion

Code Reform is happening and, if executed well, will bring the benefits described in this paper. The gas industry, has at time struggled to view Code Reform and the Code Manager role as an opportunity, and how it could be introduced to realise the positive benefits we describe.

Nevertheless, our industry stakeholders identify with many of the themes we present here, and want a code manager that they can actively support and engage. We believe that a proactive, innovative, and consultative approach to the design, implementation and onward delivery of code management is essential. We think it is important that the industry does not perceive that code reform has been imposed on it; and seeks to achieve broad buy-in to the approach we describe.

The Code Manager must be an independent, impartial decision-making body with power to drive change to deliver Ofgem's strategic objectives and NESO's whole system planning. This will be uncomfortable at points, as the code manager will not be able to please all of the people all of the time. The Code Manager must always be alive to the impact of its decisions on consumer interests, and fairness as the energy transition to Net Zero gathers pace.

Nevertheless, Code Reform has been consulted on, at some considerable length through multiple stages. We believe the time has now come to move forward to purposefully implement code management to support the biggest transformation seen in the industry for many decades. The new Government's focus only amplifies this point, and is expecting us to do our part to support its objectives.

It is therefore our intent to continue to help shape Code Reform for Gas, seeking proactive ways to find improvements and solve the challenges facing gas market governance we described earlier. We believe the regulator is looking to the industry to come forward with its ideas, and we want to do our part to catalyse this, with an ambitious set of proposals.

The simplification, digitisation and consolidation of UNC and IGT UNC is an essential step to support the efficient delivery of future change. However, this alone is not sufficient.

The early appointment of a GNC Code Manager will allow faster progress to be made on the themes presented in this paper. We advocate for the establishment of the code manager at the earliest opportunity, in advance of an award of license, that would enable detailed and attractive implementation plans to be prepared. This enabling work specifically includes addressing the license and ownership arrangements in respect of the existing gas code bodies (Joint Office, CDSP), which will need time to be resolved.

We believe the introduction of a Code Manager, that develops and owns the architectural design for the industry codes into the future, will drive benefits through the adoption of coherent solutions across the gas landscape and the wider energy ecosystem.

Gas is likely to form part of the UK energy mix through to 2050. This is likely to increasingly feature blends of gases and abatement technologies. The challenges of achieving a fair transition to Net Zero are enormous, but we believe that moving forward with Code Reform through an empowered, ambitious Gas Network Code Manager can create a shared focus that benefits all of our stakeholders, and most importantly consumers.

xoserve

Lansdowne Gate, 65 New Rd, Solihull B91 3DL | 0121 229 2000

www.xoserve.com