Energy Code Reform: Insight into the ESO Consultation response

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Agenda

- Introduction – Energy Code Reform
- ESO views
- Roles and Responsibilities
- Possible code consolidation
- Incremental change: the governance process
- Whole system technical code
- Final Q&A

Energy Code Reform: Insight into the ESO Consultation response

Purpose

The energy codes are the rulebook for industry and will be an essential facilitator for net zero. But they are also complex and slow to adapt. In this session we will be looking at the BEIS/Ofgem Energy Code Reform work and will provide insights on the ESO's thinking after the recent consultation.

This is for you if…

You are interested in the codes and regulatory arrangements or are involved in the energy code review process, and want to understand more about the ESO's role in these areas.

Introduction – Energy Code Reform

Code change is increasingly challenging

Challenges

Volume

Complexity

Interdependency

Finite Industry Capacity

Solutions

Short term

?

Long term

Governance reform

Codes, charging and frameworks are on the critical path to net zero

Whole System

By 2030 we could see decentralised generation providing 73-89% of peak demand.

We therefore need to:

- ensure coordination and consistency across codes
- increase visibility and engagement of connected assets

Competition everywhere

By 2030 we could see over a third of consumers providing flexibility services, increasing to over 80% by 2050.

We therefore need:

- reduced barriers to entry & improved access to information
- enabling market access for more participants.

Carbon free operation

Annual renewable generation could increase from 41% today, to 80% by 2030 and 96% by 2050.

We therefore need to:

- support new markets and services
- enable increased system flexibility
- enable increased interconnection.

Scaling up low carbon infrastructure

The electrification of transport and heat are expected to drive increases in:

- total GB generation capacity by 150-200% by 2050
- offshore wind to 40 GW by 2030 and to over 80GW by 2050.

We therefore need:

- new connections & infrastructure arrangements
- efficient commercial signals in network charging.

Scope

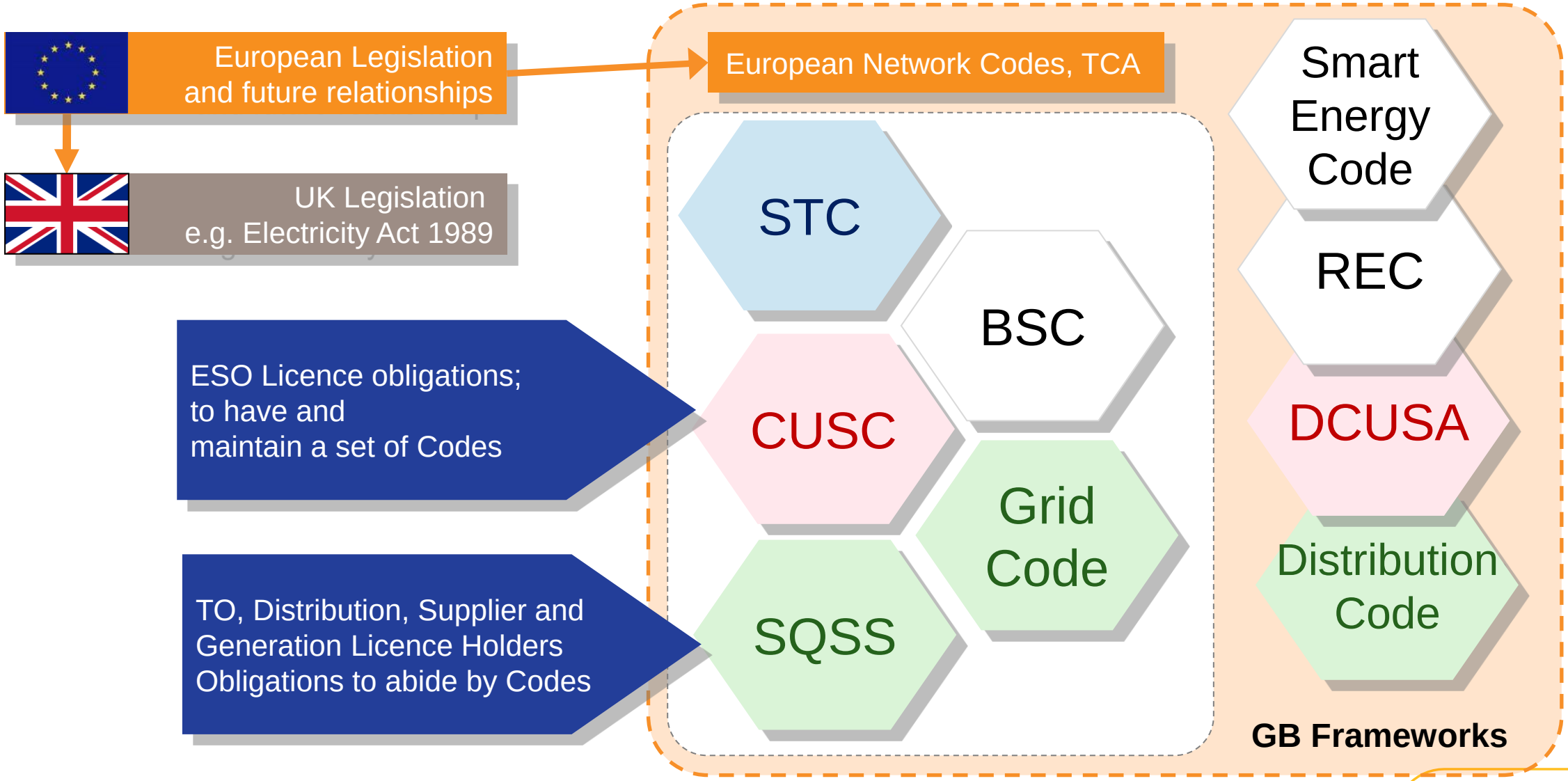
Desired outcome for energy code governance is a framework that is forward-looking, agile, easy to understand, and able to accommodate a growing number of market participants.

Four areas for reform required to deliver on this outcome are:

- providing strategic direction;
- empowered and accountable code management;
- independent decision-making; and
- code simplification and consolidation

Scope will cover all 12 of the current electricity and gas codes as well as relevant engineering standards and central system delivery bodies

Electricity Codes: The industry's rule book



BEIS/Ofgem Reforming the energy industry codes

1st consultation July 2019 - consultation responses published Dec 2020.

Sought views on proposed solutions to problem statement:

‘These rules [energy codes] need to adapt much more rapidly to enable the transition towards a more flexible energy system with net zero emissions, while minimising costs and protecting consumers.’

BEIS/Ofgem Energy code reform: governance framework

2nd consultation July 2021 – closed on 28 Sept 2021

Views sought on detailed solutions proposed:

Option 1 (favoured by BEIS and Ofgem)

- Strategic body appointed to select code managers, set strategic direction for codes and ensure it is delivered
- Code Managers appointed by competitive tender. Replace industry panels and set delivery plan; stakeholder input achieved through stakeholder advisory groups/committees

Option 2

- Creation of an **Integrated Rule Making Body (IRMB)** within the Future System Operator (FSO). Combines strategic function and code manager function.
- Ofgem would retain some oversight and decision-making roles

Noted that consolidation and simplification could also be features of the overall solution

ESO Views

Key Considerations

There are several key considerations which we believe are important to highlight:

- **Whole system thinking and coordination** will be critical in the journey to Net Zero. The role of the FSO will be central in advising the strategic code body and Code Managers on system needs and priorities, and should have an appropriate input to these roles.

- **The technical codes, such as the Grid Code and SQSS, are core to system operation and system security**. The ESO/FSO has both the subject matter expertise and experience required to inform the evolution of these Codes, and the obligation for system security that these codes ensure. We therefore believe that the ESO's central role in these codes should continue.

- **Ofgem currently has governance structures and processes in place for all codes, making it well placed to fulfil the role of Strategic Body**. Re-creating these in the FSO to achieve the IRMB model would require significant time and investment for little or no increase in value to consumers.

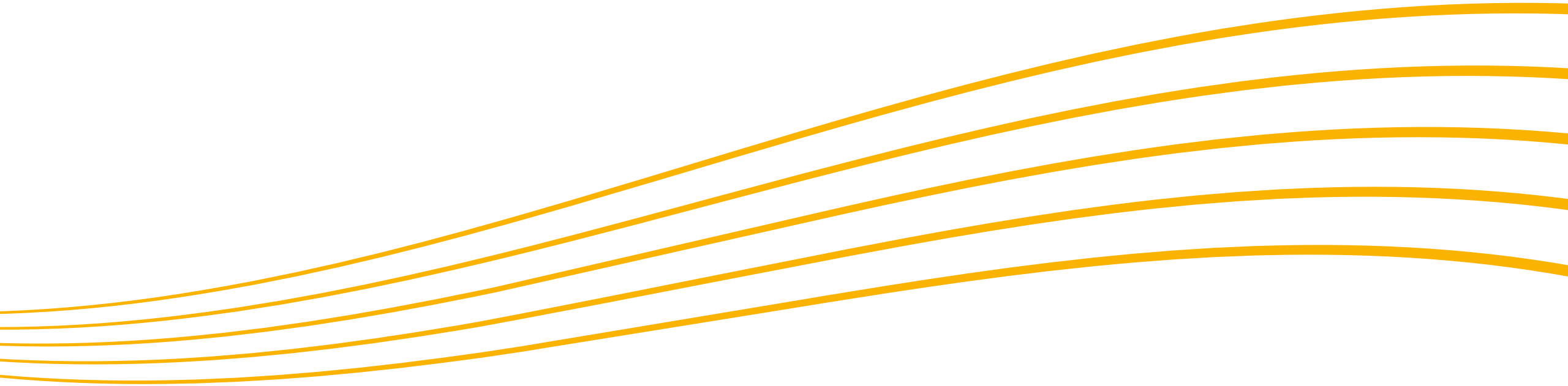
What would be the best option?

Either option could work; but the ESO believes that option 1 is preferable on the basis of:

- **Speed of implementation**; the pace of framework change to facilitate net zero cannot sustain the delays that would be caused by linking to the development of a FSO model or requiring the FSO to expand outside core ESO specialisms

- **Impact on achievability of the SO review** which would be caused by option 2 due to increased scope of the FSO and stakeholder concerns regarding conflict of interests.

Roles and Responsibilities



Code Managers

Code Managers are envisaged to replace industry code panels and will:

- Develop and publish a delivery plan consistent with the strategic direction
- Prioritise and co-ordinate delivery of change

ESO considerations:

- Code managers will be required to fulfil a technically demanding role with a high level of expertise required in the subject area and governance that they will focus on
- For some of the more technical areas of codes and frameworks such as the Grid Code, SQSS and STC, as well as the transmission charging methodologies currently contained within the CUSC the FSO is a clear candidate
- If the FSO were to be a CM then appropriate safeguards should be established to remove any potential perception of conflict of interest, which may be part of the FSO definition
- Tendering process could be a distraction, particularly if carried out regularly, with a narrow field of competitors

Strategic Body

The strategic body will set the overall direction and will have the necessary level of oversight to do this and to hold other parties to account

ESO considerations:

- Under option 1, likely that this would be Ofgem making use of their skills and experience to ensure a rapid and efficient transition - leaving arrangements as is as far as possible will result in better outcomes
- Value in defining an advisory role for the FSO under option 1 making use of the FSO's system knowledge and expertise

Stakeholders

Code panel responsibilities are envisaged to be taken on by Code Managers. While further consultation on the detailed code change process is expected, it is envisaged that any party will be able to propose changes and that establishment of an appeals process will also be necessary.

ESO considerations:

- Delivering engaged solutions is slower, but without access to diverse perspectives with technical and commercial experience in the market, suboptimal approaches may be adopted resulting in greater costs to consumers overall
- Code Managers should be incentivised to co-operate with and develop plans with stakeholder input – including a requirement to establish stakeholder advisory forums

Possible Code Consolidation

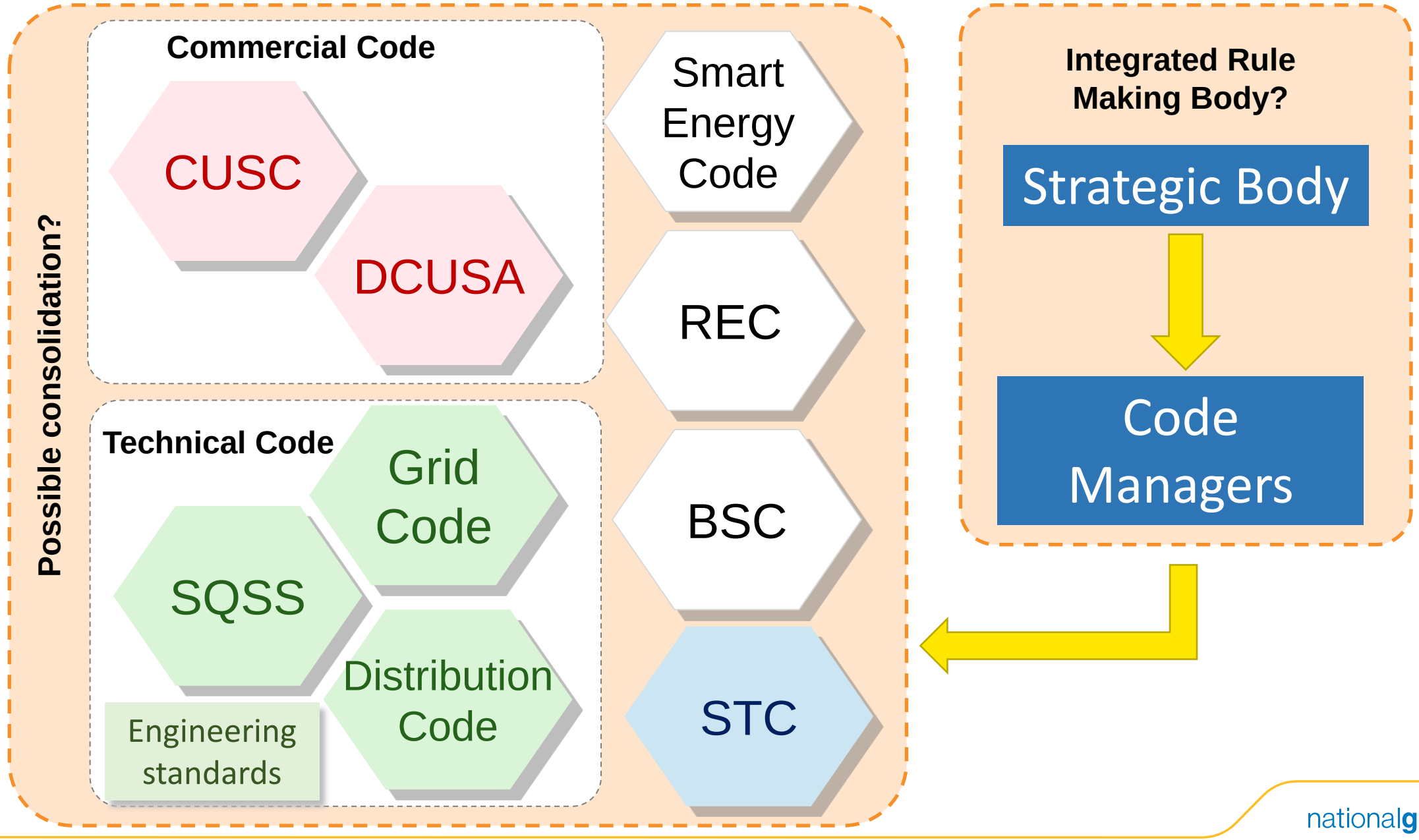
The current code and framework arrangements are fragmented, over-complicated and hard to follow. Greater harmonisation would aid in accessibility and understanding.

Consolidation is noted as being likely to be looked at during further development of the Ofgem/BEIS proposals.

ESO considerations:

- The appointment of CMs could be an opportune moment to establish a framework for rationalising and consolidating the codes
- A framework of licencing or tendering along the lines of any intended consolidation could be established
- A key expectation of code managers could be to deliver consolidation

Code Consolidation Thoughts



Key Considerations

- Removing transmission/distribution distinctions could aid ‘whole system’ thinking
- Establishing a single technical code could make technical requirements clearer, easier to understand and achieve better harmonisation
- Certain subsidiary documents and engineering standards are considered in scope
- Making any changes to code content is time-consuming and complex; making structural and governance changes is easier to accomplish

Incremental change: the governance process

While the governance process around code change is out of date, complex and often lengthy, you have noticed a change in the service you receive from the Code Administrator. We've already made some changes such as:

- Improvements made to the Modification Tracker
- More opportunity to co-create
- Better coordination of industry meetings
- 'Quick win' governance modifications, implemented in CUSC and Grid Code

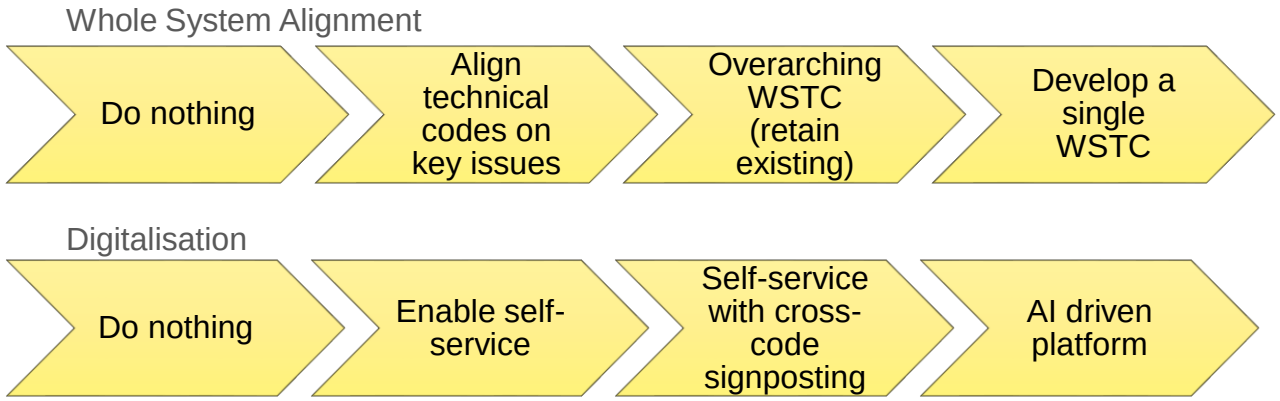
There's still a lot more that we can do, while we await larger scale reform. The Code Administrator are focussing on 6 areas of improvement as noted in our letter to Industryy in April 2021:

- Upskilling & recruitment
- Collaboration
- Better sight of cross code impacts
- Diversity & equality
- Rationalisation
- Digital transformation

Digitalised Whole System Technical Code

The digitalised WSTC project seeks to digitalise and consolidate or align technical codes through an industry-led approach.

- This ambition was supported by stakeholders and Ofgem as part of the ESO RIIO2 business plan
- The Ofgem/BEIS Energy Codes Reform recommends code simplification and consolidation
- NGESO has consulted at various industry forums since June 2021 to gather initial input on the scope, objectives and approach for this consultation and the wider project. The information gathered from the engagements at these forums has been used to inform the consultation that was issued to industry on 27/09/21.
- Stakeholder feedback is that the technical codes are lengthy, overly complex, and are structured differently across Transmission and Distribution – creating a barrier to market participation and difficulty in navigation
- Consultation 1 closed on 12/11/21
- Consultation 2 with a proposed scope of work will be issued in early 2022



Delivery of Solutions

Whole system alignment independent of ECR

a) Deliver modifications through existing governance process
b) Detailed recommendations for alignment delivered later, as part of ECR implementation

Code consolidation/alignment or creating new codes

a) Develop recommendations & input to the BEIS/Ofgem ECR
b) Postpone until ECR outcome

Digitalisation of codes

a) Grid Code only
b) Distribution Code (& ERECs) only
c) Grid Code and Distribution Code (& ERECs) separately
d) Grid Code and Distribution Code (& ERECs) together
e) Wait for BEIS/Ofgem ECR decision on consolidation

Q&A

Q&A

- **Purpose of Codes according to GEMA (to CMA) is as multilateral contracts - so need to be developed by all contract parties - not just the ESO as Code manager dictating what counterparties have to do**
- The challenge is around injecting pace into proceedings, no matter which model is chosen. While open governance and the multilateral approach has broadly worked, the ECR clearly shows that while stakeholder engagement is critical and will form a huge part of the solution greater pace is needed to deliver net zero.

- **Missing Smart Energy Code off the earlier slide**
- Yes, we will add next time we use this slide! (and have already amended in the pack)

- **I worry we are discussing the colour of the deckchair material on a well known early 20c liner. Prefer instead of discussion of the admin you discuss the content e.g. how to have an offshore GC...**
- There are some very significant technical challenges to resolve such as offshore transmission or to facilitate greater demand side participation. I agree with the worry. But it also makes it critical to make sure that any solution under the ECR work helps to facilitate change and is not a distraction.

- **If the ESO retained code admin responsibilities, what would it do to improve its performance as a code administrator?**
- We continue to share our plans with stakeholders about the actions and focus points as a code administrator on an annual basis. Continuous improvement of the service we provide and increasing the rapidity, volume and quality to code change is key. The quality of the service that we provide continues to rise, as proven in the survey that we conducted last year.

Q&A

- **I notice your (biased?) poll did not give an option of the current Panel / Code Admin approach**
- The poll was reflecting the options that were presented in the ECR consultation and our views on these. We believe that there needs to be change to help inject pace into market and code reform though so the status quo is unlikely to solve the issues identified.

- **Can we move on to substance pls. what are the key NZ enablement challenges- they aren't these. They are data exchange across industry, common/ consistence planning and interface principles, telemetry**
- There is quite a list – add low inertia system operation, offshore transmission arrangements, build/non-build criteria, operational support via smaller market parties or aggregators, participation of smaller parties in the BM etc….but the ECR is looking at how to facilitate a pace of change that in the view of the consultations so far is not achievable with the existing systems and processes.

- **Given the feedback - has ESO asked to get rid of its code admin roles?**
- The best view of the service that we provide should be through the forthcoming results of the CACOP survey and how we have provided a valuable service to the industry.

- **What is the strategic direction? how is this agreed and consulted upon?**
- This remains to be defined. At the moment the ESO publishes an annual Future Energy Scenarios (FES) document and has also set out challenging ambitions in its RIIO T2 business plan. Strategic direction may also be given by legislation, such as the recent Electricity System Restoration Standard, or government policy which may be enacted by Ofgem through significant code reviews.

Q&A

- **There is little point to industry engagement via forums if they have no legal teeth as Panels do today**
- Implementation of any governance process and the appropriate involvement in stakeholders will be fundamentally important. Any model must make sure that stakeholder views are appropriately taken into account. We have provided suggestions of how this could work in our consultation response.

- **Grid code, D code & balancing code - how to enforce consistent performance requirements between all forms of demand modification equivalent to analogous generation performance & visibility?**
- Agree. Consolidation would help to achieve greater consistency/harmonisation as well as making it easier for stakeholders to engage with the requirements set out in the codes. Structural consolidation is potentially easier than aligning areas of content but generally technical requirements are already similar but stated in different ways.

- **How to limit account for fast variation / uncertainty in energy markets in cost reflective ways with associated performance and visibility to address - not just interconnector ramping issue?**
- Agree, this is a significant challenge. Again, it is a matter of balancing operational needs with stakeholder concerns. It is important that the market is able to deliver though and is sufficiently incentivised to do so - not just by code compliance requirements.

- **How to deliver STC-like exchanges across distribution transmission and external network interfaces**
- Agree with the sentiment which we think is that whole system solutions are necessary.

Q&A

- **Doesn't missing the Smart Energy Code highlight the need for consolidation. However, maybe we could look at the REC for lessons learned?**
- Absolutely. REC has shown that challenges exist in any consolidation exercise. Incredibly important to get this right for wider technical and commercial arrangements.

- **Is it not for BEIS to set the direction and Ofgem to deliver it?**
- The expectation would be that BEIS would set overall direction through government policy and legislation, but to fulfil policy is likely to require levels of strategic direction from Ofgem to industry parties. The ECR work is an example of this approach where both bodies are clearly involved and this is evidenced by their jointly badging the ECR work to date.

- **Engineering standards enable codes & are specific to particular network owners & operators delivering their responsibilities providing an operator & the market clarity on their activity = STC.**
- 'In scope' engineering standards will be included in the consolidation as it is feedback that has been received from both transmission and distribution stakeholders and is discussed in the ECR. It helps to harmonise the technical requirements for equipment if these can be expressed in one place.

- **If code consolidation was important, why did your consultation not ask which codes we want to merge as a priority?**
- It isn't the ESO's consultation. As outlined in the presentation, there are various options for code consolidation and this will be further developed as the ECR work progresses. We would envisage that this is an area where stakeholder input will be crucial in determining priorities.

Q&A

- **If you want to cocreate why do you not have issues groups like the BSC does?**
- We have development forums under each of our codes where parties are able to present potential modifications or issues and discuss them with industry. These include the Transmission Charging Methodology Forum and the Grid Code Development Forum (TCMF and GCDF) and we welcome submissions to these from stakeholders.

- **Why not use CACoP to do a mod tracker for all industry codes - they don't seem to do much else that is useful!**
- There is a CACoP tracker which provides a high level view and recently the CACoP has created a new website which will act as a one stop shop to find high level information about all codes. http://www.cacop.co.uk
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- **Does ESO/FSO have the same appetite for liabilities associated with dictating code policy to industry - hard to argue CUSC liability limitation continues if CUSC parties have less influence on it**
- Stakeholder engagement is key. In terms of liabilities, the ESO will take on whatever liabilities or risks it is funded for but needs to demonstrate continuing value for money to consumers in any arrangements going forwards.

- **Can you share information on the webinar mentioned during the incremental change slide?**
- https://www.eventbrite.co.uk/e/eso-code-administrator-workshop-6-december-2021-tickets-208589265107

Q&A

- **Is and option f) missing re: alignment of digitalisation with duel fuel codes REC and SEC which is live? albeit Codeworks does have its own pros and cons**
- Following feedback during the WSTC engagements to engage with Code Admins who are ahead with digitalisation, we are in contact with REC and will shortly be contacting the DCUSA Admin to pick up lessons learned.

- **We welcome the level & quality of ESO stakeholder outreach on Digitalised Whole System Technical Code & co-creation webinars - even if we don't agree 100% with the project.**
- Thank you very much.

- **Good to see the work on the mod tracker - liked being able to be involved in making the changes. Thanks**
- Appreciate the positive feedback, thank you. We will continue to host interactive workshops to seek input and feedback.

- **I am struggling with ESO talking about pace of change when they stand in the way of changes they do not like - e.g. GC109 - are you changing your way of working to stop this?**
- This particular change took a great deal of time and effort to develop as the solution was not clear from the outset. Its value was somewhat tenuous but ultimately it was supported by the ESO and has been implemented. The ESO will always look at whether changes are clear in their intent, technically correct, and provide value for money to consumers

Q&A

- **The consolidation question was about your digitalisation consultation - you did not ask if Grid Code and D Code were our priority as a market?**
- We have received feedback stating that the commercial codes are higher priority than the technical codes for consolidation. This will be considered.

- **Add GC0105 and GC0133 to the mention of GC0109 in the earlier question about ESO**
- Any code modification that places legal requirements on parties - including stakeholders and the ESO - has to be properly formed and the benefits carefully assessed as part of Ofgem's decision making process.

- **We have not touched on NGESO as the EMR Delivery Body - should that also not be addressed?**
- EMR is not part of the scope of the Energy Codes Review. We envisage however that the role of the ESO as the EMR Delivery Body will form part of the 10-year reviews to be undertaken separately by BEIS and Ofgem.

Contact us:

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