



**ENABLING  
ENERGY MARKETS  
FOR NET ZERO:  
REFORMING CODE  
GOVERNANCE**

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# SUMMARY

Energy markets must adapt and reform to enable net zero. This paper presents Genserv's recommendations for early, no-regrets improvements to energy market governance to deliver the near-term net zero targets. It has been prepared with the support of Bob Hull, an independent consultant, who previously served in senior leadership roles with Ofgem, National Grid and KPMG.

## ENERGY MARKETS FOR NET ZERO

The December 2020 Energy White Paper<sup>1</sup> has set out an ambitious vision for the energy transition to reach net zero, while delivering affordable, secure energy to consumers. Electricity and gas markets will be at the heart of the transition, accommodating vast expansions in low-carbon energy production, and in the numbers of active market participants. If net zero and energy security is to be realised at least cost, then it will be critical to have well-functioning electricity and gas markets that can adapt to such a major disruption. The market rules (as set out in common industry codes) and their governance framework must drive the transition.

The key problems with market rules and governance are well understood: strategic direction setting, Code Manager accountability, independent decision-making, and code simplification must all be improved. Current proposals from The Department for Business, Energy and Industrial Strategy (BEIS) and Ofgem for clearer leadership of change envisage an institution being identified to provide strategic direction, undertaking code management responsibilities itself or by directing separate Code Managers. In the meantime, the existing governance regime continues to evolve and deliver market enhancements by Code Managers, such as digitalisation of the Retail Energy Code.

But governance and market reforms will be complex and will take time to implement. These reforms are taking place in an already changing institutional landscape. For example, Ofgem has recently proposed changes to Electricity System Operator (ESO) governance and for the development of Distribution System Operators, and Xoserve has created a new commercial delivery company.

<sup>1</sup> <https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future>

## THE NEED FOR EARLY ACTION

The energy transition is accelerating and there is a risk that market and governance reform cannot keep up, let alone be a driving force. Uncertainties about future market rules and governance risks are impacting investor confidence, putting 2030 decarbonisation and affordability targets at risk. While net zero targets are set for 2030 and 2050, action is needed for the much shorter investment lead-times e.g. to 2025.

The expected dramatic growth in distributed energy resources participating in energy markets, e.g. via millions of Electric Vehicles, will require a significant rethink of existing market rules and governance. For example, markets with many more participants and lower value transactions may drive the need for a new market compliance philosophy which is less rule-based. A risk-based and targeted approach which makes entry easier for market participants may be best, while still providing the necessary assurance of compliance with market rules.

In such a disruptive environment, there is a balance to strike between taking early action within the existing market governance framework and changing that framework so it will be fit for its future purpose. Currently, rule changes are often complex and take time to implement and there are few incentives for the governance regime to implement change quickly.

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## OUR PROPOSALS

There are several no-regrets initiatives that may commence in the short and medium term to help deliver the net zero policy goals. We hope these suggestions will contribute to the forthcoming BEIS and Ofgem consultation on the desired longer-term outcomes for the energy code framework. However, they can only be a partial solution – they will not be a substitute for fundamental institution and code reforms. Our suggestions are:

- 1. Strategic direction and co-ordination** – BEIS is expected to provide Ofgem with a Strategy and Policy Statement to help guide its independent regulatory decisions so they are consistent with net zero goals. A similar approach could be applied to code governance. Recommendations are:
  - ♦ **Strategic direction** - Ofgem should issue strategic guidance to each Code Panel and Code Managers to help guide their decision making, administration and compliance activities. This should have clear objectives for net zero, and also for improvements such as standardisation e.g., common data management principles for GDPR and Cyber.
  - ♦ **Strategic co-ordination** - Ofgem should lead senior-level strategic co-ordination across Code Panels and Code Managers to ensure effective collaboration. This could build on the existing Code Administrator Code of Practice (CACoP) arrangements.
- 2. Accountable and incentivised code management** – current governance structures often lead to weak accountability for performance. Recommendations are:
  - ♦ **Proactive governance** - Code Managers and Panels should proactively address controversial decisions and explore options to address future market changes.
  - ♦ **Reputational incentives** – Code Panels and Code Managers should regularly report on progress in complying with their strategic guidance.
  - ♦ **Financial incentives** - these should be introduced to incentivise Code Manager performance and accountability. These could target a range of performance measures, including stakeholder surveys, code modification timescales, and process delivery performance.
  - ♦ **Funding of innovation to improve performance** - Code Managers should be empowered to improve performance through funding of innovation initiatives, where funding may not be available under the current governance structure.
  - ♦ **Competitive tenders for Code Managers** - these should ensure clear accountability, performance requirements and efficient delivery. Some consolidation of codes and code management functions could be realised through competitive tendering.

- 3. Simplification and accessibility** – new market participants can face barriers from complexity and from the self-interest of existing participants. Prior to any longer-term reform of decision-making governance, Code Managers should address these issues in a co-ordinated way. Our recommendations are:

- ♦ **Simplification** – build common understanding and improve how market participants engage with Code Managers e.g., a common web portal, standard data principles and standard terminology.
- ♦ **Transparency** – enhancing transparency and access to market data and decision-making processes to all market participants, enabling new and wider market participation.
- ♦ **Digitalisation** - create a common platform for market rules and compliance, providing clear and easy access for market participants.
- ♦ **Compliance** – create efficient compliance regimes appropriate for the risks involved. Where are we now?

THERE ARE  
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FORWARD

# ENERGY MARKETS FOR NET ZERO

## WHERE ARE WE NOW?

The UK's transition to net zero is poised to accelerate, catalysed by the Prime Minister's recent 10-point plan for decarbonisation and a green recovery, supported by policy initiatives in the accompanying Energy White Paper. Government targets for at least a 68% reduction in greenhouse gas emissions by 2030 are the fastest of any major economy.

This dramatic change will need to be enabled – and to a degree, driven - by improvements to the electricity and gas markets and their governance. These markets will need to accommodate many new participants and new products and services including from the heat and transport sectors. For example, 2020 saw record lows for electricity system carbon intensity, and some 10%<sup>2</sup> of new vehicle registrations in 2020 were for electric vehicles, potentially adding many new active customers participating in electricity markets.

## WHAT'S ON THE HORIZON?

**More market participants** - customers are increasingly becoming active participants in energy markets (either individually or in groups) through management of their own demand, storage, and low carbon generation. The energy transition means that cross-vector (and two-sided) energy markets must be enabled for a greatly increased number of participants.

**Growth in cross-vector markets** - as policies to reduce fossil-fuels in transport and heating sectors take effect, growth in low carbon technologies including electric vehicles and heat pumps will be fast. The Committee for Climate Change<sup>3</sup> forecasts that 'By the early 2030s all new cars and vans and all boiler replacements in homes and other buildings are low-carbon – largely electric'.

**Growth in products and services** - as the markets grow and access to markets by customers is widened through digitalisation, this will create opportunities for new products and services to be offered at different points in the value chain. These might range from vehicle fleet services to data platforms, to demand management and a wide variety of other products and services where a market solution might drive benefits.

<sup>2</sup> Plug-in hybrid and electric vehicles (EV) accounted for more than 1 in 10 vehicle registrations in 2020, up from 1 in 30 in 2019, according to the Society of Motor Manufacturers and Traders (SMMT).

<sup>3</sup> <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

## IMPLICATIONS FOR CODE AND GOVERNANCE REFORM

These developments will vastly increase the number of potential active market participants, with an associated increase in customer demand for simple access to energy markets, and for common standards, simple processes and regulation.

Future market rules and governance will need to be designed to allow large and small market participants to gain equal access to markets that will be deeper and broader than they are today and will need to be flexible enough to adapt quickly to the challenges of the energy transition.

*Changes to existing market rules and governance arrangements will be critical to drive the energy transition. Alongside the recent Energy White Paper, BEIS published an update on responses received to their code and governance reform consultation. No conclusion has yet been reached but the update signals that decisions are expected to be taken later in 2021. The update also highlights that reforms are likely to take several years to implement.*

This reform agenda is challenging because the current complex and fragmented approach to governance and governance institutions is difficult to change. The consultation did not show clear support from contributors for any specific reform option. There is a risk that the lack of a clear consensus on a way forward may cause this issue to fall down the list of the Government's policy priorities, which are heavily engaged with Covid, Brexit and other energy priorities.

## CHANGES TO THE INSTITUTIONAL LANDSCAPE

Significant change is already happening within the existing governance framework and future changes are being considered. These developments include:

- ◆ **Reform of ESO** – in January 2021, Ofgem issued a statement concerning the future role of the ESO. They recommended greater separation from National Grid be implemented in order that the ESO might be more independent and more able to provide the strategic advice and delivery roles needed for the energy transition.
- ◆ **Establishment of Distribution System Operators (DSOs)** – in December 2020, Ofgem issued the sector methodology decisions for RIIO-ED2, which required Distribution Network Operators (DNOs) to set out their plans for creating DSOs to help enable the energy transition. DSOs will play a key role in enabling local and national energy markets.
- ◆ **Review of Engineering Standards** – alongside the Energy White Paper, an independent review of Engineering Standards was published, setting out the major reforms that would be needed for the energy transition. One key conclusion was the need to have a flexible governance regime to ensure that changes to engineering standards could keep pace with changes to the whole energy system.
- ◆ **Energy White Paper** – as well as the code reform discussed above, the paper signals that an updated Smart Systems and Flexibility Plan will be issued later in 2021. A call for evidence has also been issued on how a high renewable, net zero future may be realised. Both these market reform initiatives are likely to have implications for governance reform.

- ◆ **Restructuring of Xoserve** – Xoserve has recently announced that it will be establishing a commercial service company (Correla) to undertake data management and delivery activities. This company will contract with Xoserve to undertake these services.
- ◆ **Retail market reform** - Elexon has been given responsibility by Ofgem to lead and deliver the half-hourly settlement programme, aimed at enhancing domestic customer participation in electricity markets.
- ◆ **Retail Energy Code** – in late 2020, Gemserv (Delivery), Deloitte (Assurance) and Cap Gemini (Technical) were appointed to Code Manager roles for the Retail Energy Code following a competitive tendering process.

*These selected developments illustrate that the institutional landscape is not standing still and is constantly evolving. New institutional roles and responsibilities are being undertaken or planned. But there is a risk that such developments just overlay additional complexity and inflexibility on legacy arrangements that are already not fit for purpose.*

The underlying problems and barriers remain, namely:

- ◆ A fragmented governance structure, which lacks coordination and clear strategic direction,
- ◆ No clear or consistent accountability for performance,
- ◆ A complex and prescriptive set of rules, inhibiting new entrants and innovation.

# WHAT IMPROVEMENTS CAN BE MADE NOW?

The BEIS and Ofgem Code Reform initiative<sup>4</sup> aims to reform the code governance framework to facilitate strategic changes in the sector, unlocking innovation and benefits to consumers.

The initiative has identified the following key areas for improvement on existing arrangements. We have outlined the early, no-regrets opportunities for improvement in each of these areas.

## RECOMMENDATION 1 - PROVIDING STRATEGIC DIRECTION AND COORDINATION

The BEIS and Ofgem Code Reform consultation proposes a new function to give a strategic direction for codes, addressing the current fragmentation and lack of co-ordination between them. The options proposed are either:

- ◆ **Model 1:** a Code Manager function and separate 'strategic body'; or
- ◆ **Model 2:** an 'Integrated Rule Making Body' (IRMB) (a combined Code Manager function and strategic body).

The creation of a new entity and associated responsibilities (and changes to existing governance responsibilities) is expected to need definition in legislation which will take time to design and implement. Prior to any such legislation, we suggest that there may be opportunities to give strategic guidance to Code Panels and Code Managers asking them to take account of certain policy requirements. This would stop short of giving instructions but would require these bodies to fully consider such policy matters in their decisions, perhaps requiring them to report back on how they had considered this advice.

Such guidance may be similar in form to that expected to be issued by BEIS to Ofgem, asking them to consider such factors in their decisions. In this case, it may be appropriate for Ofgem to give guidance to Code Panels and Code Managers. Such guidance from Ofgem could also set out arrangements for enhanced co-ordination to address areas such as standardisation, transparency, and responsiveness for example.

Our recommendations are:

- ◆ **Strategic guidance** - Ofgem should issue strategic guidance to each Code Panel and Code Manager to guide their decision making, administration and compliance activities. This could address standardisation issues e.g., common data principles for GDPR, Cyber, and other common terminology used in different codes.
- ◆ **Strategic co-ordination** - Ofgem should lead senior-level strategic co-ordination across Code Panels and Code Managers to ensure effective collaboration. This could build on the existing Code Administrator Code of Practice (CACoP) arrangements.

<sup>4</sup> <https://www.gov.uk/government/consultations/reforming-the-energy-industry-codes>

## RECOMMENDATION 2 - ACCOUNTABLE AND INCENTIVISED CODE MANAGEMENT

The Code Reform initiative proposes to establish empowered Code Manager functions that have the right expertise, resources, and powers to oversee the change process and ensure compliance.

*Code Managers are in a prime position to implement change if they are empowered to do so. But effective code management requires the appointment of Code Managers that have clear accountabilities, incentives, funding, and resources to perform the required functions, including the ability to adapt to change in an agile way.*

Effective co-ordination and collaboration processes are needed to engage with market participants and other Code Managers. We suggest that this may be realised by the following initiatives:

### A) Independent code governance and decision-making

The dominance of existing market participants in the decision-making process means that self-interest can bias the governance process. The Code Reform initiative proposes to rebalance decision-making away from industry control to arrangements that have greater central oversight, are agile and responsive while continuing to draw on industry expertise. While legislative change will be needed to realise fundamental reform, we think there are potential initiatives that may be pursued in the near-term.

Our recommendations are:

- ◆ **Proactive approach to controversial decisions** – a requirement for Code Managers to highlight areas of concern to Ofgem at an early stage in decision processes, so controversial decisions and processes may be fast-tracked for regulatory decision or involvement.
- ◆ **Proactive approach to future changes** - a requirement for Code Managers to anticipate and prepare options for dealing with potential future decisions arising from market changes, seeking to anticipate and address future difficult decisions and decision-making blockages.

### B) Code Manager Performance Incentives

At present there are few incentives provided to Code Managers to improve performance. New incentives could be introduced to encourage immediate performance improvements as well as laying the foundations for long-term reform. Financial incentives may be used to reward or penalise ongoing performance including factors such as agility, quality, collaboration, and customer service. Reputational incentives could also play an important role.

Our recommendations are:

- ◆ **Financial incentives** - these should be introduced to incentivise Code Manager performance using an incentive framework to reward or penalise performance. This may comprise ex-ante targets where outputs can be defined in advance, or ex-post assessment where more subjective outcomes might be measured. The incentive regime would need to be calibrated to encourage desired behaviours through positive action, and not cause risk-aversion.
- ◆ **Reputational incentives** - the Code Panels and Code Managers should regularly report on past performance in complying with their strategic guidance, and also how it will be implemented through their forward plans.

The incentive regime should be developed and administered by BEIS and Ofgem using existing contractual or code governance arrangements. Independent expert performance panels might be used to advise on rewards or penalties.

Performance targets and incentives could include a range of elements such as:

- ◆ **Customer performance surveys** – seeking feedback from stakeholders on a range of customer service and performance in a similar way to the regular CACoP surveys. These surveys should be independent and use both qualitative and quantitative metrics. They could also provide feedback on issues such as effective collaboration and co-ordination across code bodies.
- ◆ **Code modification timescales** – measuring performance in delivering modifications and against defined timescales.
- ◆ **Delivery performance** – measuring the delivery of improvement initiatives, such as the delivery to time and cost of new IT systems.

### C) Funding of Code Manager improvement initiatives

The current governance framework may mean that performance improvement initiatives are not taken forward, especially if they overlap individual Code Manager responsibilities. Where such initiatives are identified (either individually or jointly by Code Managers) and demonstrate the potential for a cost or service benefit, there should be potential for such initiatives to seek funding.

For example, ideas for improvement funding could be made available through initiatives such as Ofgem's RIIO-2 Strategic Innovation Fund which is designed to fund whole system innovation initiatives, including the involvement of non-regulated third parties.

Our recommendation is:

- ◆ **Improvement and innovation funding** - Code Managers should be able to bid for funding for innovation initiatives to improve performance, including initiatives combined with other code bodies and industry processes.

### D) Competitive appointment of Code Managers

Whereas some Code Managers are appointed through competitive procurement, others retain their roles through legacy arrangements. A competitive tender process ensures the best capabilities can be recruited and ensures value for money, and appropriate governance and performance arrangements can be established.

The aim of code and Code Panel consolidation is unlikely to be realised prior to any legislated change to governance. But in the interim, competitive procurement for Code Managers could be used to consolidate code management functions. This could lead to fewer points of engagement or gateways for market participants to engage with existing codes, thereby simplifying accessibility.

Our recommendation is:

- ◆ **Competitive tendering** - the appointment process for Code Managers should use a competitive tender process whenever possible, selecting most appropriate organisation against criteria including capability, expertise and value for money. A competitive procurement process could be used to deliver code management consolidation and enhance co-ordination.

### RECOMMENDATION 3 - CODE SIMPLIFICATION AND ACCESSIBILITY

The volume and complexity of codes presents a significant cost and entry barrier to market participants. The aim of code and governance reform is to improve accessibility, simplify and consolidate codes, removing unnecessary content, and ensuring codes are suitably adaptive to a changing industry.

However, these codes provide considerable regulatory certainty and can provide confidence to investors that the rules are robust. It will be important to strike the right balance between maintaining certainty and simplifying access to these rules.

Simplification may be realised by rationalising the codes and the overall number of pages. But this may have limited impact as removing these rarely accessed code sections may not alter the ease of using the codes. Ease of use and accessibility for market participants may be more quickly improved through enhanced guidance and engagement from Code Managers, acting in a consistent and co-ordinated way.

Accessibility may also be enhanced through digitalisation, such as a common platform used by all Code Managers to provide easy access for market participants to policy and code documentation, as well as tailored 'use cases'. This approach could draw on established policy/procedure digitalisation tools (an example is the [CodeWorks](#) solution deployed for the Smart Energy Code) to support this early action.

*Transparency of market information, both of market data (implementing the recommendations of the Energy Data Task Force) and of the market rules and associated changes, are critical for enabling market access and liquidity. This should help enable market access and improve market liquidity and efficacy.*

The overlapping market compliance arrangements required under individual codes can be burdensome, especially for smaller participants. The market compliance arrangements should be fit for the risks involved. The rigour and intervention designed into compliance processes should align closely with the value at risk.

Our recommendations are:

- ◆ **Simplification** – improving accessibility by requiring all Code Managers to review their customer journeys i.e. how market participants engage with them, and to collaborate on common improvement initiatives e.g. a consistent approach to code guidance.
- ◆ **Digitalisation** – improving accessibility by requiring all Code Managers to collaborate in creating common platforms for market rules and compliance, providing clear and easy access for market participants.
- ◆ **Transparency** – where all Code Managers are required to collaborate on making market data, processes, and rules open and available to market participants.
- ◆ **Compliance** - where all Code Managers are required to collaborate on approaches to compliance regulation to ensure they are fit for purpose and risk-based e.g. to reduce market entry checks and rely more on audit or sampling for market compliance.

### BENEFITS TO STAKEHOLDERS

While these initiatives will not substitute for fundamental reform of the governance framework, they offer some opportunities to gain early benefits while major reforms are being completed. They offer the opportunity for a staged process, where some improvements may commence ready to be consistent with and adopted by the new governance structure.

The benefits of early action through such a staged approach are likely to be:

- ◆ **Government and Ofgem** – progress towards the reform aims while the new governance regime is being established; some potential early wins and ensuring that preparatory work starts early so that reform implementation is not delayed.
- ◆ **Code Panels and Managers** – strategic guidance and greater Ofgem involvement in co-ordination should improve empowerment and set clearer expectations; ability to pursue innovation, simplification and consolidation initiatives.
- ◆ **Market participants** – improvements to market and governance access, compliance and regulatory burdens; enhanced ability to engage in governance and code change.
- ◆ **Energy customers** – earlier initiatives to reform the code governance structure should accelerate the market improvements to help enable a decarbonised, affordable and secure energy future, where customers may take a more active role.



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# SUMMARY OF RECOMMENDATIONS

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Code governance reform is urgently needed to enable the Government's vision for a green recovery and net zero decarbonisation at least cost. We propose that:

- ◆ **The current Code and Governance review should consider near-term actions focusing on** the market design and associated administration needed for 2025, accommodating the expected increase in interactions between electricity, heat and transport vectors.
- ◆ **No regrets improvements** should be initiated now to existing code management arrangements e.g. improving access and services to existing and new market participants. It should empower and incentivise Code Managers to deliver improved services.

By commencing these no-regrets initiatives without delay, the Government can either provide a well-advanced set of transformation initiatives ready for new governance institutions to adopt, or in the worst case will bring the deficiencies of the existing framework into stark relief, thereby prioritising the areas for future reform. Our recommendations to improve current arrangements in the near-term are:

1. **Strategic direction and co-ordination** – it is anticipated that BEIS will provide Ofgem with a Strategy and Policy Statement to help guide independent regulatory decisions so they are consistent with net zero goals. We propose a similar approach may be applied to code governance:
  - a. Ofgem should provide Code Managers and Code Panels with strategic guidance that is consistent with net zero policy goals;
  - b. Via this guidance, Ofgem should lead in setting out common priorities for improving code governance and enhancing co-ordination across the governance regime.
2. **Accountable and incentivised code management** – current governance structures present concerns about self-interest by market participants influencing decision-making processes, and about weak accountability for code management performance. We propose:
  - a. Code Managers should be empowered to act proactively in anticipating potentially controversial or complex decisions, and for anticipating future market developments and their implications for code changes.
  - b. Financial and reputational incentives should be introduced using performance targets across a range of output measures, building on existing initiatives such as CACoP stakeholder surveys.
  - c. Code Managers should individually or jointly be able to obtain innovation funding to pursue improvement initiatives.
  - d. Competitive tenders should be used wherever possible to select Code Managers, seeking opportunities to consolidate codes and delivery activities.

3. **Code simplification and accessibility** – the complexity and bureaucracy of the industry self-governance framework are often stated as inhibiting the ability of new market participants to participate fully in energy markets. We propose:

- a. Code Managers should be empowered to pursue the accessibility and simplification improvements to market rules that market participants want.
- b. Digitalisation – Code Managers should pursue opportunities to improve accessibility through co-ordinated approaches to digitalisation,
- c. Transparency – market data, rules and processes should be open and available to all market participants.
- d. Compliance requirements should be proportionate and aligned with the value at risk (i.e., a risk-based approach to governance).

Overall, these initiatives should bring benefits to existing and future consumers by accelerating the reform of the industry governance framework to help create the energy markets needed to deliver a decarbonised, secure and affordable energy system.



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