

# Sustainability *first*

Email : [Maxine.frerk@sustainabilityfirst.org.uk](mailto:Maxine.frerk@sustainabilityfirst.org.uk)  
[Judith.ward@sustainabilityfirst.org.uk](mailto:Judith.ward@sustainabilityfirst.org.uk)

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To: flexibility@ofgem.gov.uk

Dear Ofgem Flexibility Team

## **Future of Local Energy Institutions and Governance – Call for Input**

Sustainability First is a think-tank and charity with a focus on social, environmental and economic issues in essential services and in particular energy and water. We have significant experience of the RIIO price control process through involvement in the Ofgem Challenge Group, Consumer Engagement Groups and Ofgem working groups. We have also carried out significant work on how regulatory models need to adapt to meet the challenges ahead.

Thank-you for the opportunity to contribute to this Call for Input on the effectiveness of institutional and governance arrangements at the local level. While we have sought to provide answers to the specific questions posed in the consultation where we have relevant expertise, there are a number of more fundamental points that we believe it is important for Ofgem to address as it reflects on the way forward.

In our view, success in net-zero delivery, including ensuring an inclusive transition, will require Ofgem to look well beyond the scope of this narrowly framed document. In particular:

- Any institutional arrangements at a local level aimed at addressing net zero have to look **more widely than just at energy**, to include heat and transport. Clearly this is not within Ofgem's gift and needs work across government which Ofgem acknowledges but without there being any clear mechanism for taking such work forward; and
- Even in the narrower context of energy there is a need to think more broadly about **potential future challenges to the energy system**, not just the immediate and narrow questions of conflicts of interest and the development of flexibility markets.

Ofgem's aim should not be to try to pick a particular model at this point but to think about an adaptive approach, focusing now on decisions related to ED2 and improving co-ordination with local government on an informal basis. Decisions about more radical change can be left until the evidence is clearer.

We expand below on these themes. We have then attached answers to the specific questions Ofgem raises.

### **Looking beyond energy**

In considering reform of energy institutions and governance to drive de-centralised and local net-zero delivery in cost-effective ways, Ofgem must work across government and look well beyond the energy sector. As Ofgem acknowledges, reaching net zero requires decarbonisation of heat and

transport, which will be locally driven but have significant implications for energy systems. It is impossible to think about local planning of gas systems without thinking about the approach being taken on heat, where local decision making will be key. Delivering smart, local electricity systems requires careful thought about integration of EV charging and flexible heat at a local level. The key missing element in the institutional framework for delivering net zero is therefore some way of bringing these different local actors together. This may not need new institutions but it is clear that local authorities do not have the resources or all the relevant expertise required. The DNO plans for ED2 all included (different) ideas for how they could support local authorities in developing local area energy plans. A clear vision from Ofgem for how this could be made to work should be a priority in thinking about local institutional arrangements.

As Ofgem acknowledge, this requires them to work across BEIS, DLUHC, OZEV and the devolved administrations but it is notable that this call for input stems simply from Ofgem. Visible and active engagement with the rest of government is vital.

In particular Ofgem should consider how the narrow energy-system framing in this document aligns with the far wider institutional reality of delivering GB building-related goals as outlined in BEIS's [Heat and Buildings Strategy](#) and also the Scottish government's [Heat in Buildings Strategy](#). As a part of that Ofgem needs to consider how the major 'real-world' challenges of delivering low-cost heat decarbonisation – be that at the level of households, business, communities, the supply-chain, building developers, government and / or third-parties charged with heat and buildings policy delivery (national, devolved, metro, regional, local) – would read-across and dovetail with the four 'planning-oriented' models outlined by Ofgem.

For example, BEIS has consulted on an approach of "[heat zoning](#)" to identify areas where heat networks are the lowest cost, low carbon solution for decarbonising heat. The consultation envisages DNOs and GDNs playing a key role in this.

Similar issues relate to planning for electrified transport.

### **Wider view of the energy system**

The Call for Input says it is taking a broad view of the energy system which is welcome – but, in practice, the document is very narrowly framed in only addressing supply-side issues and focussing on a narrow set of challenges.

In particular the Call for Input only looks at:

- Three functions of a system operator: energy system planning; market facilitation of flexible resources; and real-time operation of local energy networks.
- A narrow set of concerns: DSO conflicts of interest (perceived and actual) and promotion of flexibility markets
- Four high-level governance models which are each narrow in concept, focussed on the functions and concerns identified.

In thinking about such radical steps as institutional reform there is a need to think more widely about the scope of the role and potential evolution of the energy system. Ofgem should test that any proposed reforms would continue to make sense in a range of different futures and that the proposals are addressing the full range of issues, not just those that are top of mind for Ofgem today.

*Need to consider a wider set of issues / concerns*

**How to ensure an inclusive transition and address vulnerability in thinking about local institutional or governance arrangements:** The document does not mention this issue, despite vulnerability strategies having a strong emphasis in ED2 and the very strong focus generally placed on “no-one left behind” as part of the commitment to a just transition. Vulnerability innovation is specifically identified as an Ofgem priority for RIIO2 innovation funds and could contribute to development of more inclusive institutional models for local system operators in the future.

**Recognition of the major contribution that energy demand-reduction and energy efficiency must surely make towards cost-efficient whole-system net-zero delivery.** In the 45-page document, there is only a single reference to energy efficiency (in a footnote). Thermal insulation should be seen as an important means to reduce costs across the future energy system – both by reducing costs to customers (and the overall system capacity requirements) but also as a necessary enabler of heat flexibility. Given LC 31E on DNO energy efficiency promotion and procurement, Ofgem should include within the core system operator functions the steps that DNOs and DSOs might take to meet this requirement.

**Customer and stakeholder engagement.** As part of RIIO Ofgem has placed a heavy emphasis customer and stakeholder engagement and this is particularly important at a local level where plans can impact on delivery of local net zero ambitions. It is hard to see how this local engagement could be done effectively at the level of a national system operator.

*Need to consider a wider set of possible futures*

**In a significantly more ‘place-led’ energy world, the ‘best-balance’ between the ESO (FSO) and DSO roles will be different and will evolve.** We agree that the ESO-DSO roles must dock more effectively than they do today, in terms of common whole-system goals and a whole-system view. However, the document seems to point to a number of top-down local functions potentially falling increasingly to the ESO – including perhaps both planning and market facilitation (model 4). This does not ‘ring true’ in a world where net zero energy system challenges may increasingly be regionally or locally driven, meaning they would be better understood and handled at the DSO level. The Energy Systems Catapult work on [Local Area Energy Planning](#) highlights the importance of this place based approach.

**The role of automation changes the nature of system operation.** In the future, greater automation, including autonomous AI systems for frequency and voltage control of small-scale flexible assets, could fundamentally change the role both of system operators and aggregators as highlighted in the recent report from the Energy Systems Catapult on the [Zero Carbon Operability Challenge](#) (which also points to a range of other ways in which the system operator role might need to evolve).

**Other regulatory / policy models currently being considered could change the key assumptions.** The Call for Input is based on a model of the system operator procuring flexibility services. However there are also models in which the market moves to be much more based on bilateral trading (as some innovation projects have explored) – or alternatively where price signals become more locational and become the primary driver of demand response (rather than being procured through tenders). Any proposed institutional reform should be robust to such changes.

**The widening energy ecosystem reinforces the crucial role of engagement.** In the future, DNOs and DSOs are likely to need to ‘dock’ and coordinate not just with local authorities but also very many more ‘bottom-up’ demand-side stakeholders. Among other things, this includes regional and community-led initiatives on transport and heat, delivery of energy efficiency, peer-to-peer trading, EV charging infrastructure and housing developers.

## Timing and priorities

In looking at the different options Ofgem has rightly highlighted ease of implementation as a primary consideration, including in particular whether primary legislation would be required. We would strongly encourage Ofgem to move forward with steps that can be taken now if they take us in the right direction and support the wider public interest goals that underpin Ofgem's ambitions for the DSO. As such the aim should not be to pick one of the proposed models now but to set out an evolutionary pathway.

In terms of priorities, we would highlight four areas where decisions need to be taken as part of the ED2 process which are important in the context of this local governance question:

- **There is an urgent need to reconcile the six very different DSO business models described in the ED2 business plans.** Company DSO strategies cover a wide range from putting a strong stress on continuation of the 'integrated benefits' of the DNO/DSO to rapid set-up of a fully separated DSO with a view to spin-off. It is unclear how the thinking on 'governance' outlined in this Call for Input will impact on the approach Ofgem takes to ED2 Draft Determinations. However, if Ofgem allows six very different DSO governance models to progress and consolidate over the next five years it will become ever-harder to move to a common model in future.
- **There is an over-arching need within the ED2 period to improve comparability and transparency across DSO activity.** As the document recognises, this includes a concerted push among DSOs, the ESO and Ofgem to establish standardised approaches to 'public interest' outputs, targets, metrics and common reporting requirements across every area of DSO activity.
- **There is an urgent need to improve co-ordination with local government at all levels as they look to drive a net zero agenda around heat and transport at a local level.** Again, the DNO ED2 business plans provide a range of options on how this might be taken forward and Ofgem needs to take a strategic position on this at Draft Determinations as well as reflecting on what more could be done informally in this space.
- **The issues around a just transition and the DNO / DSO role within that – including on energy efficiency need to be clarified.** Again, the DNOs all put forward different models in their business plans and there is a need for more clarity from Ofgem as part of Draft Determinations on the DNO role and the vision for how they should work with local actors in this space.

Reflecting on the FSO journey it should be remembered that the ESO has moved progressively over many years through ever stricter arrangements around separation, culminating in the move now to the fully independent FSO. Taking a similarly adaptive approach to DSO separation would allow decisions on more radical steps to only be taken once there is clear evidence on the problems and challenges that need to be addressed and on how the market is evolving. As the Call for Input notes, the move to full DSO separation would be harder than it is with the ESO where its role was already clear. The importance of [adaptive regulation and planning](#) is something that Sustainability First has advocated more widely in its thinking on regulation of energy and water.

We hope that these comments are useful and would be happy to discuss them further with you if that would be helpful.

**Judith Ward, Associate, Sustainability First**  
**Maxine Frerk, Associate, Sustainability First**

cc Zoe Mcleod (Policy Director, Sustainability First)

## Call for Input questions

### 1. Are the three energy system functions we outline (energy system planning, market facilitation of flexible resources and real time operation of local energy networks) the ones we should be focusing on to address the energy system changes we outline?

- As set out in our cover letter, we query the strong supply-side focus in terms of future institutional and governance arrangements. If looking at what is needed for local energy systems this has to run wider than the narrow roles identified in Ofgem's previous thinking on DSO responsibilities.
- For example, while DSO promotion of flexibility markets may help curb energy system transition costs, measures to reduce demand overall – especially relating to all forms of heat demand - through thermal insulation and energy efficiency measures - would make a major contribution to cost-efficient whole-system net-zero delivery. Insofar as promotion of energy efficiency services and procurement sits within a DNO / DSO role (LC 31E), these activities should be integrated with the energy system planning and the market facilitation roles.
- Generally, we see a need for Ofgem to consider how the 'real-world' challenges of delivering low-cost heat decarbonisation and electrification of transport will read-across and 'dove-tail' with the three energy system functions described by Ofgem.
- We would also highlight supporting vulnerable customers / ensuring a just transition and customer / stakeholder engagement as key functions that are not mentioned.

### 2. Do you agree with the criteria we have set out for assessing the effectiveness of institutional and governance arrangements?

- The criteria would benefit from the addition of a clear 'public interest' test from the standpoint of consumers, citizens and communities.
- Also, Ofgem needs to consider how far their criteria as outlined will drive institutional and governance arrangements which are truly transformative.
- Of the five criteria we would comment in particular on:
  - Coordination - we see as very important a need for more concerted coordination and consistent approaches in the early years of DSO. For example, consistent procurement practices for flexibility services across DSOs, demonstrated through transparent metrics and reporting. From a consumer / public-interest standpoint there is also a question as to how far DSOs should be the principal – and not just the procurer – of certain demand-side operational services (eg voltage regulation, losses management). Consistent procurement approaches are also needed on energy efficiency services (LC 31 E).
  - On competence – there is arguably an unrealistic expectation throughout the document as to the resource which most local authorities can realistically devote to local energy planning and delivery – especially under current public sector constraints. Unless this local government resource issue is adequately addressed and solved the competence issue will not be resolved either. It may be that the networks need to second technical support into local authorities (and we welcome the fact that some ED2 business plans propose this).

**3. Do you agree with our assessment of how far the current institutional arrangements are, or are not, well suited to deliver the three key energy system functions?**

- We consider the assessment underestimates the complexity and drive of place-led bottom-up initiatives to decarbonise transport and heat – and that it therefore takes an unduly top-down approach to ESO / DSO roles
- There are a range of wider potential changes in the energy system that need to be considered as reflected in the ESC Zero Carbon Operability challenge and in thinking about reform of wholesale energy markets (REMA).

**4. Overall, what do you consider the biggest blocker to the realisation of effective energy system planning and operation at sub-national level?**

- Capacity and resource of local authorities and other local actors. Unless this is adequately addressed, energy system actors will lack ‘counter-parts’ with whom to interact on effective energy system planning.

**5. Do you agree with the opportunities of change we outline and the potential benefits they may create?**

- As set out in our cover letter the opportunities related to delivery of net zero through local energy systems go far wider than supply-side delivery at lowest cost.
- We question the premise throughout that the benefits to be achieved from separation of system operation at the local level (to address conflicts of interest - perceived or actual) will necessarily outweigh the synergies and benefits of retaining some element of integrated local system operation – initially at least. It is not clear in institutional terms that premature separation would necessarily best serve wider public interest goals from a consumer, citizen or community standpoint.
- One justification that is given for the FSO taking on the market facilitation role is that there may be limited liquidity at a local level. Viewed differently – one benefit of improved local institutional arrangements could be precisely that it could help create that liquidity by closer working with local stakeholders in a way a national body would not do.

**6. Are there additional opportunities for change and benefits that we have not set out?**

- The document does not address how the role of regulation itself may need to change in terms of future local institutional arrangements and governance. For example, more regional approaches to regulation within a consistent national framework<sup>1</sup>.
- As noted above the document does not consider how institutional reform at a local level could better support a just transition.

**7. We set out a number of risks associated with change. Do you agree with these risks and the potential costs they create? Are there additional risks of change and costs that have not been set out?**

The Call for Input notes that in responding to the Ofgem RFI some DNOs indicated as a risk the loss of integrated benefits. However, the document does not seem to take that prospect

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<sup>1</sup> As proposed by Regen for example in the [Energy Networks for the Future](#) report

seriously and still seems to see eventual independence as the main goal, albeit beyond ED2. These are important risks that need to be properly explored and weighed against evidence (that has not been provided to date) of the harm caused by the current integrated model.

Additional risks that need to be considered include:

- That the six very different models described in ED2 business plans stand in the way of delivering the benefits. By the end of the 5-year ED2 period, if they continue as proposed without Ofgem requiring more alignment, each DNO / DSO will have consolidated a different strategic and commercial approach to the DSO role – including its relations with the ESO and with local institutions and stakeholders;
- That there are unacknowledged or unexplored public interest synergies and benefits of DSO/DNO integration (eg cost-efficient planning, integrated losses management) that could be lost through separation;
- That an unduly top-down approach regarding FSO & DSO roles (e.g model 3) is likely to disenfranchise local stakeholders;
- The very significant work involved in revising industry codes and data flows to accommodate new roles risks distracting from other priority work in support of the transition;
- No acknowledgement that the DSO could have a ‘principal role’ in driving lowest cost and public interest benefits for the whole energy system (e.g. CLASS, integrated losses management) risks missing an opportunity to derive additional value;
- Failure to settle the ‘monopoly boundaries’ of the DSO role, combined with an uncoordinated and inconsistent drive to open provision of flexibility markets to third parties, may not best serve the public interest and could result in sub-optimal outcomes for consumers, citizens and communities (cost, complexity);
- Model 2 for multiple IDSOs needs far more consideration avoid the risk that this simply serves the commercial interests of emerging IDSO providers rather than the public interest.

**8. For each model, we have set out the key assumptions which need to be true for the model to offer the right solution. Which of these assumptions do you agree with?**

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**9. Out of the framework models we have developed which, if any, offer the most advantages compared to the status quo? If you believe there is another, better model please propose it.**

- This question should not be viewed as a one-off choice between these different models but an adaptive pathway in which subsequent decisions can be taken when there is more evidence and wider uncertainties start to be resolved – including the need for wider decisions on local governance involving other parts of government.
- On this basis it would make sense in ED2 to take concerted action to consolidate the DSO role and establish and ensure sufficient commonality, consistency and standardisation across DSOs and ESO – while improving region-wide coordination (Model 1 – with a voluntary element of Model 4 on regional coordination – especially on cross-vector planning and becoming far more responsive to local approaches to delivery of decarbonised transport and heat, including support for a just transition).

- This is not to close doors on eventual separation - but more work is needed to analyse the public interest benefits and outcomes for consumers, citizens and communities – and the pros / cons may well depend on how other elements of the energy system develop (eg REMA, locational pricing)

**10. What do you consider to be the biggest implementation challenges we should focus on mitigating?**

- One of the biggest challenges is resource-strapped local authorities and community capacity to interface adequately with system operator planning and market facilitation. This challenge has been recognised by all DNOs in their ED2 business plans and Ofgem should make clear at Draft Determinations that it supports the proposed actions.
- The document over-plays the benefits of ESO system-wide coordination and underplays the implementation challenges. The ESO is in flux and needs to consolidate its current role, implement promised data digitalisation and operations upgrades and establish the FSO (including separation from NG) before being asked to take on any new responsibilities at a local level other than a highly-improved ESO / DSO interface.

**11. Taking into account the varying degrees of separation of DSO roles from DNOs under framework model 1, do you consider there are additional measures we should consider implementing, in particular in the short term (e.g. changes in accountability etc)?**

- Model 1 seems sensible for ED2. Ofgem may want to signal that it retains the option to evolve to Model 3 for ED3 (or beyond) – but the FSO needs to be up and running, and DSO incentives, metrics and reporting need to be far better developed.
- All DNOs have put forward proposals for avoiding conflicts of interest in their ED2 plans and Ofgem should be clear what it sees as the key elements of best practice based on those plans. This includes proposals around governance of the DSO and arrangements for wider stakeholder interests to be meaningfully represented in local energy system evolution.
- Model 4 - In principle, some kind of Regional System Energy Planner makes sense – and could be set up tomorrow as a coordination body – under Model 1. This would also make sense with an Uncertainty Mechanism approach to investment – including anticipatory / strategic investment, district heat-zoning and hydrogen development. It still does not solve the ‘docking’ and delivery problem for energy efficiency, community energy etc – but could at least make a start.

**12. Are there other key changes taking place in the energy sector which we have not identified and should take account of?**

- Cost of living, energy retail crisis and future energy retail strategy
- Growing focus on the need for a just transition / no one left behind
- Priority of energy efficiency and demand reduction
- Growing focus on *place-based* initiatives for net-zero and just transition (cf UK100)
- Potential reforms to electricity market arrangements (REMA), including the possibility of locational pricing (wholesale energy, networks).



- Questions around the future role of gas networks and governance arrangements for local decisions on heat (including heat zoning)
- Growth in IoT, smart appliances and developments in AI which could fundamentally change the nature of flexibility markets in the longer-term.

**13. What do you consider to be the most important interactions which should drive our project timelines?**

- A major short-term interaction is with ED2. As a part of this Ofgem should look to:
  - Take a clear line on the level of DSO separation required for ED2 and best practice in terms of other steps to avoid conflicts of interest
  - Confirm ‘best-practice’ arrangements for DNO/DSO providing support to local authorities
  - Identify best practice in terms of DNO/DSO support for “no one left behind” (eg additional support to facilitate low income groups participating in flexibility markets / energy efficiency)
- Ofgem and government to establish a clear direction / vision on the DSO role – with considerable degree of standardisation, commonality, coordination across DSOs and ESO
  - This is needed as an underpinning for other work including the practical implementation of many underpinning processes through Open Networks
  - Some of this may be clarified through ED2 but there is a need for a clear direction from Ofgem and government (taking on board wider stakeholder input)
- There clearly are interactions with the establishment of the FSO. However the priority at this point is not to close any doors and to let the FSO get going but at the same time to very materially improve current ESO / DSO interfaces and interactions in ED2.
- There are clear interactions with the milestones for heat decarbonisation and EV rollout. Meeting these requires a more co-ordinated view at local level. This points to building informally now that element of model 4.