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RECCo response to open letter: Energy Digitalisation Governance – Architectural Coordination

We welcome the opportunity to respond to this consultation. Our non-confidential response represents the views of the Retail Energy Code Company Ltd ("RECCo") and is based on our role as the code manager and operator of the Retail Energy Code ("REC"). RECCo is a not-for-profit corporate vehicle responsible for the effective and efficient implementation and ongoing management of the REC arrangements. We seek to promote trust, innovation and competition, whilst maintaining a clear focus on positive consumer outcomes.

As code manager, RECCo already has a central role in the governance and evolution of retail market digital infrastructure. Through the REC's central services – including switching, data transfer and market assurance – we work closely with suppliers, networks, metering agents and other code bodies to ensure that systems are interoperable, changes are co-ordinated, and the impacts on consumers and competition are properly understood. In addition, Ofgem and the "Department for Energy Security and Net Zero ("DESNZ") have asked RECCo to develop key elements of the future digital landscape, including the Consumer Consent Solution ("CCS") and the tariff interoperability framework, and we have engaged actively on related programmes such as Smart, Secure Energy System ("SSES") governance and Smart Energy Data. Taken together, this positions RECCo at the intersection of several major digital initiatives.

From next year, RECCo will itself become a licensed entity, directly accountable for delivering against the objectives set out in Ofgem's Strategic Direction Statement – many of which relate to the digital programmes in scope of this consultation. That future licence role, combined with our existing responsibilities for key retail market services, means we have a strong interest in, and practical perspective on, how architectural coordination is taken forward. It is on this basis that we offer the views set out in our answers below.

1) **Where is there a need for architectural coordination across the sector to unlock the full value of energy system digitalisation?**

We agree there is a clear need for targeted architectural coordination to unlock the full value of energy system digitalisation, particularly where major programmes intersect – for example RECCo/CCS, SSES, National Energy System Operator ("NESO")/Data Sharing Infrastructure ("DSI"), Elexon/Flexibility Market Asset Register ("FMAR") and wider smart data work. Without some coordination, there is a real risk of duplicated solutions, inconsistent standards and higher costs for consumers.

However, we do not think this means creating a new central "architecture body". Coordination is already happening – including through existing code governance, programme boards and Ofgem-facilitated fora – though this can be ad hoc, and dependent on personal relationship rather than at an institutional level and is not yet durable. The gap is a persistent, light-touch framework that aligns programmes on a small number of cross-cutting issues: shared data standards and ontologies; interoperability requirements; sequencing and dependency management; and common approaches to cyber and data protection risk.

We therefore favour a **federated model of architectural coordination**, consistent with the approach we have already advocated for SSES enduring governance and for the emerging energy smart data scheme. In

that model, a central lead (or framework) sets direction, but defined responsibilities and decision rights are distributed across the main delivery bodies (NESO/DSI, Elexon/FMAR & SDR, RECCo/CCS & tariff interoperability, Data Communications Company ("DCC"), SSES governance), working to shared rules, interfaces and joint decision-making to deliver end-to-end outcomes.

Ofgem's role would be to define scopes requiring coordination and embed collaboration duties via licences and codes, rather than to host the function itself. A segment-led architecture forum, operating against a common digital architecture "reference" and minimal interoperability baseline (analogous to the EU Energy Data Space approach), would provide enough structure to avoid fragmentation while preserving innovation and accountability within each segment.

2) **What are the constituent elements of architectural coordination of digitalisation in the energy sector?**

We see architectural coordination as a *defined but limited* set of functions focused on interoperability and coherence, not on centralised, top-down system design. The constituent elements should be capable of being delivered through the **federated, segment-led model** described in our response to Question 1, with Ofgem setting scope and expectations and the main delivery bodies collaborating to a common framework rather than a single central authority.

On that basis, we think the core elements of architectural coordination should include:

- **Sector-wide visibility of digital infrastructure** – mapping the key shared components (DSI/NESO, CCS/RECCo, DCC, FMAR/Elexon, DIP and other central services) and their interfaces, to minimise duplication and clarify where common services should exist.
- **Common standards stewardship** – light-touch ownership and curation of cross-segment data standards, ontologies and exchange protocols so that different programmes can interoperate.
- **Shared architectural principles and reference patterns** – a small set of architecture principles and reusable patterns against which new programmes and major changes should assess alignment, rather than a detailed blueprint.
- **Cross-programme dependency and change management** – a mechanism for identifying and managing dependencies between SDR, DSI, FMAR, CCS, SSES and related initiatives so that design decisions in one area do not inadvertently cut across another.
- **Reducing information asymmetry and skills imbalance** – practical support for smaller participants through clearer documentation, open standards and shared artefacts, responding to Ofgem's concern that the benefits of digitalisation could otherwise concentrate among a few large players.

These elements are all compatible with (and, we think, best delivered through) a **distributed, federated model**: each segment takes responsibility for its own domain, but works to shared principles, standards and coordination processes defined at sector level, rather than relying on a new central architecture body.

3) **What value could a common digital architecture document for the energy sector provide?**

We consider that a common digital architecture document could add real value, provided it is scoped as a high-level reference architecture rather than a prescriptive system blueprint. Its primary purpose should be to set out: a small set of shared architectural principles; the key cross-programme interfaces; reference data models and agreed standards; roles and responsibilities across delivery bodies; and clear expectations for how future change should align with that target architecture. This would directly support Ofgem's objectives of improving visibility, reducing duplication of spend, and clarifying responsibilities across DSI, CCS, FMAR, smart metering, SSES and any future smart-data schemes.

Experience from other sectors suggests that such a document, if kept concise and iterative, can be a powerful coordination tool. In UK retail payments, the government's National Payments Vision provides a strategic framework and roadmap for renewing interbank infrastructure, setting a clear direction for the evolution of Faster Payments and related services. It shows how a short, outcomes-focused architecture document, owned collectively by public authorities and delivery bodies, can be used to articulate a shared target state while allowing for phased, adaptive implementation.

Open Banking in the UK provides a complementary example: a formally mandated implementation entity publishing common API and security standards and maintaining them through open consultation, which in turn has enabled a large ecosystem of third-party providers. Internationally, Australia's Consumer Data Right and its Data Standards Body show how legislation can set outcomes while a technical standards function maintains the API and customer-experience architecture through transparent, iterative processes. In the US power sector, NIST's smart-grid work has fulfilled a similar role by curating reference architectures, data models and test frameworks, leaving regulators to decide which standards to embed in rules. The emerging EU Energy Data Space goes further by combining a common reference architecture, "minimal interoperability mechanisms" and shared semantic standards with a formal governance system, so local and national platforms can federate without bespoke bilateral fixes.

Against that backdrop, we would support a GB architecture document that:

- focuses on cross-segment interoperability (rather than detailed system design);
- is maintained through a **federated, segment-led model**, consistent with our previous advocacy for federated governance; and
- is updated iteratively as programmes such as the Consumer Consent Solution, tariff interoperability, DSI and FMAR evolve.

We consider that the greatest value lies not in producing a single, static artefact, but in establishing a repeatable, cross-segment process for maintaining a shared reference architecture. That process should be light-touch, time-bounded where appropriate, transparent and explicitly focused on enabling innovation and good consumer outcomes, rather than creating a new layer of centralised design control.

4) What function may be needed to deliver architectural coordination and how would it interact with functions/organisations that are delivering digital public infrastructure (DSI/NESO, Consumer Consent Solution/RECCo, Smart Metering Network/DCC, FMAR and SDR/Elexon)

We agree with Ofgem's assessment that there is a need for an architectural coordination function, but do not think it is appropriate or efficient for Ofgem to host it directly. A regulator-hosted model risks blurring the line between regulation and design, and Ofgem has itself been clear that it does not seek to act as a detailed technical architecture or design authority.. Equally, we would be concerned if it were to be solely hosted by one of the existing central bodies, as each of them (including RECCo) have a relatively limited scope in relation to digitalisation and are not, on their own, best placed to act on behalf of the industry as a whole. Instead, we favour a federated, segment-led architecture forum, mandated through targeted licence and/or code obligations, as the most proportionate way to deliver architectural coordination while respecting existing roles. Under this model:

- Ofgem defines the scope of matters requiring architectural coordination (e.g. cross-programme data standards, shared interfaces, identity/consent patterns, core interoperability requirements).
- Each segment nominates technical leads – for example, system operation (NESO/DSI), networks, market settlement (Elexon/SDR & FMAR), retail and consumer consent (RECCo/CCS & tariff interoperability), and smart metering (DCC/SSEC).

- Delivery bodies participate on an equal footing in the forum, supported by an independent chair and secretariat if needed, to reduce the risk of any single segment dominating.
- The forum produces alignment artefacts – reference architecture guidance, canonical interface patterns, data-standards recommendations and dependency maps – and provides *non-binding* integration advice to programmes.
- Compliance and accountability are ensured through Ofgem's oversight of collaboration and interoperability obligations (and, where relevant, central-system direction powers), rather than by giving the forum direct enforcement powers.

This is similar in spirit to arrangements in other sectors. In UK retail payments, for example, the National Payments Vision is supported by the Payments Vision Delivery Committee (PVDC), which brings together public authorities and delivery bodies to align roadmaps, manage dependencies and agree sequencing of infrastructure change, while leaving detailed design and operation with Pay.UK and the individual schemes. The coordination forum we propose for energy would perform a comparable role for digital public infrastructure: a place to join up plans and test them against the common architecture, not a new system operator or design authority.

Within the energy sector itself, there is also a useful parallel with the emerging Cross Code Steering Group (CCSG) under the new Code Manager licence framework, which is intended to coordinate cross-code change and consequential system updates. We would see the architectural coordination forum as complementary to the CCSG:

- the CCSG focusing on aligning code change and governance; and
- the architecture forum focusing on cross-programme digital and data architecture, including interactions between DSI/NESO, CCS/RECCo, FMAR & SDR/Elexon, DCC/smart metering and SSES.

In GB energy, we suggest that the architectural coordination function should work alongside these delivery bodies to share plans and roadmaps; test proposals against the common architecture; and resolve cross-programme issues early. Ofgem and DESNZ would continue to set strategic direction and use existing tools (licence conditions, code obligations, central-system directions) to ensure that agreed architectural principles and standards are implemented where necessary.

We see this segment-led architecture forum, underpinned by explicit coordination duties in licences, codes and (where relevant) the CCSG, as the best way to deliver effective architectural coordination: neutral, sector-wide in coverage, and strong enough to avoid fragmentation, but light-touch enough not to create a new central "super-entity" or duplicate the design work rightly owned by existing delivery bodies.

5) Is coordination an ongoing task (including monitoring), or a temporary task to deliver the elements needed (from q2)? If temporary, where could responsibility for the elements sit on an ongoing basis?

We think some aspects of architectural coordination are inherently time-limited, but others are clearly enduring, so a hybrid model is needed rather than choosing "ongoing *or* temporary" in absolute terms. As digitalisation deepens, the steady-state need for interoperability management, shared standards and dependency management will grow rather than disappear.

In our view the split looks broadly as follows:

- **Initial, time-bound phase** – establish the reference architecture, agree a small set of cross-segment principles, rationalise overlapping standards, and map the key digital infrastructure components (DSI, CCS, DCC, FMAR, SSES etc.) and their interfaces.

- **Enduring phase** – maintain the architecture document, steward common data/semantic standards, monitor cross-programme dependencies and publish lightweight guidance on integration for new initiatives.

Experience in other sectors points to this kind of pattern. In UK retail payments, Pay.UK and the New Payments Architecture started with a major one-off consolidation and target architecture exercise, but now provide ongoing standards stewardship under Bank of England/PSR oversight.

Open Banking followed a similar trajectory: the OBIE was set up to deliver a time-limited CMA remedy, but its API and security standards now require continuous maintenance as part of an enduring ecosystem.

In the US, NIST's Smart Grid Interoperability Panel began by defining a conceptual smart-grid architecture and catalogue of standards, and then transitioned into a longer-term role in maintaining interoperability frameworks.

For GB energy, we therefore see merit in:

- using a time-limited "push" to produce the first cross-sector reference architecture and shared principles; then
- handing ongoing coordination to the segment-led architecture forum we propose in our answer to Q4, with responsibilities and collaboration duties embedded through licences and codes, as envisaged in Ofgem's open letter.

Ofgem's role should remain one of setting scope and monitoring compliance with these collaboration obligations, rather than acting as the enduring architecture owner itself.

Conclusion

In summary, our view is that a light-touch but clear framework for architectural coordination – underpinned by a standing, federated coordination body – will be essential to ensure that the next phase of energy system digitalisation delivers full value for consumers. The key need is not for a new central "super-entity", but for a segment-led forum that brings together Ofgem, DESNZ and the main delivery bodies to align a small number of cross-cutting issues – shared data and semantic standards, core interoperability requirements, dependency management and common approaches to identity, consent and cyber risk – across existing programmes. As the code manager for the REC, and the delivery body for the Consumer Consent Solution and tariff interoperability work, RECCo would welcome the opportunity to participate in such a coordination body alongside NESO, Elexon, DCC and others. We are keen to work with Ofgem and DESNZ to develop a practical, light-touch architecture process that makes best use of existing central services, avoids duplication of effort, and helps ensure that digitalisation delivers tangible benefits for consumers, competition and system efficiency.

We are happy to discuss any of the points raised in this response.

Yours sincerely,

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