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**11 December 2021**

## **Citizens Advice response to Ofgem Consultation on the initial findings of our Electricity Transmission Network Planning Review**

Dear Ofgem,

As the statutory consumer energy consumer advocate, Citizens Advice has represented the consumer on the Offshore Transmission Network Review (OTNR) Advisory Group and in the Electricity Transmission Network Planning Review (ETNPR) Advisory Group. Citizens Advice also provides regular input into the energy network price control process, Future System Operator (FSO) consultation and early competition reform. Given this position and experience, we welcome the opportunity to respond to this consultation.

### Introduction

The growth in offshore renewables and the increased provision of system flexibility to support decarbonisation should be at an efficient cost for consumers. The ETNPR is an important addition to the OTNR in pursuing this objective because it can support the efficient utilisation of offshore wind in the energy system to support Net Zero through strategic investment. It should align network development in both the transitional and enduring onshore regimes with equivalent programmes offshore, to enable a consistent process of energy system development.

The ETNPR should, specifically in the short term transitional arrangements and early stages of the enduring model, ensure that coordinated network design facilitates time-sensitive low-risk strategic investment in transmission. Well-informed models of centralised network design, led by Ofgem, the Future System Operator and supported by electricity transmission networks, should work to encourage consistency, transparency and confidence in the direction of strategic investment (SI) to minimise unnecessary investment risk and therefore efficient cost.

For the longer-term enduring regime, this arrangement, even with the form of early competition outlined in the Centralised Strategic Network Plan (CSNP), will likely struggle to harness the potential of collaboration between different energy networks and with

network and non-network assets. There is limited scope for collaboration given the narrow 'investment options' window for input from Electricity Transmission Operators (TOs) and third parties. This will lead to inefficient network costs. It creates a process that will be highly reliant on the FSO for coming up with the 'right answer' for strategic and coordinated investment arrangements.

We think it is important when establishing the FSO and the ETNPR that the long term objective is to establish a development process that will effectively incentivise and harness innovation in network design.

Poor network design by the FSO might include inefficient costs, network solution biases or failure to identify the local community and environment needs. We do not think the measures proposed in the consultation to address this issue are sufficient. Instead, the CSNP enduring regime process should, over time, require a proposal of strategic investment from the FSO getting progressively earlier. There should also be, over time, more demanding tenders, requiring TOs and third parties to relate their proposals to the CSNP by showing the network value they offer. This will encourage innovation and accountability by providing detailed support and challenge.

The value of the CNSP as proposed in the consultation is to utilise network design expertise in energy networks to confidently provide a model of network development to enable the use of strategic investment. The value is not that either the Holistic Network Design (HND) or centralised strategic plan is static and will be 100% accurate - but that once a chosen version is accepted it creates consistency and clear dependencies for network providers and those connecting to energy networks. The CNSP will need to develop and evolve at regular and predictable junctures to reflect the impact of agreed developments including technology and policy changes. This may involve change or settlements with impacted parties.

We think the most robust mitigation to the role of the FSO is for the FSO to require an increasingly early best-effort SI and CSNP proposals on which can be put to early competition. Rather than simply encouraging TOs and third party proposals to offer investment options only. Over time competition could require more involvement from these parties to provide complete CBA and CNSP options. In the proposed stages of the CSNP process, the 'Identify Investment Options' is appropriate for transitional arrangements because bidders in the current system will not have a clear view of what method will be used to constitute overall system value in the CBA process or CSNP. This process should be unnecessarily restrictive once the evaluation criteria are clearer. We expect this to be brought about by greater network competition, more cost-reflective price signals supportive of transparency in network design, improved accountability of network investment decisions and a level of experience of CSNP decisions.

An early design SI from the FSO would also be an opportunity for parallel input from stakeholders into SI proposals that will help the appraisal of SI or SI alternatives provided by FSO or others.

In response to the ONTR, we encouraged joined-up planning, leasing and subsidy auction because it provides a clearer ask of developers and could also be an opportunity for stakeholder input and for third parties to challenge and offer innovative alternatives to default centralised design to deliver additional system value<sup>1</sup>.

We think onshore system coordination will also require more joined-up methods of viewing the value of an asset offered to the energy system than is currently available. At present, system benefits are assessed across multiple energy service markets at different times which limits the clarity and consistency of energy system development. More alignment over time will help set cost-reflective price signals and support network design decisions and allow improved visibility of the value of long-duration storage, carbon capture and reliability of generation which can be reflected in competitive bids for network design. This should also be a clear direction for the FSO to support the reduction of risk in coordinated network design and strategic investment.

Alongside enabling efficient transmission network development, centralised network design should eventually support a platform for tendering for strategic investment design alternatives that draw out how they plan to impact the CNSP. This enables a more significant role for TO's and third parties that are best placed to offer innovative network coordination arrangements. This will support the effective locational choices of generation, interconnection, storage and demand to facilitate decarbonisation and reduce network costs.

To minimise the risk of poor CSNP and ensure an efficient development process, the FSO development of a single early SI model provides clarity to TO's and third parties at an early stage to define the grid assets and network design that can provide system value. This may not be feasible currently, but a longer-term enduring regime approach should be designed to encourage the incorporation of competition to more robustly protect consumers against sub-optimal centralised network design.

### Centralised planning summary

The proposed mechanisms: HND in transition and CSNP as an enduring solution, should seek to avoid unnecessary differentiation of onshore and offshore planning and modelling. This should lead to a more consistent approach in network modelling, interaction with energy network price control regulation and to early competition. As well as simplifying engagement with other ongoing reforms.

We think that HND and CSNP should attempt to encourage speed and efficiencies in network development to reach Net Zero by requiring electricity transmission networks to support early network design and planning strategic investment. This is important because strategic planning and competition will need to be effective to support the minimisation of constraint costs that are paid due to limited network capacity and the inability to store or use excess generation capacity. The ESO anticipates constraint costs

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<sup>1</sup> Citizens Advice (2021) [response to BEIS consultation: Offshore Transmission Network Review: proposals for an enduring regime and multi-purpose interconnectors](#)

could exceed £2bn per year by 2026<sup>2</sup>. There are also large savings to be created by reducing losses and improving grid security by localising generation and demand.

However, there should eventually be potential for competition in SI or SI alternatives that reduces the risks of suboptimal design. Centralised planning should provide clear opportunities for increasingly sophisticated alternative SI/alternative propositions that can add value relative to contributing to a clear centralised plan.

We think that the development of an independent Future Systems Operator will be crucial to providing a transparent and accountable developer of proposed energy system architecture, alongside support from electricity transmission and electricity distribution networks<sup>3</sup>. However, a clearer, more coordinated view of planned network design will likely place more pressure on local communities to accept network developments that are seen as 'Net Zero critical' and, if they are clustered, have complex interdependencies with other developments. This may create a lack of accountability without more pronounced input from the government or stakeholders.

Coordination onshore, as offshore, should seek to highlight where these issues are problematic with local communities at an early stage of planning and network design. Firstly, the ETNPR should reflect the intentions of agreed local energy plans and have standardised and predictable input from DSO planning. Secondly, where there is collaboration or clustering of transmission network planning and it is seen as 'critical', then a more focused and engaged community engagement and settlement process should be considered to ensure that projects are progressed that will offer local communities scope for a fair settlement from the negative impacts of energy infrastructure developments. At the point of tendering for SI or SI alternatives, it could also be an opportunity for local community groups and stakeholders to provide a view on the centralised network plan considerations of possible issues.

Supporting local network balancing that represents an efficient cost to consumers will require planning and development processes that encourage network collaboration, such as improving the visibility of current and future network development, incentives to collaborate and scope to provide competition.

We want to see a model of centralised coordination that, although currently focused primarily on enabling the efficient provision of strategic investment, will in the future support robust challenge and stakeholder input to strategic investment. We think this design will be made feasible by wider reforms that deliver clarity of network charging signals, aligning provision of system asset incentives, and improved connection queue management at the distribution and transmission networks that encourage collaboration as well as competition. These changes should enable early and clear network development signals to encourage competition to FSO SI proposals so that coordinated network design is not a barrier to innovative network solutions.

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<sup>2</sup> ESO (November 2021) [Net Zero Market Reform Case for Change and Market Design Options Assessment Framework](#)

<sup>3</sup> Citizens Advice (2021) [Citizens Advice response to 'Energy Future System Operator Consultation'](#)

Please do get in contact if you have any queries on the above or our responses to the questions below.

Kind regards

Ed

Senior Researcher  
Citizens Advice

**Question 1: What are your views on our key objectives for future ET network planning arrangements that can deliver Net Zero at lowest cost to consumers?**

We think that the objectives as outlined below are all appropriate and cover the key issues. We have a number of comments relating to how we think these objectives should be optimally approached:

***• Proactive identification and progression of low regret 'strategic investments' (SI) in the ET network that are key to delivering the Net Zero target and the government's plans to decarbonise the UK power system by 2035.***

***• Facilitating strategic planning of the energy system such that ET networks and the energy system more generally, are planned alongside each other to maximise efficient utilisation of electricity networks.***

There needs to be a transparent and accountable process of identifying and establishing low-risk strategic investments that will provide overall value to consumers. This should utilise the expertise of electricity network companies and requires a consistent approach to whole system planning signals from distribution system operators and input from local energy plans. There should also be a mechanism for a negotiated settlement through processes of coordinating critical Net Zero infrastructure on behalf of local communities to ensure that clustering and increased interdependencies do not overlook the potential environmental, societal implications for communities and consumers.

***• Ensuring that the onshore and offshore ET networks, including potentially interconnection, are planned holistically, together.***

This requires proposals and assessments of network value viewed across the breadth of the offshore business model. As a result, the ETPNR should consider the role of network charging in establishing and indicating transmission network asset value and how this is shaped by network connection demand. This provides a platform on which the energy system requirements can be better met by innovative and flexible approaches to colocation and interconnection of network and network assets.

- ***Providing viable routes for fair and transparent assessment and delivery of innovative and/or non-network solutions developed by third parties competing against other options.***

Early competition for network design is required to support innovative network design and the development of network assets that will provide the most effective and cost-efficient solutions for consumers. By enabling transmission networks to progress early network design, consumer engagement and planning permission work ahead of a competition process, it can provide an informed basis on which to encourage the development of alternatives to a SI that contributes to centralised network design. There may need to be a requirement for extended windows for developers to conduct their own surveys, planning permissions and data collection to provide an alternative network design.

### **Question 2: Are there any other key workstreams that interact with this review that we need to align with?**

There are a number of important workstreams that the ETPNR should align with including OTNR, Early Competition, FSO, the National Energy Policy Statement and network charging reviews.

### **Question 3: Do you have any views on the scope of the review? Are there any key topics that we have missed?**

We largely agree with the interactions with other programmes of work outlined. However, we think that there needs to be greater visibility of network connection queues and signals of changing capacity requirements and the link to network investment. For example, embedded generation, EV charging, electric heating and heat network development can increase localised volatility. The transparent representation of this to consumers, industry and generators will enable demand-side response and support the provision of innovative technical solutions. It will also provide consumers with greater visibility of the data and decision points that are impacting transmission network development.

We think there is more that can be done to capture early indicators of energy demand volatility and clear and consistent DSO deliverables are crucial to consumer value from the transmission network. As a result, efficient transmission network investment and clarity of opportunities for coordination should be recognised as a key value proposition for prompt DSO development.

The value of coordinated network design as proposed in the consultation is to utilise network design expertise in energy networks to provide a model of network development that can be used to better inform the creation of network development proposals. The value is not that the HND or centralised strategic plan is static and 100%

accurate - but that it creates consistency of expectation for network providers and network connectees that will develop at regular and predictable junctures.

The proper functioning of coordination will be that it enables competition and innovation to challenge and modify the centralised design to provide value to consumers. This needs to be done in a way that factors in stakeholder inputs on the proposed alternatives to SI or centralised network design.

**Question 4: Do you have any views on the success criteria? Are there any key areas that we have missed?**

We do not have anything to add.

**Question 5: What are your views on our enduring vision for Centralised Strategic Network Planning?**

We support the proposed position of setting a high 'bar' for qualifying as a strategic investment in order to avoid over-specifying the network and reducing the ability to manage more localised change and introduce innovation.

There are multiple roles attached to being a centralised strategic network planner. There is likely to be a key role for an owner of the centralised strategic network planning as it will encourage ownership, independence and transparency of the process.

It seems sensible that the FSO builds on the ESO role to review, critique and develop early network design by the ET's. However, CSNP represents a significant shift from the NOA approach. We would encourage the CSNP to be informed by competition. There should also be a transparent input of views on the cost, environmental and community impact of strategic investment to ensure that there is a clear necessity and early buy-in to support the development process

For the longer-term enduring regime, this arrangement, even with the form of early competition outlined in the Centralised Strategic Network Plan (CSNP), will likely struggle to harness the potential of collaboration between networks and parties with non-network assets to enhance the efficiency of network costs. It is also likely to be highly reliant on the FSO for coming up with the 'right answer' for strategic investment given the narrow 'investment options' input from TO's and third parties.

Poor network design by the FSO might include inefficient costs, network solution biases or fail to identify the local community and environment needs. We do not think the measures proposed in the consultation to address this issue are sufficient. We think that the CSNP process and governance should, over time, become an opportunity for well-developed TO and third party alternatives to an early stage FSO proposal of strategic investment within the CSNP. This will encourage innovation and accountability by providing detailed support and challenge.

The value of the CNSP as proposed in the consultation is to utilise network design expertise in energy networks to provide a model of network development that can be used to inform the creation of strategic investment network development proposals. The value is not that either the HND or centralised strategic plan is static and 100% accurate - but that once a definitive version is accepted it creates consistency and dependencies for network providers and network connectees. The CNSP will need to develop at regular and predictable junctures to reflect the impact of agreed developments.

We think the most robust mitigation to the role of the FSO is for the FSO to provide prospective competition a best-effort early design SI and CSNP proposal to provide alternatives. Rather than simply encouraging proposals of investment options - over time competition could require more complete alternative options to include detailed CBA and CNSP implications. In the proposed stages of the CSNP process, the 'Identify Investment Options' is appropriate for transitional arrangements because bidders in the current system will not have a clear view of what method will be used to constitute overall system value in the CBA process or CSNP. This will be unnecessarily restrictive once the view is clearer. We expect this to be brought about by greater network competition, more cost-reflective price signals supportive of transparency in network design, improved accountability of network investment decisions and a level of experience of CSNP decisions.

An early design SI from the FSO would also be an opportunity for parallel input from stakeholders into SI proposals that will help the appraisal of SI or SI alternatives provided by FSO and alternative providers.

In response to the ONTR, we encouraged joined-up planning, leasing and subsidy auction because it provides a clearer ask of developers and could also be an opportunity for stakeholder input and for third parties to challenge and offer innovative alternatives to default centralised design to deliver additional system value<sup>4</sup>.

We think onshore system coordination will require more joined-up methods of viewing a network assets value offered to the energy system than is currently available. At present, network assets system benefits are assessed across multiple energy service markets at different times which limits the clarity and consistency of energy system development. More alignment over time will help set cost-reflective price signals and support network design decisions and allow improved visibility of the value of long-duration storage, carbon capture and reliability of generation which can be reflected in competitive bids for network design. This should also be a clear direction for the FSO to support the reduction of risk in coordinated network design and strategic investment.

Alongside enabling efficient transmission network development, centralised network design should eventually support a platform for tendering for strategic investment

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<sup>4</sup> Citizens Advice (2021) [response to BEIS consultation: Offshore Transmission Network Review: proposals for an enduring regime and multi-purpose interconnectors](#)



design alternatives that draw out how they plan to impact the CNSP. This enables a more significant role for TO's and third parties that are best placed to offer innovative network coordination arrangements. This will support the effective locational choices of generation, interconnection, storage and demand to facilitate decarbonisation and reduce network costs.

To minimise the risk of poor CSNP and ensure an efficient development process, the FSO development of a single early SI model provides clarity to TO's and third parties at an early stage to define the grid assets and network design that can provide system value. This may not be feasible currently, but a longer-term enduring regime approach should be designed to encourage the incorporation of competition to more robustly protect consumers against sub-optimal centralised network design.

In terms of timescales for review of the CSNP, if a default design is put out to competition this should be the opportunity to inform updates on the centralised design. Once both a FSO best effort and commercial pressure have been provided to optimise a solution where centralised strategic network design might be required then implications of the decision should be reflected across other assumptions about the requirements for centralised strategic network design.

**Question 6: Do you have any views on the proposed central network planner's role, who that planner might be, and how it may perform this function?**

As outlined in Question 5 and in response to the FSO consultation<sup>5</sup>.

**Question 7: What are your views on the proposed stages and focus of the enduring CSNP model? If you can suggest alternative approaches to any of the stages then please do so.**

We are concerned that the FSO could have too much control in developing the CSNP and whether there will be enough information at the early competition stage outlined. Not enough opportunity for third parties to shape the process and ensure that CBA's and engagement can be done that will effectively support their propositions.

We think that similarly to Offshore coordination via holistic network design, the TO's and FSO should be looking to establish a default SI proposal. From which third parties have an opportunity to develop their case for alternative network design.

**Question 8: What are your views on closer stakeholder co-working to break longer-term uncertainty deadlocks?**

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<sup>5</sup> Citizens Advice (2021) [Citizens Advice response to 'Energy Future System Operator Consultation'](#)

We are not clear on at what stage this is being proposed. We would think that a larger role for third parties in shaping SI or alternative propositions and close engagement with stakeholders would avoid the need for multiple possible scenarios.

**Question 9: What are your views on allocating risks and accountability for various aspects of the CSNP, and for delivering the options finalised under CSNP? Do you have any suggestions to mitigate any of the risks?**

As outlined in question 5, the key mitigation will be providing the FSO a less directive role in determining the value of investments value to the CNSP. More emphasis should be on TO's or third parties making the case for any alternative option to an initial FSO proposal.

**Question 10: What are your views on the proposed Transitional arrangements?**

These meet the immediate objectives to mitigate cost risks for consumers of not having a mechanism for strategic investment.

**Question 11: Do you have any views on the next steps to implement CSNP?**

We think the proposed refined definition of where the implementation of where the enduring regime CSNP will start and where it is headed (an increased role for alternative providers of SI design) should be set to support the development of objectives for the FSO and provide clarity to industry and stakeholders.

**Question 12: What are your thoughts on our initial view of the areas to be covered in the next phase of the review? Are there other areas that aren't included that you would like us to include?**

No response