Sustainability First

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Dear Ofgem

Ofgem Consultation : Open Letter (6 August 2019) **on approach to setting the next electricity distribution price control**

Sustainability First is a think tank and charity that works in the energy and water sectors. We have significant experience of consumer and public interest issues, regulation, sustainability and the demand side (see www.sustainabilityfirst.org.uk).

Unless we specify DSO, we use the term DNO to mean combined DNO and DSO activity.

Summary

In responding to Ofgem's consultation on approaches to setting the ED2 electricity distribution price control, we set out here our over-arching comments on the need for **Ofgem to shape a strongly future-facing and sustainable framework for ED2 through its approach to duties and incentives**. This extends beyond a narrow focus on driving greater efficiency and value-for-money in today's networks, to give **significant weight to shifting the DNO role to become far more future-focused to facilitate the transition**.

Inter al, this means **adopting ambitious regulatory approaches to frame : a pro-active network role for decarbonisation to net-zero**; **integration of digital-control at every network-level**; and **a DNO / DSO leadership role to further the development of regional, community and local approaches to energy balancing and supply**.

As we accelerate towards 'smart' – including more forms of electric transport and heat – **approaches to regulation must show a strong concern** not just for the opportunity but also for the **many customer-groups at risk of 'being left behind'** – be that businesses, communities, particular households or citizen groups. **We suggest a new incentive for 'smart- inclusion'**. This in turn poses the challenge - both for regulation and for the regulated companies - to find **new and transparent approaches to addressing matters of fairness,** including how best to bring forward key policy questions for decision by government.

Sustainability First highlights ten areas as important for ED2 duties and incentives :

1. Reshaping the DNO role to be future-facing
2. DNO / DSO duty to facilitate outcomes for net-zero delivery
3. Critical customer-facing outcomes :

- Customers in vulnerable circumstances
- Smart-inclusion
- Regional, community and local energy

4. DSO/DNO development
5. Distribution losses
6. Developing a broad and consistent environmental performance baseline
7. Approaches to risk and reward
8. Digital & data – realising the 'public good' aspects of DNO data
9. Enhanced engagement / demonstrating fairness
10. DNO culture and ambition

1. Reshaping the DNO role - Ofgem's ED2 regulatory strategy and framework

We generally support the overall direction outlined for the ED2 strategy and framework. Above all, this must provide the means to be **truly future-facing** as recognised in Ofgem's Strategic Narrative[1]. We understand Ofgem's stated aim 'to decarbonise to fight climate change at the lowest cost to consumers'. But, the combination of 'smart' development and the UK 2050 net-zero target **will require the role of the electricity distribution networks - including the very important DSO role** – **to be fundamentally reshaped for the future** via the ED2 framework, sector methodology and business plan guidance. The companies as monopoly providers of essential services and owners and developers of long-run electricity infrastructure must be fully confident in Ofgem's commitment to their strong enabling role and responsibility. DNOs need to feel empowered by Ofgem to take-on a reformed and central role to facilitate delivery of de-carbonised energy, heat and transport in a world which is digital, market-led, considerably de-centralised and, importantly, requires resilience against new threats, including cyber and environmental risks.

In formulating its strategy and framework for ED2, and given the NIC proposal for a change in regulators' duties on net-zero[2], Ofgem should err towards being bold – and use the opportunity to :

- **Spell out its own strong ambition for the electricity distribution networks to have a proactive facilitation role in enabling plural pathways to net-zero by 2050 - both for ED2 and beyond.**

- Design a **'shape-shifting ED2 package'** of licence conditions, price control deliverables, outputs and incentives **to frame and under-pin what Sustainability First and others would see as a sustainable licence to operate for the DNOs[3]**. Along-side continued pressures for cost-efficiency in network businesses, Ofgem's approach to standards and outputs will need to be transformational to align with the UK 2050 target for net-zero together with the UN Sustainable Development goals for 2030.

- **Clarify its own approach to regulatory risk in ED2** - including through undertaking its own direct stakeholder and consumer engagement. In the ED2 period, some complex trade-offs will arise

[1] https://www.ofgem.gov.uk/system/files/docs/2019/07/our-strategic-narrative-2019-23.pdf

[2] Strategic Investment and Public Confidence. National Infrastructure Commission. October 2019 https://www.nic.org.uk/wp-content/uploads/NIC-Strategic-Investment-Public-Confidence-October-2019.pdf

[3]https://www.sustainabilityfirst.org.uk/images/publications/fair_for_the_future/24071_F4TF_Fair_STRAWMAN_v8a_WEB_MID-SIZE1.pdf

on how far to invest now – even where that perhaps entails some uncertainty and therefore potential risk and cost to the customer - against the risk of creating higher costs for the future (capital costs, carbon abatement, environmental). Ofgem's standpoint needs clarity, particularly in the context of the NIC's recommendations on Net-Zero and resilience.

2. DNO / DSO duty in ED2 to facilitate outcomes for net-zero delivery

Two years ago, at the start of the RIIO2 process for ET/GT and GD, Sustainability First reviewed RIIO1 low-carbon incentives and outcomes. We showed how these lacked coherence, consistency and ambition and would need significant attention for RIIO2. The final sector methodologies and business plan guidance for ET/GT and GD in RIIO2 now incorporate new more demanding licence requirements for transparent environmental action plans and goals, requiring consistent and comparable reporting, including, importantly, on network-wide direct and indirect carbon emissions. This demands a more concerted effort from ET/GT and GD to demonstrate how they plan to reduce greenhouse emissions across their operations and investment approaches in RIIO2. Incentives are largely reputational, but in principle financial rewards are available for well-justified 'above and beyond' actions on emissions reductions**.** These changes represented progress at that point.

However, June 2019 signifies a major water-shed. The UK government recognised a climate emergency, and legislated for the new net-zero target for UK greenhouse gas and carbon emissions by 2050.[4] For ED2, this means that Ofgem, coordinating with BEIS, the Committee on Climate Change and the National Infrastructure Commission, must now factor this step-change into the trajectory for national carbon-emission reductions into its approaches to DNO regulation. Ofgem must therefore :

- **Frame its ED2 strategy and framework to recognise the climate emergency** – so that responsibilities and incentive arrangements for DNOs in the ED2 sector methodology and business plan process **align with the statutory 2050 net-zero target**.
- **Give a core enabling-duty to the electricity distribution networks in delivery of low-and no-carbon outcomes for electricity supply and consumption.** DNOs have a central facilitation role in achieving net-zero, including in relation to future heat & transport. Ofgem must explicitly recognise this in the duties and incentives of DNOs and thereby transform and reinforce this future-facing role.
- **Consider the need to reform present DNO / DSO non-discrimination duties to promote flexibility and to favour low or zero-carbon technologies and approaches** (for connection, for despatch).
- **Require DNOs to continue to collaborate with other networks and stakeholders in producing scenarios to form a 'credible view' of the DNO contribution towards net-zero.** In broad terms, this means producing (1) overall options for detailed investment trajectories for the decade ahead to the end of ED3 and also (2) at a granular level for each separate DNO area. Inter al, this to inform revised Long Term Development Statements plus creation of new regional and local area energy plans. To develop a credible 'future view' for ED2, DNOs need to be incentivised to

[4] Climate Change Act 2008 (2050 Target Amendment) Order 2019
http://www.legislation.gov.uk/uksi/2019/1056/made

actively partner and collaborate, including on resolving whole-system and 'boundary' issues with other networks and other stakeholders – including cross-vector.

3. Key customer-facing outcomes for ED2

ED2 will continue to require high standards of customer service, network resilience and efficiency. In addition, Sustainability First sees **three critical areas** for regulatory focus i**n delivering better customer-facing outcomes in ED2**. These are :

3.1 **Customers in vulnerable circumstances :** Ofgem should **continue to stretch DNO and DSO ambition** on ensuring **resilient and more responsive services** for electricity customers in vulnerable circumstances. This means continued recognition of the dynamic nature of vulnerability, recognition that customer vulnerability extends beyond energy into other parts of our lives, and accordingly expecting DNOs to deliver significantly better and concrete outcomes in ED2, both on **cross-utility and cross-agency coordination and response**. Our Fair for the Future project has explored cross-utility approaches to this issue in Australia.[5]

3.2 **'Smart- inclusion' incentive -** some customers are at significant risk of being 'left behind' in a smarter more transactive world. Innovation in demand-side flexibility is a competitive and market-led response. But, as monopoly infrastructure, DNOs have a core task of promoting flexibility on their networks for efficiency and for carbon reduction. From a fairness standpoint, it may therefore be warranted **to incentivise DNOs to support inclusive outcomes on smart**. For example, outcomes which :

- **Promote inclusive approaches** to serve the needs and aspiration of all DNO customers and stakeholders in a world where flexibility has an efficiency and carbon benefit and hence a growing commercial value
- **Reward DNO actions to identify those who may need additional support or intervention**, so that all customer groups and stakeholders – individually and collectively - are able to share in the future benefit and opportunity that network flexibility is expected to bring. This might be households – especially those in vulnerable circumstances; excluded or forgotten communities or particular regions; certain industry sectors or business customers – especially small enterprises. Being 'left-behind' might be an investment question (network costs / charges - access, connection; technology-related). Or, might be due to customer constraints in offering a flexible response at certain times or at certain network locations.
- **Ensure effective communication and collaboration on who is at risk of being left-behind and why.** DNOs certainly cannot solve all such challenges, but in practice they can be **an important barometer as to which customers on their network - and where - are at significant risk of being left behind and excluded from new markets and opportunities**. DNOs need to foster an environment where potential solutions for such customers can be identified, communicated and addressed – including through the actions of others and through their signalling of the need for wider policy and regulatory change. ED2 incentives should support this activity.

[5]https://www.sustainabilityfirst.org.uk/images/publications/fair_for_the_future/SF_The_Thriving_Communities_Partnership_Case_Study_26.3.19_FINAL_1.pdf

3.3 **Strengthen the DNO regional role : a new incentive to promote community and local approaches to energy balancing and supply** : the assets and geographic footprint of each electricity distribution network represent a major 'public good'. Rapid progress towards a net-zero and decentralised world, and a smooth and cost-efficient energy transition will require significant new collaboration and coordination at a regional and local level. The NIC report notes how regulation must better reflect the powers of devolved and regional government. Similarly, DNO and DSOs must develop their role as a significant regional player. **DNOs should be appropriately incentivised on specific outcomes for a regional leadership role**. Ofgem, informed by the enhanced engagement process, should also clarify the realistic boundaries of what should be directly customer-funded in this area – and what funded by other means. But broadly Ofgem should incentivise DNOs to :

- **Step-up to a bigger regional role on low-carbon facilitation and green growth and development** – through fostering stronger relationships in their geographies with the devolved governments, regional and metro-mayor administrations and local authorities – plus other utility services and regional agencies. To support the transition to net-zero, DNO relationships must extend beyond those of a traditional utility provider – and for which regulatory recognition is necessary.

- **Demonstrate specific outcomes in support of regional- and community-energy** – to show how the DNOs actively under-pin regional green-growth and community energy strategies, including in support of the legitimate ambition and initiatives of others (statutory and delivery bodies - including on transport).

- **Catalogue major barriers to regional, community and local delivery** – including where DNOs or DSOs have agency to 'unblock' steps needed. And, where not, to consider together with others best next-steps to resolve.

4. **DSO / DNO**

A core future facing DSO/DNO role will be to accommodate new forms of decentralised supply and demand (eg distributed generation / local renewables / CHP etc, EVs, batteries, electric / decarbonised heat). Inter-acting with local and transport interests is key to this. DNOs will of course therefore need to continue to make the case in ED2 for new capital investment where this has a role (new homes post-2025; possibly electric heat and EV-load-related spend and / or where customer flexibility does not suffice for peak response). Five-year controls seem appropriate for DNO capex, although more agile approaches to some opex spend may offer efficiency.

The DSO role is central to neutral promotion of energy system flexibility, to revealing flexibility value and cost-efficient innovation and to enabling a smooth transition. It is critical to get this 'right'. The following points are relevant :

- We agree with Ofgem that incremental and evolutionary approaches to delineation and separation of DNO and DSO operations and roles makes sense for the ED2 period. Not least to understand the continuing costs and benefits as between integrated and separated roles (including the potential costs of delivering full separation). For ED2 it is therefore important to gain more practical experience of the future DNO and DSO roles in neutral facilitation of

network and system needs out to 2028, including via separate accounting, to inform how the DNO and DSO roles should evolve into ED3.

- One particularly important function of the DSO will be that of overview and coordination – in both planning and operational timescales – both across its own footprint and also at the intersects with the ESO and other networks (transmission, distribution). A careful balance is needed by Ofgem to promote competitive approaches to drive efficiency and innovation – yet at the same time to safeguard coordinated approaches which support the energy transition (see point on competition – section 10).

- For DSO activity, ED2 regulation should actively incentivise facilitation and promotion of flexible services on the network where practicable through both price signals and contracted flexibility. This includes exploring different ways to test for non-build alternatives, although in the end, from a customer stand-point there will be a wish for cross-DNO consistency, and which the Open Networks project recognises. Importantly too, from a customer standpoint, an awareness of those at possible risk of being left behind in a smart world matters. See our earlier points in section 3.2 on a **'smart inclusion' incentive.**

- For DSO-related opex, shorter more agile incentive approaches may be beneficial, and should draw on the lessons of the approach adopted for the NG ESO.

- For both the DNO and DSO, regulation must reflect a **high ambition for modernisation through rapid integration of digital control and innovation into business-as-usual -** to shape, future-proof and ensure net-zero outcomes within appropriate timescales.

- **Approaches to charging reform** – and in particular access and forward-looking charges – will in turn impact considerations relating to (1) changing the connection boundary and also (2) to ED2 load-related network investment (i.e. if customers respond flexibly in response to future access or capacity charges, this may reduce the need for price control expenditure on load-related reinforcement). Ofgem acknowledge in their DSO position paper that the **charging reform and ED2 programmes need active integration,** and we agree**..**

5. **Distribution Losses – ED2 treatment**

The Ofgem Open Letter seems not to refer to future regulatory approaches in ED2 on loss management. Distribution losses continue to have both a significant economic and environmental impact and represent approximately 1.5 per cent of GB greenhouse gas emissions[6]. Loss management is complex and has been a difficult area 'to get right' in previous distribution price control discussions. For ED2, Ofgem should consider :

- **A review of ED1 outcomes on losses** – the ED1 losses mechanism has four components: a licence obligation, loss reduction expenditure in the business plans, annual reporting and

[6] In 2018, all losses (transmission and distribution) were 26 TWh, equal to 7.3% of total demand (352 TWh). Of these, distribution losses amounted to 19 TWh : so, 71% of total losses. (Final consumption of electricity in 2018 was 300 TWh).

DUKES chapter 5: statistics on electricity from generation through to sales
July 2019 update. p. 83 para 5.13

discretionary reward. Ofgem should review ED1 outcomes on losses to inform whether change may be beneficial for ED2, especially in relation to net-zero.

- **DNO / DSO separation and losses** - Ofgem should also consider the likely impact of increasing DSO and DNO separation on integrated management of distribution losses, including the potential for loss of significant benefit

- **Losses reduction compared to SF6** – Ofgem should assess how the marginal NPV of reducing distribution losses stacks up against investments for SF6 reduction to identify areas for priority action and focus.

6. **Developing a broad and consistent environmental baseline**

ED1 introduced a welcome and new standard licence condition for DNO annual environmental action plans and reports. ED2 must continue to require companies to provide a broad environmental baseline for reporting. And, to enable a whole system view, DNO EAPs and annual reports must align with the new RIIO2 business plan requirements for transmission and gas distribution, including for direct and indirect emissions. The UN Sustainable Development Goals can provide a helpful framework and starting point. In addition to the carbon related points raised elsewhere in this response, environmental activity reports (as for RIIO2 ET, GT & GD) should include:

- Business carbon footprints – framed against scope 1,2 and 3 emissions
- Embedded carbon
- Losses (see section 5)
- Supply chain/product life cycles
- Construction, resource use and wider waste
- Biodiversity/natural capital
- Visual amenity (e.g. pylons)
- Air quality

7. **Risk and Reward in ED2**

We note that there has been outperformance in ED1 over an eight year period (Open Letter Annex 2, page 32) and understand that Ofgem will need to factor this into their approach for ED2. Looking forward, we wish to make the following points on regulatory approaches to risk and reward in ED2:

- **Price control period** - uncertainty will attach to some investment anticipated in ED2. Reducing the price-control period to 5-years helps to reduce that risk. Some opex-related spend and DSO allowances may warrant shorter incentives.

- **Ofgem need to address *total* expenditure and returns in the round** – and **consider the balance** between base-revenues, output-related expenditure and incentives for ED2. To encourage a step-change in DNO facilitation of the energy transition, **this balance may look significantly different from ED1** (e.g. for incentives and outputs which support net-zero, innovation, digital integration, smart-inclusion, collaboration).

- **Approach to returns** - there are good arguments to support an approach where 'base revenues' may warrant lower returns, and riskier investments with greater complexity or higher costs potentially to attract higher returns - or be subject to uncertainty mechanisms. If higher rewards are available to companies for higher risk activity, the benefit should also be shared with customers. Companies should not expect customers to fund the full downside of such higher-risk activity, but must absorb some of that risk themselves.

- **Uncertainty mechanisms –** are important to safeguard against unexpected windfalls in ED2 (but we have no comment on specific mechanisms)

- **Strategic investments** - investment for strategic challenges will be necessary in ED2, and a separate funding pot may well be warranted. Business plans must justify the detail, including on 'optionality' and avoided 'lock-in'. It may also be helpful to take an *incremental approach* to some options-related investment *across price control periods* (e.g. via phased procurement). With 'need' for strategic investment established – be that via the DSO (or DNO) - such investments may be open to competitive arrangements.

- **'Highly anticipatory' investment** – ED2 and ED3 will need to 'seed' new investment for which the customer benefit may take many years to materialise (smart, net-zero related, cross vector). ED2 regulation should recognise such potential long-run benefits via bespoke incentives for 'above-and-beyond' outcomes, well-tested with stakeholders and CEGs, including through the business plan process. As a broad principle however, we would question how far customers should take a major risk on investment which is 'highly anticipatory'. Such investment may initially best be developed outside the regulated asset base, so that risks and rewards better reflect market conditions. This approach also enables DNOs to partner with others in special purpose vehicles.

8. DNO Digital & Data Strategies – incentives to realise the 'public good' aspects of DNO data

Since publication of the Energy Data Task Force report in June 2019[7], given the 'presumed open' principle, DNOs - individually and collectively - are now examining the market-facing data-assets they hold. This initial cataloguing is welcome – and is recognition of the fundamental role for data and information in development, operation and innovation of future energy markets. Ofgem has therefore recently revised the RIIO2 business plan guidance (for ET/GT and GD)[8], and, for the first time has outlined its own preliminary thinking in RIIO2 for the networks to modernise their energy data and develop digitalisation strategies. For ED2, Ofgem can therefore be expected to take a similar approach towards data strategies for the distribution networks.

[7] 'Energy Data Taskforce: A Strategy for a Modern Digitalised Energy System'. BEIS, Ofgem & Energy Systems Catapult. June 2019
https://es.catapult.org.uk/news/energy-data-taskforce-report/

[8] RIIO-2 Business Plan Guidance. Updated 9 September 2019
https://www.ofgem.gov.uk/system/files/docs/2019/09/riio-2_business_plans_guidance_september_2019_-_published_0.pdf

Sustainability First has a particular interest in **the 'public good' aspects of the data held by the monopoly energy networks – both market-facing and customer-side data** – and how best to incentivise the networks to make the data they hold available for a 'public good' benefit to support a sustainable and fair transition (subject to commercial, cyber and privacy considerations). Some particular points for Ofgem to consider are :

- **For market-side data :** a likely need **for DNOs to be incentivised to collaborate** to produce market-facing **data which is comparable across networks – and which can also build a national picture**.
- In support of Ofgem's **'best practices for data'** (interoperability, visibility and accessibility) a need for **DNO data-strategies to be shaped together with other market-actors, experienced market-reporters and data-science experts.**
- **For customer-side data.** DNOs are agreeing privacy plans with Ofgem to allow them access to anonymised and aggregated smart-meter consumption data, to allow them to support improvements in their own planning activity (this is in addition to customer-data to which they already have access). The Sustainability First & CSE PIAG project[9] has looked at the role of smart meter data as an **unrealised public good**. A main conclusion is that, in addition to DNO market-side data, **DNOs need to recognise the 'public good' aspect of the customer-side data they hold – both within their own geography, and also as a potential national resource**. DNOs are uniquely placed in their access to comprehensive and accurate geographic customer-side data. **Alongside their work on market-facing data, ED2 needs to incentivise DNO collaboration to explore how customer-side data, suitably anonymised and aggregated via a trusted processor, could become available to serve the public interest as a regional and national resource.**

9. **Enhanced Engagement / Approaches to Fairness**

Sustainability First is a long-standing advocate of the enhanced engagement process for RIIO2 – and has direct experience of the process. Inevitably for ET/GT and GD there have been teething problems as the consumer engagement groups, the Ofgem challenge group, Ofgem and the companies have felt their way. Also, inclusive and successful engagement requires resource commitment. Some issues will need addressing for ED2 – and the overall costs and benefits of enhanced engagement will need independent evaluation. Nevertheless, so far this seems to :

- Offer the benefit of wider and greater accountability at both the regulator and company level and help all parties develop a more customer focused culture.
- Produce better outcomes than otherwise in terms of challenge to the RIIO2 framework and methodology
- Shape business plans which are materially better, more transparent, more consensual and more inclusive than otherwise due to stakeholder input and scrutiny
- Serve to create a welcome and significant cohort of better-informed energy-sector stakeholders, including on some technical aspects of network price regulation.

[9] 'Access to smart-meter data for a public interest purpose'. PIAG (Public Interest Advisory Group). Sustainability First & CSE. https://www.smartenergydatapiag.org.uk/

Engagement should not end with price control review process. Meaningful engagement should be resourced and integrated into company and Ofgem business-as-usual – both to review business plan outcomes, and especially to review progress on customer-facing outcomes and goals in environmental action plans. Continuing stakeholder engagement should also be used to test difficult questions around trade-offs, in particular regarding the costs of the transition, who should pay and how.

In particular, on matters relating to fairness in ED2, Sustainability First would propose that Ofgem, together with BEIS, consider more generally their approach to a wide and inclusive stakeholder debate about trade-offs around what is fair in terms of cost and service for the energy transition. Our Fair for the Future project is addressing the issue of the politics of fairness and the environment in the energy and water sectors,[10] our recent 'What is Fair' paper has an assessment of some of the distributional fairness aspects of fairness in the energy transition[11] and our recent blog has an assessment of deliberative engagement approaches such as citizens juries and assemblies to address questions such as who pays for the move to net zero.[12]

10. **DNO culture and ambition – regulatory approaches**

The Sustainability First Fair for the Future project has developed a strawman sustainable licence to operate – including a better understanding of sector risk. From this we would draw the following early lessons for regulatory approaches :

- **Regulation needs to stretch DNOs to adopt new approaches which take them beyond doing their essential service role very well.** For ED2, Ofgem need to adopt more ethical and 'principles-based' approaches to network regulation, capable of embedding new ways of working in network companies which seriously 'stretch' current DNO culture. This must also entail less regulatory complexity and micro-management.

- **Approaches to competition –** we agree that competitive approaches to network services and investment can promote efficient and innovative outcomes. But, regulatory approaches also need to factor-in the risk of undue atomisation to an efficient transition. From both a consumer and citizen standpoint, it will be important in ED2 to avoid excess fragmentation through competitive approaches if this in turn undermines DNO and DSO capacity to take a strong strategic and enabling role across their geography. As noted, DNOs are uniquely well-placed as a main regional player to shape approaches to net-zero delivery. Collaboration - across a wide variety of actors - can also be important. To maximise the delivery of public interest outcomes, it is therefore important to harness the benefits of both markets and partnership working (see also section 4 on DNO/DSO).

- **ED2 needs to prioritise and incentivise transformative company strategies which are future-facing and modernising. This includes 'above-and-beyond' actions and outcomes : in support of net-zero** (e.g. emission reduction, cross-vector); **on integrating digital control**

[10] https://www.sustainabilityfirst.org.uk/fair-for-the-future

[11]https://www.sustainabilityfirst.org.uk/images/publications/other/Sustainability_First_Future_Energy_Market_Discussion_Paper_September_2019.pdf

[12] https://www.sustainabilityfirst.org.uk/blog/what-should-a-uk-citizens-assembly-on-climate-change-and-net-zero-look-like

and open approaches to data, on innovation, on resilience (operational, climate-related mitigation and adaption, cyber), and for **wide-scale collaboration and partnerships**.

- **Network Investors** – senior managements need a full understanding of their investor risk-appetite for their business. This includes investor approaches to the 2030 Sustainable Development Goals and to Environment, Social and Governance factors (ESG). Management must ensure that investors as owners of electricity distribution companies are fully aware of - and on-board with - social, customer-facing and net-zero commitments. Investors in essential GB utility services must fully understand how ESG factors translate into the UK utility context and how ambitious approaches to ethical regulation and net-zero may shape returns in ED2 and beyond.

We also attach as an annex, brief responses to some of the specific questions raised in the consultation where we have evidence or views.

For this submission we draw on recent Sustainability First work : on innovation and energy customers in vulnerable circumstances[13]; on RIIO2 approaches to incentivising low-carbon[14]; on fairness and costs of the energy transition[15]; on developing a sustainable licence to operate for the energy and water sectors – including a clearer understanding of sector risk[16]; on access to smart-

[13] 'Energy for all – Innovate for all'. Sustainability First report. January 2018.
https://www.sustainabilityfirst.org.uk/inspire and
Ofgem's draft consumer vulnerability strategy to 2025. Sustainability First response. August 2019
https://www.sustainabilityfirst.org.uk/images/publications/consultations/Sustainability_First_response_to_Ofgems_Consumer_Vulnerability_Strategy_-_final.pdf

[14] A low-carbon incentive in RIIO2. Sustainability First discussion paper. May 2018.
https://www.sustainabilityfirst.org.uk/images/publications/other/Sustainability_First_Low_Carbon_Incentive_in_RIIO2_DIscussion_Paper_FINAL_web.pdf - and -

Ofgem RIIO2 Methodology Consultation. Treatment of Environment, Sustainability & Low-Carbon. Sustainability First response to Submission to Ofgem. February 2019

https://www.sustainabilityfirst.org.uk/images/publications/consultations/Sustainability_First_-_Ofgem_RIIO2_Methodology_-_Environment_Sustainability_and_Low_Carbon_-_final_v_260219_.pdf

[15] 'What is fair? How should we pay for the energy system of tomorrow?'. Sustainability First discussion paper. September 2019
https://www.sustainabilityfirst.org.uk/images/publications/other/Sustainability_First_Future_Energy_Market_Discussion_Paper_September_2019.pdf and
BEIS / Ofgem consultation on flexible and responsive energy retail markets. Sustainability First response. September 2019
https://www.sustainabilityfirst.org.uk/images/publications/consultations/Ofgem_retail_SF_response_FINAL.pdf and
Ofgem consultation on consumer impacts of half-hourly settlement. Sustainability First response. March 2019

https://www.sustainabilityfirst.org.uk/images/publications/consultations/Ofgem_HHS_Sustainability_First_response_27.03.19.pdf

[16] Fair for the Future : Framing a 'Sustainable Licence to Operate' for the water and energy sectors. Sustainability First. Multiple project papers. October 2018 – ongoing
https://www.sustainabilityfirst.org.uk/fair-for-the-future

meter data for a public interest benefit [17]; and on future regulation[18]. We also draw on the considerable experience among Sustainability First associates of the RIIO2 process to date. This stems from our direct participation in the enhanced engagement process : both in the Ofgem challenge group and in company consumer engagement groups. We also draw on our experience as advisers to the Power Responsive programme, a major initiative led by the NG ESO, designed to market-make and create awareness among both market actors and large customers of the benefits to both them and the electricity system of demand-side flexibility.

Yours faithfully

Sharon Darcy

[17] 'Access to smart-meter data for a public interest purpose'. PIAG (Public Interest Advisory Group). Sustainability First & CSE. https://www.smartenergydatapiag.org.uk/

[18] 'Circling the Square: Rethinking utilities regulation for a disrupted world'. Sustainability First discussion paper. March 2019
https://www.sustainabilityfirst.org.uk/images/publications/other/SF_Future_of_utilities_regulation_Discussion_Paper_FINAL.pdf
Call for Evidence. National Infrastructure Commission. Future of Regulation Study. Sustainability First response. April 2019.
https://www.sustainabilityfirst.org.uk/images/publications/consultations/Sustainability_First_NIC_Future_of_Regulation_Call_for_Evidence_FINAL_12.4.19.pdf

ANNEX - ED2 Open Letter. 6 August 2019. Responses to Ofgem questions

1. Do you have any views on the proposed objective for RIIO-ED2?	We broadly support the overall ED2 objective. This needs to ensure a step-change to a **strongly future-facing and sustainable framework for the distribution networks**. This needs to explicitly acknowledge the core enabling role of DNOs and DSOs in the transition to net-zero and in facilitating smart and flexibility through new duties.
2. To what extent should we take into account outcomes linked to decarbonisation targets, and what outcomes might this involve?	Commitment to net-zero by 2050 signifies a major water-shed. Outcomes for ED2 must reflect this step-change. DNOs need to facilitate plural pathways to carbon-reduction for power, heat and transport.
3. Are there activities that DNOs are best placed to carry out in order to achieve these outcomes? What are the alternatives? Why would it be appropriate for energy consumers to fund these activities?	DNOs have a core enabling role in facilitating zero-carbon power, heat and transport. In particular, they have a crucial role as regional players and leaders. It is appropriate for energy consumers and future consumers –for consumers to fund DNO activity which incentivises facilitation, collaboration, and regional partnering where this enables timely progress towards net-zero. Both Ofgem and companies should consult stakeholders on the 'boundaries' of what consumers should fund in engaging in a more prominent regional geographic role in achieving net-zero.
4. How should we assess DNO funding requirements and measure DNO performance in these areas?	A balanced package of ED2 licence standards, deliverables, outcomes and incentives should shape-shift the DNO and DSO roles to prioritise well-justified future-facing capex and opex where these clearly facilitate flexible responses and support carbon reduction. Annual environmental action plans and reports should be used to measure progress on emissions performance.
5. How should we incentivise DNO performance when the achievement of outcomes could be dependent on the actions of others?	DNOs / DSOs should have incentives to facilitate, collaborate and partner to deliver measurable outcomes. Sustainability First explored these challenges in its discussion paper on a Low Carbon Incentive and proposed an approach that was based on a combination of qualitative and quantitative approaches to incentives, building on the current ESO incentive arrangements.
6. How do we ensure that network companies are best placed to undertake strategic investment and manage the associated risk? How should the risks of these investments be managed?	See section 7 - Inform and test through robust engagement and stakeholder involvement. We refer to the work done by Grid Edge Policy in their paper on Real Options Assessment that explores some of the issues around investment under uncertainty.

9. Is there a need to separate out the revenues and outputs for 'traditional' DNO functions from DSO functions? How could this be achieved?	See section 4 in our covering letter. We agree with Ofgem that incremental and evolutionary approaches to delineation and separation of DNO and DSO operations and roles makes sense for the ED2 period. We agree with Grid Edge Policy that it is important that the DSO is seen as a neutral market facilitator and companies should not put barriers in the way to unbundling should that prove to be justified in future.
12. In what ways could the existing arrangements drive more innovation and competition?	Section 8 of our covering letter refers to the importance of digital and data strategies in the context of innovation. We agree with Grid Edge Policy that a clearer sense of where government funding for innovation is appropriate (as distinct from funding through the price control) would be helpful.
Q 15 – 17 Data	See Section 8 of our covering letter

18. We welcome views on our proposed position of a five-year price control for RIIO-ED2.	Uncertainty will attach to some investment anticipated in ED2. Reducing the price-control period to 5-years helps to reduce that risk.
19. Are there any elements of RIIO-ED2 price control that we should consider setting over a longer or shorter period? Please give reasons.	Some opex-related spend and DSO allowances may warrant shorter incentives.
20. We welcome views on whether these enhanced engagement arrangements are appropriate for RIIO-ED2.	See section 9 of our covering letter
21. We welcome views on whether the proposed output categories and incentive arrangements are appropriate for RIIO-ED2.	See sections 2, 3 and 6 of our covering letter We also support Grid Edge Policy's comments on setting incentives on a relative basis
23. We welcome thoughts on how to ensure that we continue to protect the interests of vulnerable consumers, particularly in light of the energy system transition.	See sections 3.1 and 3.2 in our covering letter – and note our recommendation on the creation of a 'smart inclusion' incentive
25. We are interested to hear stakeholder views on how DNOs should ensure their networks are resilient to physical and/or virtual threats, as well as being able to	See sections 1 and 2 in our covering letter

withstand the effects of adverse weather and the impacts of climate change.	
28-30 Environment / net zero	See sections 1,2, 5 and 6 in our covering letter. We agree with Grid Edge Policy that for wider aspects of the companies' business carbon footprint there is real value in a consistent approach being taken to Environmental Action Plans and annual reporting as applies for GD2 and T2. This will make it easier for stakeholders and reinforce the reputational incentives that are being relied on in this area.
33-35 risk and uncertainty	See section 7 in our covering letter
40 – 41 competition	See section 10 in our covering letter