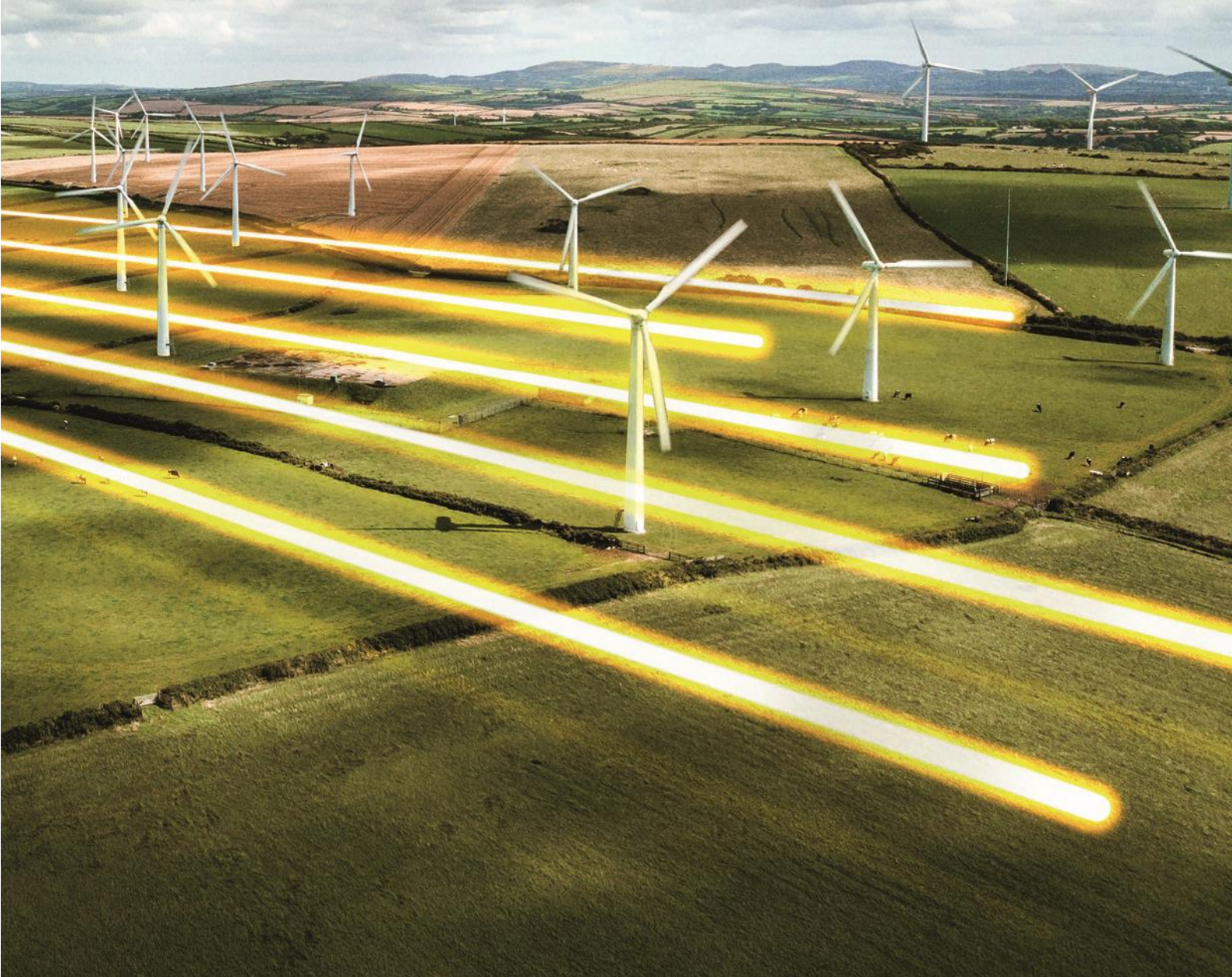


Stakeholder Feedback

Balancing Capability Strategic Review

August 2022



Balancing Strategic Capability Review Stakeholder Feedback

We have recently completed our balancing strategic capability review where we worked with industry to ensure that we are making the right choices to meet needs of the control room, our business plan commitments and the priorities of the industry, and that we do so in a cost-efficient, transparent and effective way.

We wanted to share the formal feedback that we received from stakeholders as part of this review. This document details the responses received from the Qualtrics survey we launched in June. We received 27 responses, 26 of whom had been involved in the engagement in April and May. Not all stakeholders completed every question. The stakeholder feedback we gathered through this survey is in appendix 2 for transparency.

We were keen to receive views and input from a wide range of stakeholders, to ensure that further investment will enable us to:

- Meet our net-zero carbon operability ambition
- Minimise balancing costs and deliver consumer benefits
- Continue to remove barriers to entry for energy providers and encourage participation in the market
- Operate within increasingly challenging system conditions
- Efficiently and effectively transition between our current and future balancing capability
- Create a foundation for future market changes and reform
- Respond to industry priorities and deliver their requirements

We were keen for this engagement to be delivered transparently and our first question asked for stakeholders' views on our transparency, we were delighted to see that 25 of the 27 respondents agreed or strongly agreed with this statement.

We then asked three further questions where we asked for stakeholders feedback – again we were pleased to see that stakeholders felt positive that we had considered their opinion, responded to them in a timely way and had trust in the work we did throughout the review.

We had 20 comments in response to a request to share their opinion on the review and indicate if they are supportive of the work undertaken. The comments were overwhelmingly supportive. A selection of responses is included here with full details in the annex.

“I am supportive of the work done to date and have been encouraged by the level of openness surrounding the state of the current systems”.

“Supportive of the work but wonder if the changes could be implemented faster”.

“Very supportive. I have been working with the ESO for some time now and no one had ever managed to get me to understand the entirety and magnitude of the problem and constraints so far. It completely changed my understanding of what needs to be accomplished and why it is difficult”.

Throughout the engagement we wanted to help stakeholders understand the associated costs with our proposed roadmap and the costs compared to the expected benefit delivery. In the Qualtrics survey we asked if stakeholders felt that the costs are reasonable for a programme of this complexity and scale. There were 22 responses to this question with the majority saying yes, and some stakeholders highlighted that the cost information would need to be revisited throughout the development of the project. A number of stakeholders highlighted their concern about the speed and functionality of the project delivery alongside the costs.

“The feeling in the room when the costs were presented is that they were not high at all. This capability will be transformative and essential to enable the transition into the future, we are supportive of the project costs”.

“Yes, I think the potential savings from success here means that the costs should be reasonable, but Speed should be the focus”.

“Costs are considerable, however in the context of the amount of investment across the electricity industry, it is proportionate to ensure the investments that are being made have a physical and

reliable route to market. The ESO requires the investment to ensure reliable system operation. However, the ESO must deliver the promised functionality this time”.

Stakeholders were then asked about their confidence that the intended project benefits will deliver value for money. This question was answered by 22 stakeholders, 20 of whom selected somewhat or strongly agree. A further question was asked inviting stakeholders to explain their scores. This highlighted support with stakeholders expressing a need for further reassurance on a range of issues, which we will pick up in further engagement as the project develops.

“I agree that the 'intended benefits' will deliver value for money, but have low levels of trust in those intended benefits being realised due to the previously mentioned lack of adequate resource and funding”.

“It’s hard to say at this stage whether it will deliver value for money. But the changes should lead to benefits for the market”.

“The changes are clearly needed. Given the current and projected spend on balancing costs, new systems to streamline decision making have clear value”.

“I have no doubt there are benefits but I think it will be really challenging to deliver. It’s complex in its own right, before you take into account the level of change happening across ESO and wider industry”.

“The scale of value from savings will significantly outweigh the risks of inaction”.

We had a further 20 comments regarding their opinion on our overall proposals, the benefits and the ESO’s ability to deliver this work. Again, there were a range of comments which will all be considered in future engagement and in our proposals going forward.

“Delivery will be a challenge; determination will be required. I am supportive of the goals and believe the benefits case has been made”.

“Early to judge proposals. I am supportive. I am not fully confident to deliver this work (because NGENSO failed many times to deliver in the past), but I do hope you prove me wrong :) definitely reassuring to see that NGENSO is finally giving the right importance to this topic, but implementation will be complex”.

“I’m very supportive of benefits. I think there will be real delivery challenges, but I hope that ESO is given the support to deliver”.

“I am supportive of the proposals and benefits that the ESO is seeking. I am worried that the technical complexity of it has been underestimated”.

“I am supportive of the proposals and the benefits that ESO want to deliver, however the work is substantial and in an ever-changing landscape the ability to deliver is uncertain. In recent experiences on delivery of “simpler” products the delivery has not always been smooth”.

The final question asked if stakeholders endorsed the co-created balancing roadmap, 19 comments were received in response. 12 stakeholders said yes, 4 endorsed the proposals broadly, a further 2 stakeholders hadn’t seen enough detail to endorse the roadmap, and 1 stakeholder wanted to continue to co-create the roadmap.

“100%, NGENSO sees mostly their side of the problem, and we mostly see our side, so we have to get together to design something that can be valuable for both sides in the long term”.

“As previously, I think it is challenging for someone external to the ESO to really understand the trade-offs in the roadmap. To the extent I understand these, I believe the ESO has done a good job to balance competing priorities”.

“Broadly. I would still like to see more upfront discussions of system requirements in longer timescales if the ESO wants to see certain services designed into new projects”.

“I have not had sufficient exposure to the roadmap to endorse it”.

“Yes - I think directly listening to industry and adjusting the roadmap accordingly is crucial. I also think that ESO should maintain a level of flexibility in their approach, given how quickly energy markets and policy is developing and will develop over the coming years”.

“Yes, fully. However, I felt like some of the industry's requests like decisions that account for carbon were not addressed. This makes sense because the Balancing Transformation is likely not the mechanism to address them, but perhaps the ESO could do more engagements like this to cover those other regulatory/market concerns the industry has”.

“Yes, the roadmap has ambitious delivery targets. It is important that it is stuck to however and not allowed to slip”.

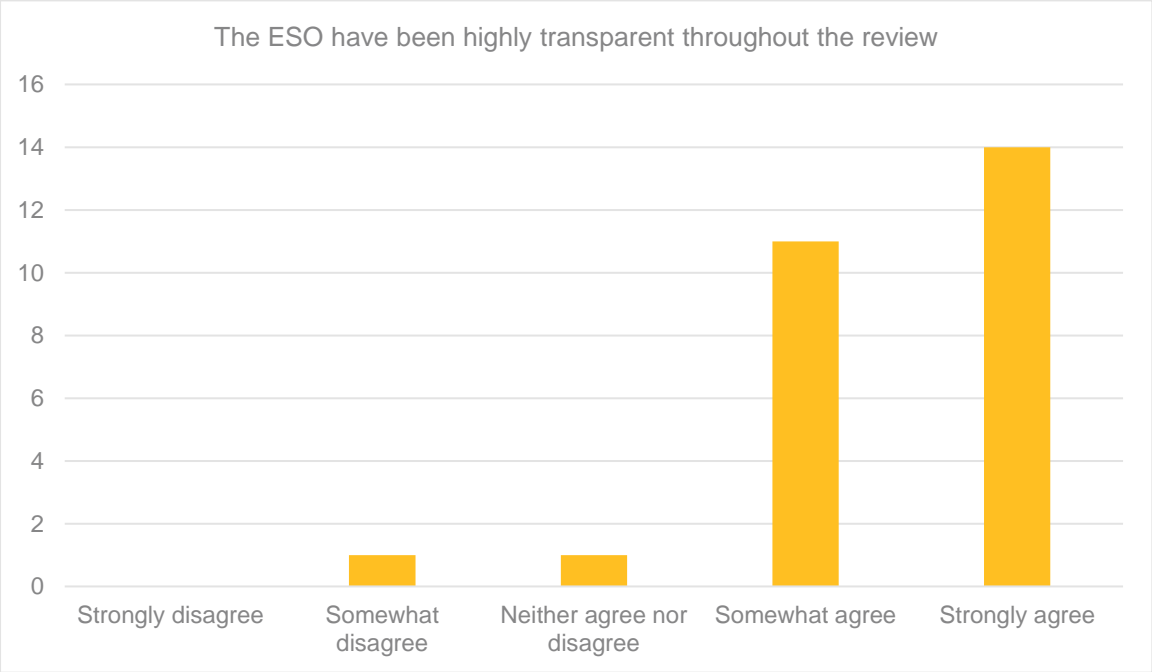
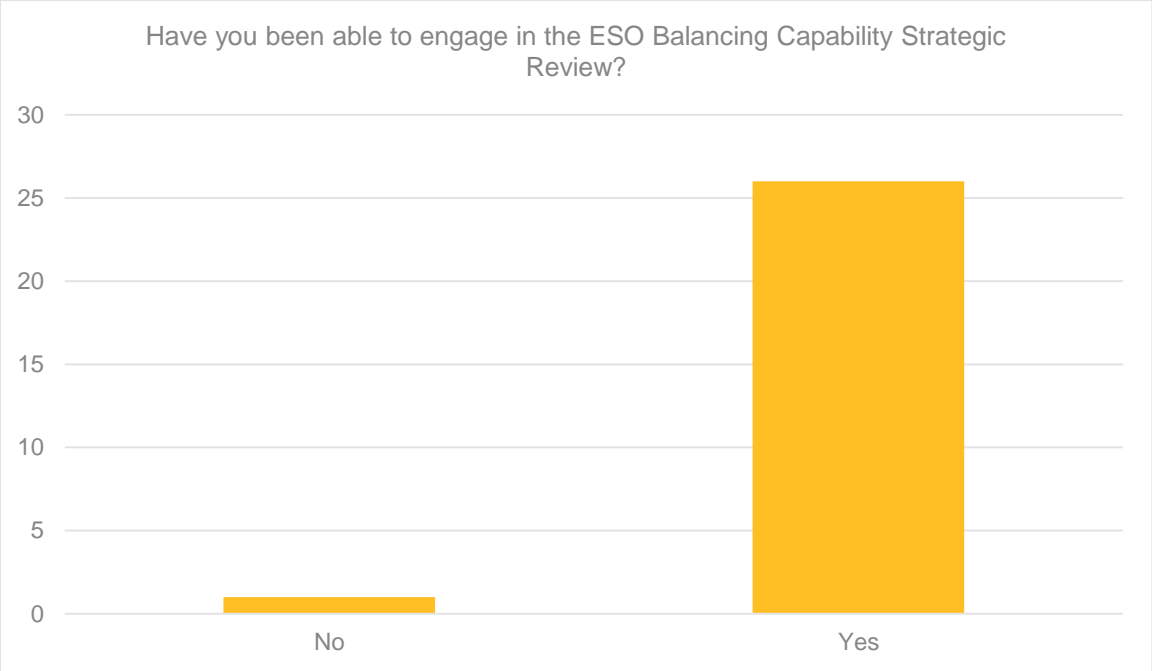
As you can see from the feedback received, we have been able to achieve our ambition of communicating transparently and working collaboratively with stakeholders throughout our strategic review. We were delighted to have had the engagement and feedback from stakeholders throughout our balancing strategic capability review, which has given us a prioritised co-created roadmap with industry validation of external requirements, and an agreed framework for quarterly reporting and ongoing engagement with industry and Ofgem.

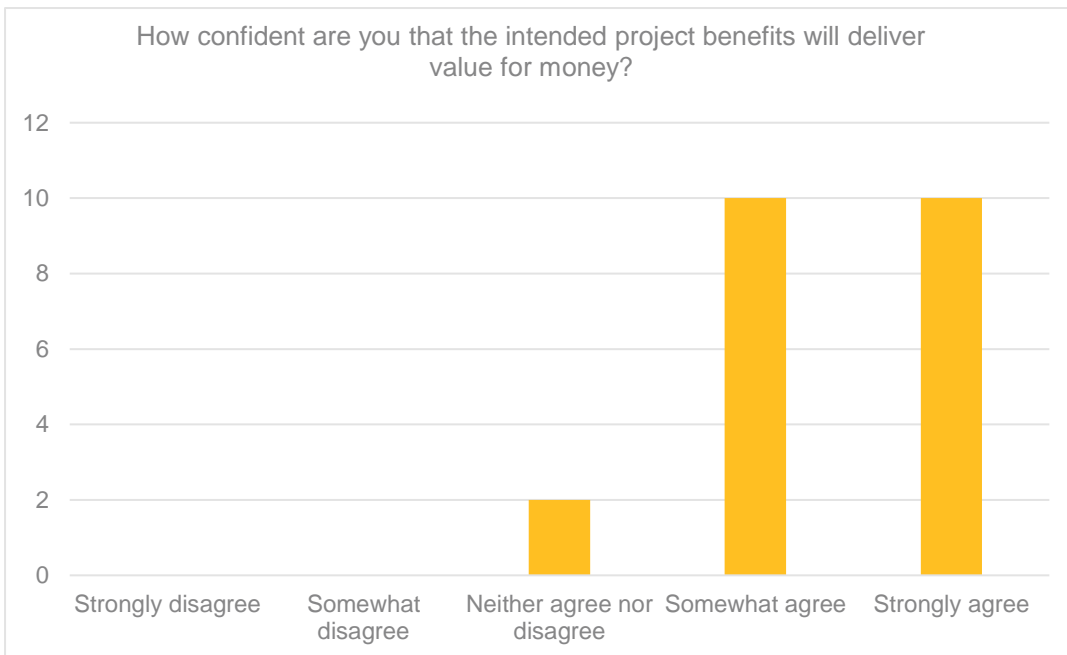
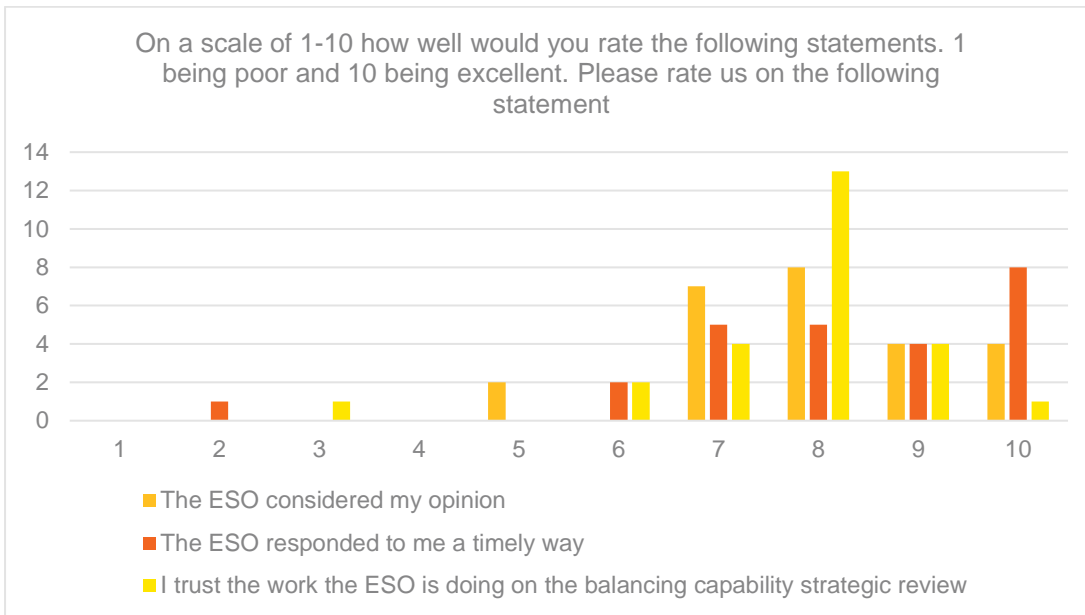
This engagement will be ongoing, and we look forward to engaging closely with all our stakeholders as the roadmap develops further information on our roadmap and our final report are available on our website. <https://www.nationalgrideso.com/industry-information/balancing-services/balancing-programme>

Appendix 1 Full questions asked in the Qualtrics survey

1. Have you been able to engage in the ESO Balancing Capability Strategic Review?
2. Can you rate the following statement from strongly agree to strongly disagree.
 - The ESO have been highly transparent throughout the review
3. On a scale of 1-10 how well would you rate the following statements. Where a score of 1 being poor and 10 being excellent. Please rate us on the following statement.
 - The ESO considered my opinion
 - The ESO responded to me a timely way
 - I trust the work the ESO is doing on the balancing capability strategic review
4. Can you share your opinion on the review? Are you supportive of the work undertaken?
5. Do you feel that the costs are reasonable for a programme of this complexity and scale? Are you happy to support the overall project costs?
6. How confident are you that the intended project benefits will deliver value for money? Rating strongly agree to strongly disagree.
 - I agree the ESO will deliver value for money in the intended project
7. Could you explain your score? What other benefits do you see in the delivery of this programme?
8. Can you share your opinion on the ESO's proposals? Are you supportive of the benefits the ESO is seeking to deliver? Are you confident in their ability to deliver on this work?
9. Do you endorse the co-created balancing roadmap? Provide further details.

Appendix 2 Full results





Can you share your opinion on the review? Are you supportive of the work undertaken?

I am supportive of the work done to date, and have been encouraged by the level of openness surrounding the state of the current systems. I have severe doubts though that the project will be adequately funded and resourced to deliver on the ambitions set.

Absolutely supportive. The main question is delivery - will it be delivered, and when? A second question is commitment - we see that now, but will it last? Government and other external factors often create unexpected new tasks or demands on people - will this project withstand disruption like that?

Good work, but most of it will depend on how it's implemented and how the engagement will continue over the next few years

The review is a fundamentally important piece of work, potentially the most consequential workstream in industry for reaching Net Zero by 2050 through tackling the balancing challenge. We appreciate NGENSO's transparency on the process and the ability for industry participants to feed into it.

Very supportive of the review and how its been carried out. My only concerns are due to experience with the last transformation project
Very supportive of the workstream - I believe the ESO should be building for the future, but also optimising opportunities around existing generation (which could be there for another 15-20 years). The inefficiency in control room operations needs to be resolved - too many highly skilled engineers doing manual processes.
Very supportive of the review, I think this work will be crucial and involving industry at an early stage is vital, so it was good to see that
Supportive of the work, but wonder if the changes could be implemented faster
Yes, I think it has been a really good opportunity to voice thoughts to the ESO and it has also been a really great experience to actually interact in person with members of the ESO.
We are supportive of the work being undertaken and appreciate the level of engagement with industry participants throughout this process
The ESO clearly put a lot of effort into engaging stakeholders in the review. Their openness was refreshing. I think it was challenging for industry to contribute really effectively due to the complexity of the issues (and the fact that things are changing all the time) - so I particularly welcome the establishment of ongoing dialogue. It is clearly a critical programme of work that will need to stay aligned with establishment of DSOs, REMA, LCT adoption to name but three.
Very supportive. I have been working with the ESO for some time now and no one had ever managed to get me to understand the entirety and magnitude of the problem and constraints so far. It completely changed my understanding of what needs to be accomplished and why it is difficult.
Based on the information provided via the review and through exposure to the systems currently utilised by ESO, I am very supportive of the work being undertaken to ensure that balancing capability is fit for purpose as our energy system continues to develop apace.,
The review has been open, honest and interactive. I am fully supportive.
Yes I am supportive of the working being undertaken. The needs case for the review has been clearly explained from the beginning
It was surprising to see how open NGENSO were on the issues they were going to face in the future. We are keen to see the improvements in the system capability delivered.
Very supportive and welcomed the transparency. This work needs to help steer market design reform
Excellent process with great customer/provider interaction - very supportive of the need for the work and the drivers behind it
I'm supportive - it's a piece of work that needs doing
Yes I am fully supportive of the review. ENCC have to work with an inadequate suite of tools for the needs of operating the electricity system as it currently stands today, let alone for the future. A successful and properly enabled ESO is fundamental to system and market needs

Do you feel that the costs are reasonable for a programme of this complexity and scale? Are you happy to support the overall project costs?

As per previous comment, I think it important to judge costs partly on scale of the country's net zero ambitions and associated ambitions for distributed resources and EVs, as well as looking at the direct costs of balancing.
I think the costs presented to date are underestimated but am happy to support the overall costs.
Yes
Yes
Without looking at the costs in detail, given how consequential the programme is it deserves much effort and focus

No comment, but the costs should lead to huge benefits
I trust the ESO to put forward its best view on costs - which given the modular design can be presented in stages. My main concern is deliverability, plus whether the ESO procurement team can achieve pricing / is sufficiently incentivised to get value for money.
The costs seem reasonable at this stage- Although I will have another look and provide you with further feedback if necessary
yes
It is difficult to comment on this, I think the costs are large, however the overall long-term benefits are much greater.
On one hand it is clearly a lot of money, and there is a risk that it will cost more in the fullness of time. On the other hand, in the context of Net Zero and a ~£3bn pa balancing cost - it looks proportionate. I think the key is how the programme is governed. If costs can be kept to plan and the expected benefits realised then it will be a good investment. While approval may be sought in aggregate, I think it's important to think about whether some risks might be best managed by splitting up elements of the programme.
I am happy to support the ESO in this roadmap and share my company's opinion whenever needed.
Yes, the magnitude of the challenge and the potential upside for all stakeholders more than justify the costs
I do not have a good feel for the expected programme costs and therefore I am unable to say whether I support them. I can say that I understand that there is a very clear case for investment in balancing capability.
Yes. I support to make changes to achieve the net zero goal at the lowest cost.
Yes, I think the potential savings from success here means that the costs should reasonable, but Speed should be the focus
Whilst it's difficult to comment on the predicted costs as the project has a unique scope, I believe the project is necessary and agree that the project could result in significant cost savings across other areas which would result in a net saving
The feeling in the room when the costs were presented is that they were not high at all. This capability will be transformative and essential to enable the transition into the future, we are supportive of the project costs.
yes
Yes - considering the scale of the program and some past experiences I do have concerns cost overruns may derail some elements but overall supportive
Would like more details, but broadly supportive
Costs are considerable, however in the context of the amount of investment across the electricity industry, it is proportionate to ensure the investments that are being made have a physical and reliable route to market. The ESO requires the investment to ensure reliable system operation. However, the ESO must deliver the promised functionality this time

Could you explain your score? What other benefits do you see in the delivery of this programme?

My caveat is that there is still uncertainty associated with specification of some components - if the question had been "Will ESO manage the programme towards giving VFM" I would have ticked strongly agree.
I agree that the 'intended benefits' will deliver value for money, but have low levels of trust in those intended benefits being realised due to the previously mentioned lack of adequate resource and funding.
We should expect a multiplier effect here. Genuine success will draw more activity and more competition into the sector, which will reduce prices further.
Having more transparent and efficient balancing systems will enable a better/fairer dispatch of market assets, improve confidence and push investment on more assets that can provide balancing

I haven't looked at the costs in detail. The main benefit of the programme is enabling a proliferation of flexibility from non-traditional sources to participate in grid balancing.
Its hard to say at this stage whether it will deliver value for money. But the changes should lead to benefits for the market
Need to differentiate between what is economic vs strategic. I also noted the number of developers engaged in this workstream -great for their business models, however if poor self-regulation of markets they will quickly saturate leaving investors in a boom-bust cycle. The ESO's objective should be incentivised to create markets/ systems which yield fair value for consumers.
Hopefully a more 'modern' system that can accommodate and fairly treat newer, more flexible and smaller technologies that will be critical to GBs energy transition
The changes are clearly needed. Given the current and projected spend on balancing costs, new systems to streamline decision making have clear value
I have no doubt there are benefits but I think it will be really challenging to deliver. It's complex in its own right, before you take into account the level of change happening across ESO and wider industry.
Having sat through the engagement sessions, I cannot see how anyone could doubt that this work is urgently needed and that the consequences of not going ahead with it would be enormous.
Due to involvement in prior ESO projects, e.g. EBS, I have concerns about value. However, based on the approach that is being taken to this programme there is cause for optimism.
1. despatch a zero CO2 system; 2. reduce the BM cost; 3,ultimately power supply cost
As mentioned in my previous answer, the project could result in a net cost saving across the system (e.g. from better system efficiencies)
If the project is delivered as intended without any compromises then the capability it will bring will be beneficial. However, there is a risk that is not implemented in that way and could become a lost cost.
The scale of value from savings will significantly outweigh the risks of inaction
The proposed reforms are vital for the future integration of more distributed and flexibly tendered assets - the cost of inaction would be severe damage to the drive to net zero

Can you share your opinion on the ESO's proposals? Are you supportive of the benefits the ESO is seeking to deliver? Are you confident in their ability to deliver on this work?

See previous comment - I am confident in ESO's ability to work to high standard, but there is uncertainty over degree of challenge in some components.
The proposal, the ambition, and the approach all seem highly sensible and move systems at the heart of the industry to the place they need to be at. There also appears to be learning taken from other industries where using a 'micro-service' type approach and the ability to deliver continual updates rather than large version releases has been used for some time. This is clearly work that needs to be done and the benefits sought are clear. I however lack confidence in the ESO's ability to deliver on this due to a track record of failed delivery and missed deadlines in numerous areas.
Delivery will be a challenge; determination will be required. I am supportive of the goals and believe the benefits case has been made.
Early to judge proposals. I am supportive. I am not fully confident to deliver this work (because NGESO failed many times to deliver in the past), but I do hope you prove me wrong :) definitely reassuring to see that NGESO is finally giving the right importance to this topic, but implementation will be complex
Have we seen any ESO proposals? To date the programme has been about ESO being in listening mode. I would very much like to understand the development plan
Not yet clear on the specific proposals being taken forward (there were a lot of different ones discussed at the workgroups). But I am supportive of the benefits. I am kind of confident in the ability to deliver - there's

certainty the imperative to do the work, but concerned because of historical experience with large systems/IT delivery. Within NG and the energy industry more generally
Industry is rightly sceptical of the ESO's delivery record e.g. latest being the recent postponement of a comparatively simple Capacity Market tool. So much money was wasted by EBS (as well as the ongoing operability costs forgone) The ESO therefore has to get this right - and set expectations that achievable timescales are being set. The idea of implementation within a couple of years does not seem realistic - however ESO asked to work in line with price controls.
I strongly support ESO looking into a 'quick fix' for BM dispatch - In order for ESO to run a zero carbon SP by 2025 the BM needs to be able to serve smaller low carbon, flexible technologies. At the moment the BM does not provide a very attractive environment for batteries for example. I'm confident in ESO's ability to deliver this 'quick fix', however i worry about the speed at which ESO are willing to work at on this element
Supportive of the benefits. Not sure if the ESO can deliver in time.
Yes, the only thing I think is missing is the carbon intensity chunk of work and looking at how we can ensure we are dispatching low carbon plants. Nevertheless, I am supportive of the rest of the roadmap and hope that we can continue to work closely with NGESO
I'm very supportive of benefits. I think there will be real delivery challenges, but I hope that ESO is given the support to deliver.
I am supportive of the proposals and benefits that the ESO is seeking. I am worried that the technical complexity of it has been underestimated.
I am supportive of the aims of the programme, which it could be argued is somewhat overdue. With regards to delivery, per my previous answer, lessons seem to have been learned from previous programmes and therefore I believe ESO is now better placed to deliver.
I support net-zero market reform, nodal pricing and a new FSO. Yes, they can deliver.
I am generally supportive of the proposals and believe they could result in a positive impact to the ESO's systems and market participants. I am supportive of the intended benefits - specifically for the end result of a system which is more flexible, more automated, and can be adaptable to future changes. I believe the ESO can deliver the work, but I (like other industry participants) am conscious of the major assumptions behind the estimates for the system costs and timeline for implementation, i.e. I am not sure at this stage whether the estimated costs and/or timeline will be accurate.
I am supportive of the proposals and the benefits that ESO want to deliver, however the work is substantial and in an ever changing landscape the ability to deliver is uncertain. In recent experiences on delivery of "simpler" products the delivery has not always been smooth.
As long as the proposals reflect the direction of the system operation function that is required by market design
Yes - it was eye opening to see the challenges behind the scene but overall am supportive of the proposals and the timelines that have been worked on
Benefits have generally been well considered. In the past the ESO has struggled to deliver complex IT projects - hopefully lessons will be learnt from previous experiences. Also concerned about the general availability of skills/resource to deliver a very complex project.
Yes I support the proposals. I have some reservations as to whether the programme can be delivered given historical performance (EBS) however the approach being taken this time would seem to offer a better chance of success.

Do you endorse the co-created balancing roadmap?

Yes - there seemed to be a good consensus between ESO and industry.
Yes
100%, NGESO sees mostly their side of the problem, and we mostly see our side, so we have to get together to design something that can be valuable for both sides in the long term

I haven't seen, could you please point me to it?
Broadly yes
I support the majority - mostly around improving efficiency. I believe opening up systems/ markets is about more than chasing solutions for one technology type (which risks over-build/ market distortion/ boom & bust for investors).
Yes - I think directly listening to industry and adjusting the roadmap accordingly is crucial. I also think that ESO should maintain a level of flexibility in their approach, given how quickly energy markets and policy is developing and will develop over the coming years.
Yes
yes
As previously, I think it is challenging for someone external to the ESO to really understand the trade-offs in the roadmap. To the extent I understand these, I believe the ESO has done a good job to balance competing priorities
Yes, fully. However, I felt like some of the industry's requests like decisions that account for carbon were not addressed. This makes sense because the Balancing Transformation is likely not the mechanism to address them, but perhaps the ESO could do more engagements like this to cover those other regulatory/market concerns the industry has.
I have not had sufficient exposure to the roadmap to endorse it.
Broadly yes. Bear in mind a new IT should be able to despatch in the nodal pricing market arrangements.
Yes I broadly support the balancing roadmap and believe the suggested order of priority for works is reasonable
Yes, the roadmap has ambitious delivery targets. It is important that it is stuck to however and not allowed to slip.
Yes - the input from stakeholders was clear. There may be different ways to group activities around the additional functionality and performance created - but the constituent elements all make sense
Yes
Yes