**Zenobē’s** **response to Ofgem’s Connections end-to-end review of the regulatory framework**

Zenobē is responding to this call for input as a leading energy storage and fleet electrification specialist. Zenobē is the one of largest independent owner of battery storage (BESS) in GB, with 730MW in operation or under construction. By 2026, we are on track to double Scotland’s energy storage capacity and manage 1.4GW of batteries. With the right policy and regulation in place, these batteries will prevent renewable energy waste and reduce energy bills by an estimated £1bn over 15 years.

If you wish to discuss our response further, please contact:

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**Zenobē’s response to Ofgem’s call for input (Theme 1 to 7 and RIIO T3)**

***Theme 1 - Visibility and accuracy of connections data and network capacity***

*Question 1a: Do you agree with the issues we have set out under Theme 1 - Visibility and accuracy of connections data and network capacity? Are there any other issues under this theme that we should consider or be aware of?*

We agree with the issues identified under Theme 1 and recognise that Ofgem is addressing the key concerns. As a developer, access to timely and accurate data is crucial for effective decision-making and planning. Transparency in how connections data and network capacity information are presented is equally important, as it builds confidence and enables developers to make informed choices.

*Question 1b: Do you agree with proposal 1a (new regulatory requirement on single digital view tools)? Do you have any views on how this should be implemented?*

Yes, we agree in principle with proposal 1a regarding the new regulatory requirement on single digital view tools. However, we strongly encourage Ofgem and NESO to engage with stakeholders (through user groups) to better understand user needs and collaboratively define the tool’s functionality and scope. At this stage, we are unable to provide further detailed feedback due to the limited information available in the current proposals. We look forward to reviewing and contributing as more details are developed and shared.

*Question 1c: Do you agree with proposal 1b (new regulatory requirement on the creation of guidance / standards for data visualisation tools)? Do you have any views on how this should be implemented?*

Yes, subject to the clarifications outlined in our response to 1b.

*Question 1d: Do you agree with proposal 1c (new regulatory requirement to provide connections data)? Do you have any views on how this should be implemented?*

Yes, subject to the clarifications outlined in our response to 1b.

*Question 1e: What are your views on the completeness and discoverability of connections data that would be useful to you? Are the existing resources clear and transparent?*

We would, as an example of the lack of data completeness and discoverability, refer to the Transmission Entry Capacity (TEC) register. The register wasn’t designed to meet the current needs of the industry, and there is significant missing information that would assist in the optimal use of connections and planning. Examples of these issues with the TEC are as follows:

* It is not possible to definitively know your position in the queue.
* There is no ability to understand or track changes to the data - for example, whether a developer has delayed a project or whether it was the TO who should be penalised. We do not believe that Ofgem currently has the data to assess delays caused by the TO.
* The register does not provide a breakdown of technologies and MW at each site (e.g., the split between solar and storage).
* It does not detail the import and export MW of each connection.
* It does not include demand and interconnection on the same register, which is critical for whole system planning at a substation level.
* The technology categories are misleading and unclear.
* It does not outline whether other connections are firm or non-firm.
* It does not report the next milestone or indicate which milestones have been met.
* It is not integrated with the Renewable Energy Planning Database (REPD) and therefore cannot be relied upon for accurate stage categorisation*.*

Other tools are widely disregarded by the industry, due to being considered inaccurate and/or out of date, leading to a lack of trust and limited usage. Consequently, parties are often compelled to submit speculative connection offers as the only means of obtaining more information about connection feasibility. This process is both time-consuming and inefficient, resulting in an increase in speculative applications.

*Question 1f: Is there additional connections data that would be of use but legal barriers prevent it from being published? If so, do you consider that there are solutions that would enable this data to be made available, for example by aggregating it to appropriate levels / anonymising it etc?*

Please refer to our response to Question 1e, as an example of additional data that we be useful.

*Question 1g: Is there anything else regarding Theme 1 – Visibility and accuracy of connections data and network capacity that you consider we have missed?*

We wish to emphasise the importance of resolving this issue, given the impact of Clean Power 2030 zonal capacity targets on the grid connections process. Visibility of, and confidence in, queue data has never been so important and whilst we welcome Ofgem’s consultation, this review feels significantly delayed. As such, we would strongly encourage Ofgem to identify and progress key priorities.

***Theme 2 - Improved standards of service across the customer journey (not including “minor connections”)***

*Question 2a: Do you agree with the issues we have set out under Theme 2 - Improved standards of service across the customer journey (not including “minor connections”)? Are there any other issues under this theme that we should consider or be aware of? We agree with the issues identified under Theme 2 and recognise that Ofgem is addressing the key concerns?*

We agree with the issues identified under Theme 2 and recognise that Ofgem is addressing the key concerns

*Question 2c: Do you have any views on proposal 2a (general principles-based licence condition and supporting guidance around standards of service throughout the entire customer journey)? Do you have any views on how this could be implemented?*

We believe that a principles-based approach may disadvantage Ofgem, as it allows the regulated party to interpret and fulfil their obligations in a way that suits them. Based on current principles-based approaches to other obligations, we observe varying practices among different TOs/DNOs, which creates inconsistency and further challenges for Ofgem in ensuring equitable outcomes.

As a customer, we strongly advocate for a single, co-ordinated whole-system approach that ensures consistency across all parties – and the current principle approach isn’t delivering that outcome. Instead, we believe TOs/DNOs should be regulated through the SLA framework outlined in proposal 2b, as it offers a clearer, more structured mechanism to uphold standards of service throughout the entire customer journey.

*Question 2c: Do you have any views on proposal 2b (new prescriptive condition(s) around standards of service)? Do you have any proposals for any specific areas of the connections customer journey that should be subject to such a requirement?*

We prefer the SLA/standards approach over the principles-based alternative, as it offers greater clarity and accountability. However, it is essential that Ofgem enforces these standards robustly to ensure they are not merely a blunt tool. The effectiveness of prescriptive conditions will depend on Ofgem’s ability to hold TOs/DNOs accountable for meeting these standards consistently and fairly.

*Question 2d: Do you consider that any of the existing standards of service requirements set out in the regulatory framework for provision of specific products / services should be revised or removed? Do you consider that there is any duplication or overlap of regulatory requirements across the regulatory framework that needs addressed?*

On paper, it may seem disproportionate to licence or codify the expectations placed on TOs/DNOs, but given the current state of play, we believe this could be appropriate. It is difficult for us to provide a detailed view on the effectiveness of current standards, as, in our experience, TOs are not consistently adhering to them.

For example, while NESO has introduced the connections portal, our experience has been that submitted questions often receive inadequate responses. These queries are then closed without the issue being properly addressed. This undermines confidence in the process and highlights the need for improvement.

Standards of service should focus on improving both the quality and timeliness of such interactions and aim to align the level of service provided by TOs/DNOs with the expectations they place on connecting customers. While we do not believe there should be a need to codify every specific example, the current lack of assurance regarding quality service leaves us with little alternative but to support regulatory intervention.

*Question 2e: Is there anything else regarding Theme 2 – Improved standards of service across the customer journey (not including “minor connections”) that you consider we have missed?*

The complexity of the codes and licences makes it challenging for customers to fully understand whether TOs are meeting their service obligations. This lack of clarity can hinder customers’ ability to hold TOs accountable for the service they provide.

When implementing changes, we recommend that Ofgem considers simplifying the relevant legal documents where possible. Alternatively, publishing clear and accessible supporting guidance would help customers better understand the standards of service they should expect from TOs. This could include plain-language summaries or practical examples of how obligations translate into service delivery, ensuring transparency and empowering customers to engage more effectively.

***Theme 3 - Requirement on networks to meet connection dates in connection agreements***

*Question 3a: Do you agree with the issues we have set out under Theme 3 - Requirement on networks to meet connection dates in connection agreements? Are there any other issues under this theme that we should consider or be aware of?*

We agree with the issues outlined under Theme 3. As a developer, we have extensive experience dealing with delays to connection dates that have had a significant and adverse impact on our business operations. Even after agreements are in place, TO delays have stalled critical battery projects, with no financial penalties to the TOs but significant system costs. For example, Zenobē has faced 1-2 year delays on three storage projects totalling 550MW and due for delivery between 2026 and 2029. We would also ask Ofgem to prioritise holding TOs/DNOs to account in the interim, before these reforms can be implemented through licencing and wider changes. The issue of performance variability across various TO’s should be addressed. Harmonising standards for all TDNOs in the UK is vital.

*Question 3b: Do you have any views on proposal 3a (strengthened principles-based licence condition around meeting connections dates)? Do you have any views on specific wording that would achieve the intended outcome?*

We prefer the SLA approach over adopting a principle-based licence condition. Regardless of the specific wording or the implementation approach, it is essential that Ofgem enforces the associated consequences for non-compliance. Without robust enforcement, improved wording alone will not lead to better outcomes for connecting customers. To achieve the intended outcome, there must be a clear requirement on TOs to offer “reasonable” connection dates (i.e. not add unnecessary fat into programmes) and clear and direct consequences for failing to meet those connection dates, especially when this is repetitive or consistent, which represents wider failings. This could include financial penalties, mandatory reporting on performance, or other measures that hold TOs/DNOs accountable and incentivise compliance. Strong enforcement mechanisms will be critical to ensuring that strengthened licence conditions deliver tangible improvements for customers.

Furthermore, the ability to vary connection agreements needs to be carefully reconsidered, as it currently provides TOs/DNOs with excessive flexibility. Zenobe has experienced a TO changing both the connection location and date for a project, effectively ripping up the original agreement. This flexibility could be exploited to avoid penalties for non-delivery, ultimately undermining Ofgem’s objectives and efforts to ensure accountability and timely delivery.

*Question 3c: Do you have any views on proposal 3b (minimum standards / SLAs around meeting connections dates)? Do you have any views on specific standards that could be introduced and how they would work in practice?*

We prefer the SLA approach over adopting a principle-based licence condition. Regardless of the specific wording or the implementation approach, it is essential that Ofgem enforces the associated consequences for non-compliance. Without robust enforcement, improved wording alone will not lead to better outcomes for connecting customers. To achieve the intended outcome, there must be clear and direct consequences for failing to meet connection dates, especially when this is repetitive or consistent, which represents wider failings. This could include financial penalties, mandatory reporting on performance, or other measures that hold TOs/DNOs accountable and incentivise compliance. Strong enforcement mechanisms will be critical to ensuring that strengthened licence conditions deliver tangible improvements for customers. Furthermore, the ability to vary connection agreements needs to be carefully reconsidered, as it currently provides TOs/DNOs with excessive flexibility. This flexibility could be exploited to avoid penalties for non-delivery, ultimately undermining Ofgem’s objectives and efforts to ensure accountability and timely delivery.

*Question 3d: Do you have any views on proposal 3c (a financial instrument designed to offer recourse to connecting customers who face detriment due to delays)? Do you have any views on how this should be implemented?*

We believe there are very few justifiable reasons for delays to substation works. However, we acknowledge that some limited flexibility may be warranted for enabling works that are less within the control of TOs/DNOs (e.g. those subject to the planning process).

A suggestion would be to have a confirmed energization date three years prior to the actual date, after which the TOs would have limited room to move that date, and any movement past six months would need to be submitted to Ofgem and approved. Any movement of the date after the four-year confirmation mark should trigger damages payments. After a year delay to the confirmed date, a "lawsuit option" should be available to customers. A more specific structure and mechanism for penalties is required.

The impact of grid delays is not consistent across different technologies and needs to be considered.

As stated in our previous responses, the ability to vary connection agreements needs to be carefully reconsidered, as it currently provides TOs/DNOs with excessive flexibility. This flexibility could be exploited to avoid penalties for non-delivery, ultimately undermining Ofgem’s objectives and efforts to ensure accountability and timely delivery. We currently feel that negative effects on developer projects and businesses are not considered by TOs in their decision-making process.

***Theme 4 – Quality of connection offers and associated documentation***

*Question 4a: Do you agree with the issues we have set out under Theme 4 - Quality of connection offers and associated documentation? Are there any other issues under this theme that we should consider or be aware of?*

We agree with the issues outlined under Theme 4 and wish to emphasise several additional concerns. Estimates of connection costs are often inaccurate, which significantly impacts a project’s business case and often we see increases in costs, which would impact project returns. In reality, we often have no certainty of costs and are forced to accept significant increases in costs as the project progresses.

The lack of clear, detailed and reliable information on curtailment levels is a major risk to the long-term financial viability of the projects. Network operation assumptions used to derive levels of curtailment need to be reconsidered especially for BESS projects. Additionally, there is a complete lack of robustness around the stated delivery timescales, with TOs frequently overpromising and underdelivering. This results in connection dates being continually pushed back, creating uncertainty and highlighting the unrealistic nature of initial timelines. Another key issue is the lack of robust planning, which is largely due to the size of the connection queue. We are hopeful that the Gate 2 process will provide TOs with an opportunity to re-baseline their plans and deliver improvements moving forward. Addressing these challenges is essential to improving the quality and reliability of connection offers.

We strongly advocate for substantial improvements in post-offer engagement from NESO and TOs with connecting customers. There is a need for post-offer engagement between NESO and TOs, with feedback on the restrictions and requirements of offers.

TOs should also provide details of planned works on circuits over the next ten-year period.

When curtailment is mentioned in the offer, they need to explain how it works and what is expected around it. Curtailment information should be updated with the latest background generation and assumptions before, maybe two or three years before the energization date.

This is particularly important in cases where restrictions or requirements are imposed on connection offers with little to no accompanying explanation. Such a lack of clarity creates significant challenges for developers trying to understand and respond to these conditions. Furthermore, when clarification is sought through follow-up discussions, these requests are often met with resistance, further compounding the issue. A developer-centric approach that includes audits during and post connection as well as developer feedback, will increase accountability for NESO/TOs. Enhanced transparency and willingness to engage meaningfully with customers are essential to address this problem.

Updated information about curtailment should be provided one year before the FID milestone or the point at which a project goes through gate two, whichever is closer to the FID date.

There needs to be clear and transparent guidance on how connection charges are being calculated.

*Question 4b: Do you have any views on proposal 4a (principles-based licence condition on the completeness / quality of the offer and supporting documentation)? Do you have any views on specific wording that would achieve the intended outcome?*

We prefer the SLA/standards approach over the principles-based alternative, as it offers greater clarity and accountability. We believe that a principles-based approach may disadvantage Ofgem, as it allows the regulated party to interpret and fulfil their obligations in a way that suits them. Based on current principles-based approaches to other obligations, we observe varying practices among different TOs/DNOs, which creates inconsistency and further challenges for Ofgem in ensuring equitable outcomes.

*Question 4c: Do you have any views on proposal 4b (minimum standards / SLAs on the completeness / quality of the offer and supporting documentation)? Do you have any views on specific standards that could be introduced and how they would work in practice?*

We prefer the SLA/standards approach over the principles-based alternative, as it offers greater clarity and accountability. We believe that a principles-based approach may disadvantage Ofgem, as it allows the regulated party to interpret and fulfil their obligations in a way that suits them. Based on current principles-based approaches to other obligations, we observe varying practices among different TOs/DNOs, which creates inconsistency and further challenges for Ofgem in ensuring equitable outcomes. Variables such as the full list of dependencies in terms of transmission reinforcements and the potential risks of their delays as well as cost increases in Agreements to Vary (AtV) should be clarified.

*Question 4d: What do you consider would constitute a ‘high quality offer’?*

A high-quality offer would include accurate and reliable cost projections, realistic and achievable connection dates, and clear, detailed explanations for any restrictions imposed. Such an offer would provide developers with the transparency and confidence needed to make informed decisions and effectively plan their projects. More accurate connection offers would also lessen the need for variations (see our previous response to Theme 3). A high-quality offer process would also include a meeting with the TO & NESO (to be held within a defined period after the offer is issued) to discuss the content of the offer and to clarify any areas of uncertainty.

*Question 4e: Is there anything else regarding Theme 4 - Quality of connection offers and associated documentation that you consider we have missed?*

In our response to 4a we have highlighted the importance of quality post-offer discussions. We believe this is a key element to improving connection offers and processes for connecting customers. A requirement to hold a post-offer meeting with the TO and NESO should be a codified requirement.

***Theme 5 – Ambition of connection offers***

*Question 5a: Do you agree with the issues we have set out under Theme 5 - Ambition of connection offers? Are there any other issues under this theme that we should consider or be aware of?*

Yes, we agree with the issues highlighted.

*Question 5b: Do you have any views on proposal 5a (strengthened principles-based licence condition around offering earliest achievable connection dates)? Do you have any views on specific wording that would achieve the intended outcome?*

Ofgem should address this risk by ensuring that the incentives within RIIO-T3 effectively motivate TOs and DNOs to deliver reasonable and achievable connection dates. In cases where the earliest achievable connection date does not meet the customer’s requirements, TOs/DNOs should offer alternative connection options within a defined timeframe.

*Question 5c: Is there anything else regarding Theme 5 - Ambition of connection offers that you consider we have missed?*

Ofgem should address this risk by ensuring that the incentives within RIIO-T3 effectively motivate TOs and DNOs to deliver reasonable and achievable connection dates. Connection dates become longer when a large amount of circuit upgrade works are triggered. Ofgem should look to incentivise TOs to undertake anticipatory investment to upgrade major circuit routes (based on assumed future energy scenarios) to, as much as possible, limit connection enabling works to the local substation.

A few more recommendations include:

* A mechanism to ensure in a timely manner the need for offer revisions if connection dates cannot be met.
* Information on capacity released earlier should be communicated with developers.
* Strengthened guidelines for achievable connection dates.
* TOs should offer alternative connection points if original dates cannot be met.

***Theme 6 – Minor connections***

No response.

***Theme 7 - Provisions and guidance for determinations***

*Question 7a: Do you agree with the issues we have set out under Theme 7 - Provisions and guidance for determinations? Are there any other issues under this theme that we should consider or be aware of?*

We believe that the guidance should be updated to reflect the significant changes to grid connections processes, so that it aligns with NESO’s most recently updated processes. Additionally, we reiterate the importance of Ofgem having the necessary resources and expertise to assess determinations quickly and robustly.

*Question 7b: Do you have any views on proposal 7a (Ofgem to review the guidance for connection determinations)?*

We believe that the guidance should be updated to reflect the significant changes to grid connections processes, so that it aligns with NESO’s most recently updated processes.

*Question 7c: Do you have any views on proposal 7a (Ofgem to review the guidance for connection determinations)?*

There should be a clearly identified, expert team within Ofgem to manage connection related disputes. Additionally, we reiterate the importance of Ofgem having the necessary resources and expertise to assess determinations quickly and robustly. Clarity on Ofgem’s’ scope to manage stakeholder expectations that are connection related should be given.

*Question 7c: Do you have any views on proposal 7a (Ofgem to review the guidance for connection determinations)?*

There should be a clearly identified, expert team within Ofgem to manage connection related disputes. Additionally, we reiterate the importance of Ofgem having the necessary resources and expertise to assess determinations quickly and robustly. Clarity on Ofgem’s’ scope to manage stakeholder expectations that are connection related should be given.

***RIIO T3 – Electricity Transmission Network Incentivisation***

*Question 8a: What are your thoughts on each of the three ideas we have presented? In your response, please identify positives and negatives you see in each of the proposals, and if you have a favoured option and why that is?*

We believe that the RIIO process is fundamentally ineffective and susceptible to manipulation by TOs and DNOs.

Regarding the three proposed approaches:

1. Based on our experience, this approach would not be effective because Ofgem lacks the resources and technical expertise necessary to hold TOs accountable in a meaningful way. Furthermore, if Ofgem were to adopt the SLA-based approaches outlined in this consultation, we believe a post-price control review would become redundant. TOs/DNOs would either meet their targets or fail to do so, making this approach insufficient for robustly delivering outcomes for connecting customers.
2. We do not support this approach, as we do not believe it would incentivise the right behaviours from TOs and DNOs. Without the appropriate incentives, this approach risks failing to deliver meaningful improvements for customers.
3. While we recognise the potential benefits of this alternative approach, we feel it is primarily focused on distribution-level connections and offers little advantage to transmission-connected projects, such as our portfolio of battery projects. We encourage Ofgem to explore how a similar approach could be adapted to address the specific needs of transmission-connected projects. We believe a similar approach, but one that utilises the Clean Power 2030 capacity ranges would be effective.

Overall, we do not favour any of the proposed approaches in their current form and would urge Ofgem to refine these options to better address the challenges faced by connecting customers, particularly those with transmission-connected projects.

*Question 8b: With reference to our Future Considerations, do you have any further ideas on how TOs could be incentivised through a financial penalty and reward model, to deliver faster connections times, a more effective overall connections process in RIIOET3 and drive behaviours that have a positive long-term impact on the network?*

As an alternative, we would rather Ofgem set incentive targets for TOs/DNOs to connect the volumes required as outlined in the Government’s Clean Power 2030 Action Plan, and subsequent spatial plans.

Recommendations include:

1. A tiered incentive structure for financial rewards and penalties based on over/under performance.
2. Provide additional innovation incentives for TOs that deploy innovative solutions that lead to faster connections to incentivize innovation.
3. Alignment of CSNP and FES and SSEP incentives to provide clear methodologies for TOs.

We believe that the implementation of the CP2030 goals will create a clear requirement for works to be delivered by the TOs. Delivery of these works should be prioritised under RIIO-T3 through the use of PCD type controls. Vague output-based measures (e.g. network risk score) incentivise TOs only to do works that maximise their outputs rather than those that are most critical to delivering a network fit for the future.