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Dear BEIS & Ofgem

Response to Energy Future System Operator Consultation

Sustainability First is an independent think tank and charity focused on promoting economic, social and environmental wellbeing in public utilities.

Please find below our high-level points to the BEIS & Ofgem consultation on an Energy Future System Operator. This response can be published.

Our response draws on long-standing experience of the ESO through Sustainability First's engagement on energy regulation - including the RIIO-2 process (Ofgem Challenge Group, the NG Transmission User Group, Consumer Engagement Groups for both gas and electricity), the ESO Technology Advisory Council, through our work on governance of the energy and water systems and the public purpose agenda (Regulation for the Future Report and this project summary; and Sustainability Principles - Publications) – plus our strategic advice over five years to the ESO on its Power Responsive programme, a flagship example of collaborative working on design and evolution of flexibility services.

We support the underlying consultation proposition that net zero creates a step-change and the need for a new expert capability across electricity and gas systems plus a need to evolve whole-system approaches to energy system architecture, coordination and governance. We support the proposal to establish a fully independent future system operator with a cross-vector technical role for electricity (both operational and planning time- scales) and gas (strategic planning, forecasting, market strategy but initially not real-time operations). Generally, we support the proposition of targeted advice from the FSO and a strategic network planning capability for decision-making organisations - be that government, Ofgem or others. We also support a phased and well-considered approach to adding new responsibilities.

Below we set out some points not necessarily reflected in the specific consultation questions. We see these as important high-level considerations for BEIS and Ofgem as they develop the detail of the FSO proposals. Responses to specific consultation questions are in a separate document.

In developing the FSO role as outlined in the consultation, we see the need for more thought in the following areas:

- **Duties, powers and responsibilities of the FSO need tight definition in both statute and licence relative to those of the secretary of state and Ofgem**. Going forward there needs to be very clear delineation of respective duties (objectives), powers and responsibilities (roles). First, duties of all three must align – including on security of supply and resilience (see below) – including a new and explicit duty on the UK net-zero target.

Second, the split of powers and responsibilities needs clarification. In part responsibilities will be reflected in respective reporting obligations plus the new FSO licence. However, there is also merit in considering an MoU or equivalent, in particular to clarify respective roles of Ofgem and the FSO at a more granular level, and which should be published to build understanding and confidence in the new arrangements. A main aim would be to clarify where advice is being provided and where ultimate responsibility and accountability sits. For example, on grant of licences, security of supply (see below), decisions relating to price controls, new investment, network alternatives, holistic network design, gas stranding etc. In light of the proposal to introduce a power in primary legislation to ask the FSO for targeted and strategic advice plus a duty on the FSO to respond, clarification of FSO accountabilities via an MoU would be of particular help. But there are also areas where a straightforward understanding of 'who-does-what' will be needed: for example, on network analysis, modelling, scenario development, optioneering. Similarly, to clarify certain areas of potential overlap e.g code governance, code implementation, dispute resolution, enforcement.

Third, as the consultation indicates, strategic policy clarity also remains vital via the expected designated Energy Strategy and Policy Statement to Ofgem. Rightly, this is also expected to extend to the FSO. But – see below – of significant concern is the possibility that for a private company the SPS many only apply at one remove through Ofgem.

Taken in combination, these steps to clarify objectives and roles are important not just for government, Ofgem and the FSO – but absolutely central for all market participants and wider stakeholders in enabling effective and efficient market functioning for net-zero - and to build trust in the arrangements at a critical time in the transition.

- **'Fitness' of present arrangements and duties for energy security of supply and resilience need review with creation of the FSO** : the FSO is expected to have responsibility for electricity system operation, possibly greater responsibility for the capacity markets and market design, plus new long-term strategic responsibilities for integrating electricity and gas network planning and network competition arrangements (plus, potentially, hydrogen network plans). In the face of (1) dramatically increased electricity dependence - including end-user connectivity and (2) the extended transition period away from fossil fuels - for power, industrial-use and heat - there is a need for a comprehensive review of the fitness of current duties and responsibilities for energy security of supply and resilience - to see us safely and securely through the scale of the net-zero transition (and as illustrated by current pressures in the gas markets). The current complex and historic web of duties and responsibilities on energy security – across the full energy supply chain (retail included) - needs a full 'drains-up' review. This should include examination of how far either transfer or creation of new FSO duties and responsibilities – regardless of ownership models - may lead to unforeseen resilience issues including cross-utility, new 'gaps' or liabilities.[1]

[1] Our work has pointed to the need to better understand energy-water nexus issues (Viewpoint on 'Do energy and water mix?') and the need to take a total view of risk, understand inter-dependencies, plus the importance of stress testing assumptions etc (Briefing on 'Risk and uncertainty during the corona emergency: Checklist for boards and executive teams to support strategic thinking')

It will also be important to clarify soon how responsibilities for security of supply tie to proposals for a new Strategic Code Body and adoption of any new national electrical engineering standards.

- **Improving wider frameworks for strategic decision-making, coordination and delivery of net-zero** : we agree with the consultation that many choices and trade-offs for the future energy system impact at the level both of consumers and the entire economy and, given the inherently political nature of many of these decisions, that BEIS should continue for the time-being to lead on wider net-zero strategic coordination and delivery, including in shaping future markets. We note the narrower strategic role proposed for Ofgem to oversee the code governance landscape and agree that Ofgem seems the right body (rather than the FSO). In recent evidence to a House of Lords inquiry into the role of Ofgem and net-zero we confirmed our view that Ofgem needs an explicit new duty to align with the net-zero target. Also, related to this, a resilience and climate adaptation duty (an area highlighted by the the latest independent risk assessment of the Climate Change Committee as needing further work by the energy sector). Beyond these additional duties, we indicated how we do not see a significant current gap in terms of Ofgem's general duties nor, therefore, a short-term need for the potentially disruptive effect of new institutional arrangements. Rather, as noted above, we see the key present 'gap' being on clarity of respective statutory duties, roles and responsibilities – which could in part be addressed by our proposal for an MoU – plus much-needed clarification of government strategic policy via the Strategy and Policy Statement to provide both Ofgem - and the future FSO – a clear understanding of their respective roles and priorities in implementing government policy. As noted, Sustainability First is undertaking work on systems thinking and on sustainability principles for economic decision-making[2] and would be pleased to input as BEIS takes forward how best to improve system-wide decision-making, coordination and planning. The issue of priorities is particularly important given the trade-offs that exist.[3]

- **High-level strategic governance and accountability of the FSO** – we see it as extremely important to 'get right' the approaches to high-level governance and strategic accountability of the FSO. These matters go well-beyond the more narrowly framed but important consultation questions on ensuring that the FSO has arms-length relations with government and ensuring FSO company governance is free of potential commercial or business conflicts.

  Regardless of the ownership model (see below), fundamental questions arise as to how government will ensure adequate strategic oversight and transparent accountability of such a powerful and highly-technical body. Clear accountability and demanding annual reporting to government and to parliament will be vital – including select committee scrutiny – especially on how the government's Energy Strategy and Policy Statement shapes FSO priorities and outputs – both past and for the future.

  We note with concern that the government's Strategy and Policy Statement may at best apply only indirectly via the regulator to a privately-owned FSO[4] . We would urge that an effective way

[2] https://www.sustainabilityfirst.org.uk/sustainability-principles

[3] This is an issue that we are also raising in the context of Defra's Strategic Policy Statement for Ofwat.

[4] pp.52 -4 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1004044/energy-future-system-operator-condoc.pdf

is found to ensure that strategic accountability of a private FSO amounts to far more than a bilateral matter between the regulator and the licensed FSO.

On company governance and accountability, government also needs to identify robust models. If a private company, effective board oversight (i.e. with the right expertise) may prove hard to square with the consultation wish for FSO ownership and governance to be free of relevant commercial interests (especially given that 'energy interests' now extend across many different sectors, including transport, hydrogen, heat). If an independent public-sector corporate-body then it is also critical for the independent chair and non-executives to have the capacity and expertise for effective oversight of the very complex body that is the FSO. Governance models for a public- FSO should be informed by governance of bodies with a similar mix of real-time operational, technical, strategic and advisory responsibilities e.g. economic regulators, Bank of England, OBR, the future strategic rail body, NEST[5] etc. In ensuring effective strategic governance and accountability of the FSO – including its independence - we see a strong case for a public body – see below.

- **FSO incentivisation and ownership** – effective incentivisation and oversight by the regulator of SO revenues / returns through the price control process is not a new challenge and depends upon accountable delivery against agreed metrics (including social and environmental metrics)[6] plus strong incentivisation of the 'right' SO behaviours. The present ESO incentive seeks to address both. Our research has shown that the issue of behaviours (regulatory, utility) – and how law and regulation are interpreted and then implemented in practice – is particularly important.[7] Given the far-reaching nature of both the technical and strategic advisory roles set out in the consultation, successful incentivisation of the FSO involves a major new order of challenge. Above all, incentivisation must ensure that the FSO, funded ultimately by consumers through network charges, can deliver in the interests of consumers, communities and future consumers/citizens while being sufficiently funded to deliver well on its many new roles.

  As the consultation recognises, the nature of FSO incentives may vary depending on the ownership structure. In economic regulation, incentives are considered necessary to align company interest in profit with the interests of consumers. In the case of a public body this misalignment may not be material in the same way but other complex questions arise about suitable incentivisation approaches.

  In striving to be even-handed, the consultation addresses the central question of **FSO ownership** largely through the lens of incentivisation approaches. A main argument put forward for continued **private ownership** is the potential for better incentivisation (driving efficiency, innovation). Perhaps however, given the materiality of delivering on new whole-system and cross-vector planning, internal cost-efficiency may be a relatively second-order consideration, initially at least. But irrespective of potential upside from effective incentivisation of a private company, government must very carefully weigh some of the very material risk and complexity

[5] The Nest example is helpful here as being both an NDPB and a corporation. Our team have first-hand experience of these arrangements and would be happy to discuss

[6] See https://www.sustainabilityfirst.org.uk/images/publications/fair_for_the_future/25191_Sustainability_First_sustainability_metrics_report_v9.pdf

[7] https://www.sustainabilityfirst.org.uk/images/publications/fair_for_the_future/Briefing_paper_-_How_far_do_current_legal_and_regulatory_frameworks_in_public_utilities_deliver_for_sustainability__and_is_further_legislation_required.pdf

which private ownership of the FSO may present over time. Nor will such risks be static - independence (perceived or otherwise), 'fitness', business motive, accountability, national security (including overseas, other investors, cyber), onward sale (in-part, full), ring-fence against potential conflicts (i.e in the energy, transport or heat sectors and other parts of the expanding energy supply chain) etc. One matter to address but not raised in the consultation is the question of a government share in a private FSO.

For a **public body**, the consultation recognises the regulatory challenge of applying traditional financial incentives (for example, Network Rail), but there are other important considerations. A public FSO should resolve underlying tension about commercial independence and would also give more confidence that public-interest objectives and outcomes are clearly specified, acted-on and accounted for, including via the Strategy and Policy Statement. And despite not being a private company, an independent corporate body in the public sector could still have certain operational freedoms (funding, remuneration). A public FSO of course carries its own risks. In particular, a need for long-run financial stability and ongoing assurance of adequate funding, including for the FSO's expected significant IT spend (especially in light of project gateway oversight by HMT). There is also ongoing risk and uncertainty around retaining sufficient independence from government against unjustified short-term intervention or restructure. Nevertheless, precisely because of the pivotal strategic and advisory roles envisaged – together with new behavioural approaches and outputs required of the new FSO - **we conclude that this unique set of deliverables are on balance more likely to be successfully achieved via a public-sector corporate body.**

- **Guarding against unduly 'top-down' or overly-centralised approaches**. As a priority, immediate action is needed to improve close-working for whole system efficiency between the present ESO and DSOs - along with development of appropriate metrics to judge outcomes. Ofgem's DSO governance review, due to recommend changes by 2023, will tackle how FSO / DSO remits can be expected to better 'dock' than now - and will also consider the merit of greater structural integration. Based on our insight from the ED2 process so far, while DNOs still establish the DSO role, we would see it as premature at this point for the FSO to significantly take on DSO responsibilities.

- Also, a very important insight from ED2 - both for current ESO and for future FSO-approaches – is to guard against unduly top-down or overly centralised approaches to network planning, inevitably at one remove. This matters a good deal in a world where regional-, local- and place-based approaches to decarbonisation of transport and heat are central to a successful transition and net-zero delivery. Given this, a major question remains how best to develop a far more effective operational and planning interface, whether for the FSO or DSOs, with the devolved administrations, local government and community-led decarbonisation. In institutional terms, these bodies must now have a clear and formal 'seat-at-the-table'. Ensuring that regional and local drivers of decarbonisation feed-in directly and systematically requires much more attention by Ofgem and the companies, both now and for the future.

- **Guarding against a possibly unrealistic 'bucket list' of areas for which the FSO might take future responsibility**. The consultation sets out a 'long-list' of potential new activities for the FSO, which will be separately consulted. Some areas clearly play to FSO strengths : for example, advice for holistic design of offshore and onshore electricity networks, system operability, engineering advice in respect of supply security and, potentially, hydrogen network and CCUS planning. Others arguably less so, including possible major new responsibilities for network and

non-network tenders, aspects of future energy market-design, undertaking DSO functions, or advice on heat and transport decarbonisation. In practice certain strategic, planning, market-design, 'advisory' activities – including overseeing code governance and undertaking dispute-resolution - may well in the end sit better with others – be that government, the regulator, DSOs, the climate change committee or the national infrastructure commission. Not least, it will be very important to retain at least some diversity and depth of expertise and experience elsewhere – in BEIS, the CCC, Ofgem, DSOs – and not unduly diminish or side-line existing technical, analytical or commercial capabilities in those organisations. Importantly, these other bodies must also maintain the ability to understand - and on occasion challenge - the technical and strategic advice of the FSO. Moreover, there will also be a significant benefit in retaining an element of 'plurality' in viewpoints and voices beyond the FSO - across BEIS, Ofgem, CCC, the devolved administrations. This is important to avoid group-think, for good antennae on the 'unexpected', to encourage innovation and agility and to ensure accountability and guard against an unnecessarily dominant FSO.

- **FSO capability – IT and digital, data-access, and wider analytical skills and expertise for net-zero** - the consultation anticipates the FSO building on present ESO capabilities in ways which are 'technically expert' and 'operationally excellent'. Whole-system approaches to electricity operation – plus strategic forecasting and network planning (across electricity, gas and potentially hydrogen) – nevertheless require a major step-up – plus FSO access to far more granular data, especially on the demand-side. Not least, network-usage data beneath the transmission level is extremely patchy (electricity, gas). Also, and unlike DNOs, the present ESO cannot access smart-meter data – either to support its own operational or planning activity - or for future whole-system analysis. Sustainability First has looked extensively at the question of 'public interest' access to granular smart-meter data. We see a clear role for the FSO in coordinating this important demand-side data - across all DNOs – including for whole-system planning purposes - Access to smart-meter - delivering on the public interest – and Overview - DNO Privacy Plans on Smart Meter Data.

  In any case the FSO, together with DSOs and GDNs, will need to deliver major advances on current operational analysis of system-wide energy use, including through AI/ML. Adequate FSO digital and IT capability is central, including securing appropriate incentives and funding from Ofgem. As a priority, in the lead-up to establishing the FSO, Ofgem will need to address how best to establish and incentivise a sufficient system-wide digital capability. Similar considerations also apply to other areas of policy expertise / analytical depth – in particular where government or Ofgem may request targeted advice as per the consultation – which is relevant to the wider energy system and net-zero but involves matters where the present ESO may understandably lack current depth. For example, approaches to decarbonisation and emissions reduction, the impacts of strategic network planning for bio-diversity, new fuels including hydrogen, on heat-networks, small-customers, demand-side, built sector and energy efficiency, expertise on heat and transport decarbonisation.

- **End-consumer and citizen interests** – the consultation indicates that the FSO will be accountable to consumers and future consumers and able to support the delivery of net zero on behalf of the public and the impact of net-zero on vulnerable consumers. This element of the FSO role is arguably a significant shift of focus and accountability for a body without a direct business-interface with smaller end-consumers or, in general, the public at large. Thought is needed on how best to establish, undertake and subsequently evaluate what success looks like for this very important aspect of the FSO role – and how this role will interface with Ofgem's own primary

duties and responsibilities for consumers and future consumers, including Ofgem's goal of delivery of net-zero at lowest cost to consumers. For the FSO, this role would seem chiefly to require a deeper grasp of how end-customer issues, including delivering net-zero at lowest cost to consumers while protecting the wider interests of current and future consumers and a just-transition, needs to shape the strategic advice they provide to government, Ofgem, the CCC and others - rather than to develop a substantial end-customer capability themselves. Sustainability First considers that a focus on citizen and community interests - not only consumer interests - is important here. We have substantial experience in developing approaches to meaningful engagement for a just transition – Engagement – and Inclusion & a Fair Climate Future . We would be glad to contribute to BEIS and Ofgem thinking in this area.

If you would like to discuss the content of our response, please do not hesitate to get in touch.

Yours sincerely

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