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Sent by email to: Flexibility@ofgem.gov.uk
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Dear Mike

Regulatory treatment of Customer Load Active System Services (CLASS) as a balancing service in the RIIO-ED2 network price control

Thank you for the opportunity to comment on Ofgem's 17 March 2022 consultation for the regulatory treatment in RIIO-ED2 of Distribution Network Operators (DNOs) providing network voltage control and network management services, via the remote management of deployed network assets to the National Grid Electricity System Operator (ESO) for its balancing services activity (2022 Consultation). This response is not confidential.

Centrica opposes Ofgem's 2022 Consultation minded-to position. We responded to Ofgem's previous, February 2020, consultation on the regulatory treatment of CLASS (2020 Consultation). In our response to the 2020 Consultation we stated that implementing Ofgem's minded-to-position would be unlawful and would set a concerning precedent regarding DNO participation in competitive markets, which would damage investor confidence in the markets needed to deliver the transition to net zero.

Having reviewed Ofgem's 2022 Consultation and Impact Assessment (IA), we believe that Ofgem's minded-to position remains unlawful as explained in this response and Counsel's Opinion at Annex 1 to this response. Without prejudice to that position Ofgem has not demonstrated that consultation options 1A, 1B and 2 are in the best interest of consumers. We supported Ofgem's decision to take time to consider the points raised by respondents to the 2020 consultation and conduct an impact assessment. Regrettably, despite Ofgem acknowledging stakeholder concerns, the IA is inherently biased towards defending Ofgem's preferred option (Option 1A DRS8), indicating that Ofgem has closed its mind to other

options. In addition, the IA is not sufficient to adequately assess the impact of its minded-to position:

- Ofgem does not provide sufficient explanation regarding the relative merits of the different options considered.
- Ofgem's IA downplays the impacts of how CLASS is implemented on investor confidence.
- This in turn means that Ofgem's IA does not fully consider the impacts of CLASS on innovation in balancing services.
- Ofgem's IA does not consider the consumer benefits of potential other uses for the flexibility underpinning CLASS mentioned in the DNOs' ED2 plans, or how DNOs are incentivised to choose between use cases.
- Ofgem does not propose any mitigations for CLASS and the existing safeguards referenced in IA do not protect against the risks identified by market participants.

We remain concerned that Ofgem's minded-to position would set a very concerning precedent regarding DNO participation in competitive markets, which would damage investor confidence in flexibility assets in Great Britain at a critical time for the net zero transition. This would be in direct conflict with the stated aims of Government and Ofgem in their Smart Systems and Flexibility Plan.

We have further concerns that the scope of Ofgem's minded-to-position is not clear, and an ill-defined Direction would allow DNOs to broaden their entry into ESO markets by capturing flexibility from other voltage management programmes and even flexible connections like Active Network Management (ANM). These potential volumes are not considered by the IA, but such volumes would further damage competition and innovation in balancing services.

In the rest of this cover letter, we elaborate on our high-level position and rationale.

Ofgem's minded-to position would be unlawful

Ofgem's arguments regarding the legality of its use of the power to give directions under special condition CRC5C.10 are not persuasive.

We maintain our view that Ofgem does not have the power to direct that CLASS should be treated as a Directly Remunerated Service, including as a DRS8 service. Our arguments in respect of this are found in our attached Counsel's Opinion, which sets out how the provision of CLASS is not a service which is part of the normal activities of a DNO's distribution business, nor is it ancillary to that business. The Opinion also explains that Ofgem has failed to take into account the material consideration that a DNO providing CLASS falls outside the scope of the scheme which regulates balancing services.

Please see Counsel's Opinion as Annex 1 to this response.

Ofgem has not demonstrated its 'minded to' position is in the best interest of consumers

Without prejudice to our view that Ofgem does not have the power to direct that CLASS be treated as a directly remunerated service, and that DNOs providing CLASS falls outside of the scope of key regulatory provisions, the 2022 Consultation and IA also fail to demonstrate that its minded-to position is in the interest of consumers. In our response to the 2020 consultation, we instructed Towerhouse LLP, to assess at that time whether the 2020 consultation document provided a lawful basis for DNOs to offer CLASS services. A key

flaw identified by Towerhouse was that Ofgem appeared fixated on protecting CLASS as an end in itself, instead of properly analysing the market.

Although Ofgem appears to have recognised the deficiencies in its original consultation approach and has tried to correct these - primarily by undertaking an impact assessment based on what it has identified as the relevant market for CLASS and potential impacts - significant concerns remain. Ofgem continues to fail to apply its principal objective to protect the interests of consumers, wherever appropriate by promoting effective competition.

Ofgem's 2022 Impact Assessment is not balanced and is inherently biased in favour of defending its historic preference for DRS8 as a mechanism to allow CLASS participation in ESO markets.

Ofgem has failed to obtain and review in the IA evidence that stakeholders do not have direct access to because it is held by the regulated network companies. For example, Ofgem has not properly:

- considered the needs of future as well as current consumers;
- examined the technical capabilities of CLASS and the consequences these have for, DNOs' plans for CLASS roll out;
- provided evidence of ENWL's experience using CLASS in ED1 (beyond a review of maintenance records and market share data provided by the ESO);
- considered alternative uses for CLASS flexibility that would provide better value to consumers and whether DNOs are incentivised to choose highest value outcome for consumers (we address this below);
- considered CLASS service conflicts (e.g., with other voltage optimisation programmes, Active Network Management (ANM) or ESO/DSO dispatch instructions to flexibility providers in the same area);
- considered how the costs of alternative balancing service providers are likely to come down over time or with scale;
- considered that the ESO's new balancing services products have been designed to be more efficient for the ESO, meaning that less volume may be procured relative to legacy products, exacerbating the competition issue.

Ofgem has not considered alternative uses for CLASS flexibility that provide higher net benefits to consumers

We believe that flexibility derived from DNOs' regulated assets must be used to support the DNOs' regulatory obligations to operate a secure and efficient network. Ofgem has ignored evidence in the DNOs' final ED2 Business Plans that demonstrates other uses for CLASS flexibility that provide greater economic benefit to consumers, including through the avoided cost of carbon emissions, such as voltage optimisation projects which can help reduce network constraints and enable more Low Carbon Technologies (LCTs) to connect to the network faster and at lower cost.

A good example of this is Northern Powergrid's (NPG's) ED2 Business Plan. NPG said that CLASS, as a demand reduction service, directly conflicts with its voltage optimisation proposal (deliverable WS3.2) because they both seek to minimise voltages to reduce

demand.¹ NPG estimates that voltage optimisation will benefit customers more overall with a Net Present Value (NPV) of £249m, than the provision of CLASS services (estimated NPV for NPG's customers of £40m). NPG calculates that voltage optimisation would benefit its customers roughly £20 p.a. per customer. This should be compared to Ofgem's estimated saving from allowing CLASS of £0.30 to £1.24 annual bill reduction per household for Option 1A DRS8.² Other DNOs have proposed similar voltage optimisation projects for ED2.

The RIIO-ED2 framework does not incentivise DNOs to choose the use which provides the highest value to consumers. Ofgem's minded-to position risks incentivising DNOs to invest in and utilise CLASS in preference to measures that would deliver greater reductions in consumer bills.

We have an open view on the DNOs' proposed use of voltage optimisation in their ED2 plans. There has been no material discussion of how this could impact industry market participants and interact with DNO procurement of flexibility services, but provided these projects are not used to enter competitive markets, their use more closely aligns with the DNOs' regulatory responsibilities.

Because Ofgem has neither considered CLASS alternative uses nor CLASS interactions with other DNO activities (e.g., Active Network Management (ANM)), Ofgem cannot demonstrate that its minded to position is in the best interests of consumers.

The scope of Ofgem's minded-to-position is not clear: Ofgem must not create a precedent that broadens DNO entry into competitive markets

Ofgem is not precise on what would be included in a DRS8 or DRS9 Direction for ED2. The wording of the 2016 DRS8 Direction³ is not specific to the CLASS technology derived from ENWL's innovation project of the same name and covers the more general "voltage control and network management services". Since 2016, various DNOs have raised the potential to provide balancing services to the ESO using other voltage control products and network management tools. Investors will be concerned that DNOs could use Ofgem's minded-to-position on CLASS to offer additional balancing service volumes. Provision of these volumes create the same or greater concerns for investors – for example allowing DNOs to optimise ANM into ESO services would create an incentive for DNOs to interrupt distributed generation.

Ofgem's proposal is not in the long-term interests of consumers

There are good reasons to believe that allowing CLASS to continue to provide balancing services to the ESO runs against the interests of current and future consumers. Ofgem and BEIS recognise the importance of flexibility for the efficient operation of the future energy system – estimating that flexibility has the potential to save consumers between £6-10bn per

¹ NPG ED2 Business Plan Annex 4.2 DSO Strategy Deliverables DSO4.3 and DSO4.6 and [Annex 4.4](#) Whole Systems Strategy Appendix 3 WS3.2. NPG says that voltage optimisation is in conflict with CLASS as a demand reduction service – which is the main use for CLASS - but could complement the provision of upward system frequency provision and does not conflict with reactive power services. NPG intends to offer these other CLASS services to the ESO.

² 2022 Ofgem CLASS Impact Assessment paragraph 3.12 p32

³ 2016 CLASS Direction

https://www.ofgem.gov.uk/sites/default/files/docs/2016/04/dno_voltage_control_drs8_direction.pdf

year by 2050.⁴ Ofgem approving CLASS for ED2 would risk stalling much needed investment in flexibility by commercial providers, including delaying the rollout of residential demand side response propositions.

Ofgem has decided not to quantify the “hidden costs” of the DNOs’ provision of CLASS that NERA identified as associated with the provision of CLASS in 2020 report for Energy UK⁵. Further hidden costs were identified in stakeholder responses to the 2020 consultation. This is a flaw in their analysis and Ofgem needs to consider the impact that these costs have in aggregate.

Commercial flexibility providers cannot compete with CLASS – which will almost always be cheaper because DNOs do not face the same costs by virtue of their unique position as regulated energy network monopolies funded through a price control regime. When providing CLASS from their regulated assets, DNOs do not pay for the energy, do not face marketing and contract management costs and under DRS8 DNOs return a significantly lower share of their profits to their customers than a commercial aggregator would.

Without properly assessing the consequences CLASS has for flexibility investment at this key time Ofgem has no grounds to claim that CLASS is in the interests of consumers.

Mitigations and safeguards

Ofgem does not propose any mitigations for CLASS in its minded-to position. The existing safeguards referenced in the IA do not protect against the risks identified by market participants – for example Ofgem has not evidenced any DNO plans for conflict-of-interest management relating to the provision of CLASS and the ESO’s licence conditions give it very limited abilities to balance short-term reductions in balancing costs against longer-term needs.

In our previous response we said that before reaching a decision, Ofgem would need to consider the measures which could mitigate the risk of CLASS damaging competition and innovation in the balancing services market to the detriment of consumers.

Mitigations would need to achieve two specific outcomes:

- Ensuring a level-playing field - to avoid anti-competitive behaviours and encourage market entry, and
- Providing support for learning and innovation – enabling nascent markets to develop and deliver long-term dynamic competition.

⁴ 2012 prices, undiscounted. 2021 Smart Systems and Flexibility Plan, Appendix 1: Electricity System Flexibility Modelling

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003787/smart-systems-appendix-i-electricity-system-flexibility-modelling.pdf

⁵ Energy UK commissioned NERA Economic Consulting (NERA) to review and assess Ofgem’s economic arguments in support of its minded-to position. NERA found that Ofgem has not sufficiently considered “hidden costs” of the DNOs’ provision of CLASS or that balancing service procurement may not be efficient. NERA found a number of hidden costs associated with the provision of CLASS, which may have led and could lead to the ESO procuring CLASS when it is not economically efficient to do so. We agreed with this assessment.

In our previous response we listed several potential mitigations – drawing on examples previously used in energy markets and other sectors. Other respondents also put forward a range of mitigations that could help towards achieving those outcomes. Ofgem ignored most of these recommendations and rejected the proposals it did consider without sufficient evidence. Ofgem has not proposed mitigations of its own. Instead Ofgem seeks to rely on existing competition law and licence obligations which are not designed to deal with the situation where regulated natural monopolies are using their assets to enter competitive markets.

Our position remains that CLASS should be prohibited. Without prejudice to our position that permitting CLASS would be unlawful, if Ofgem did permit it then at the very least Ofgem would have to adopt the mitigation option put forward by the Association of Decentralised Energy (ADE) in its 2020 response of capping the volume of DNO tenders that can be accepted by the ESO to 10% of the total MW of accepted bids.

We expand on potential mitigations and Ofgem's coverage of these in the IA in our response to Questions 5 and 6.

Conclusion

Ofgem's minded-to position would be unlawful. Furthermore, Ofgem has failed to provide robust and comprehensive evidence that CLASS is in the interests of consumers. The 2022 consultation and IA do not properly consider the longer-term impacts of CLASS in delaying investment in assets and business models needed to support zero carbon operation of the electricity system, do not consider alternative uses for CLASS flexibility, and do not offer any meaningful mitigations. Ofgem's minded-to position remains beset with difficulties and if Ofgem were to proceed with it, they would be vulnerable to successful challenge.

We have responded to the consultation questions in Appendix 1 below.

I hope you find this response useful. If you would like to discuss anything in further detail, please contact me at helen.stack@centrica.com.

Yours sincerely

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Centrica Regulatory Affairs, UK & Ireland

Cc Tim Dewhurst, Charlotte Ramsay, Richard Smith

Appendix 1 – Consultation Questions

Question 1: Do you agree that the approach taken in our Impact Assessment is proportionate and balances the trade-offs between the scale of expected impacts and the cost of doing further analysis relative to the benefits such analysis may yield?

Ofgem's minded-to decision to approve CLASS is diametrically opposed to the principle it accepts elsewhere that regulated networks should not be involved in market activities. Therefore, if Ofgem is to justify taking its position the evidence and analysis to justify this decision must be extensive, compelling, and robust. The 2022 CLASS Impact Assessment (IA) does not deliver this evidence and contains an implicit bias towards Option 1A (DRS8) throughout. The Ofgem IA is neither full, nor balanced. Hence, Ofgem should not allow CLASS in the ED2 price control on the basis of this IA.

Under the following sub-headings, we comment on the IA sections, starting with our views on Ofgem's overall approach to the IA.

Section 2 – Approach to the Impact Assessment

We supported Ofgem's decision to take time to consider the points raised by respondents to the 2020 consultation and conduct an impact assessment. Regrettably, despite Ofgem acknowledging stakeholder concerns, the impact assessment is inherently biased towards defending Ofgem's preferred option (Option 1A DRS8) and not robust.

- Ofgem does not provide sufficient explanation regarding the relative merits of the different options considered.
- Ofgem's IA downplays the impacts of how CLASS is implemented on investor confidence.
- This in turn means that Ofgem's IA does not fully consider the impacts of CLASS on innovation in balancing services.
- Ofgem's IA does not consider the consumer benefits of potential other uses for the flexibility underpinning CLASS mentioned in the DNOs' ED2 plans, or how DNOs are incentivised to choose between use cases.

Ofgem does not provide sufficient explanation regarding the relative merits of the different options considered

The IA contains a mix of quantitative and qualitative analysis.

In terms of the quantitative analysis, Ofgem relies on NERA's analysis of the overall costs and benefits to society of the different options and the options' distributional impacts (for DNOs, alternative flexibility providers and customers).

NERA's analysis assumes that the same amount of CLASS capacity is procured by the ESO under each option. Hence the monetised net benefits from a societal perspective are virtually identical across the options. The monetised impact on customers is significantly more positive under Options 1B and Option 2, compared to Option 1A.

Clearly, the results of the quantitative analysis are not sufficient to support the choice of Option 1A. Qualitative factors must therefore play an important part in Ofgem's decision-making.

We consider this analysis to be overly simplistic. The options differ significantly in terms of the incentives they give DNOs (and the resulting risks they entail for customers in the short- and long-term). However, Ofgem's qualitative reasoning for preferring Option 1A is essentially contained in just one paragraph.⁶

Ofgem may downplay impacts on investor confidence

Ofgem, correctly notes that *"...investor confidence in flexibility services could be undermined more generally by the perception that there is reduced opportunity to invest in balancing services due to more limited revenue streams... The risk premia associated with regulatory uncertainty and heightened revenue risk could feed through to a higher hurdle rate that means more marginal investment cases are not brought forward"*.⁷

We would emphasise Ofgem's reference to regulatory uncertainty. The amount of CLASS capacity deployed, and the specific balancing services it will compete for, will depend on regulatory decisions around DNO (and ESO) incentives which are not yet made. Commercial investors are less well-placed to manage such risks.

Ofgem however then goes on to argue that other factors may limit the negative impact of CLASS on investor confidence, including that:

- ESO's overall requirements for balancing services are expected to grow over time;
- CLASS is limited in the balancing services it can provide;
- That clearing prices for balancing services may not be substantially affected, as CLASS is an inframarginal technology; and
- That Ofgem's position would be "...in effect a direction on the use of CLASS in RIIO-ED2 only, such that there would be scope to review the future regulatory treatment if some of these concerns were to materialise".⁸

Our response to these points is as follows:

The ESO's growing requirements for flexibility may mitigate (though not eliminate) the impact of CLASS on investor risk in the longer term. The ESO's new response and reserve products are more efficient than the balancing services analysed in the IA and require relatively less volume, somewhat offsetting the increase in overall requirements for balancing services.

Despite Ofgem's assertion that CLASS is limited in the services it can provide, Ofgem has not actually provided clarity on the technical characteristics of CLASS. While Ofgem provides an indicative mapping of CLASS eligibility to NG ESO services procured under ED1 and ED2, Ofgem does not provide sufficient information to verify the accuracy of this mapping. Given the services CLASS can deliver is an important input to NERA's analysis, it is especially important for stakeholders to be able to have this information.

In light of this, it is difficult to see how commercial players would not still perceive risks around the level of competition they will face from CLASS. Ofgem's statement that the treatment of CLASS may be reviewed in future does not negate these risks. Indeed, the wide

⁶ Paragraph 3.13, Ofgem IA. Similar text is contained in the Executive Summary (p.7, Ofgem IA).

⁷ Paragraphs 4.89 and 4.90, Ofgem IA.

⁸ Paragraph 4.96, Ofgem IA.

sensitivity ranges for CLASS capacity deployed considered by Ofgem (from 150-300MW aggregated response in Scenario A to 1,441-2,881MW in Scenario C) shows that Ofgem considers the uncertainties to be substantial. This uncertainty could, for example, have been reflected quantitatively through assuming a higher unit cost of non-CLASS capacity under the options considered, compared to the counterfactual (reflecting a higher cost of capital). This would reduce the monetised net benefit of the options considered.

Ofgem has not fully considered the impacts of CLASS on innovation in balancing services

Given decarbonisation objectives, the market needs to shift from conventional forms of flexibility (e.g., reciprocating engines) to lower-carbon forms of flexibility, such as batteries, vehicle-to-grid (V2G) and customer aggregation. CLASS will not cover all ESO balancing needs, and alternative (commercial) low carbon balancing service providers will be needed, especially as ESO needs increase in the longer term.

The costs of low-carbon flexibility should come down in cost over time or with scale. In principle, given sufficient visibility and certainty over the size of the future market, commercial investors could decide that it is nevertheless worth investing in such technologies today, in order to capture future market share. Alternatively, ESO could be given a specific responsibility to develop future technologies (to help reduce costs for the consumers in the long-run).

Neither of these conditions currently holds. ESO does not have any obligation to develop the future market. And, as noted in the previous section, investors in alternative forms of flexibility face significant uncertainties.

As a result, there is a risk that enabling CLASS could lead to the longer-run costs of balancing the system being higher than would be efficient.

NERA does appear to implicitly acknowledge this limitation:

“The core of our analysis of balancing services is static rather than dynamic. We model the merit orders for balancing services across our modelling period based on historical bids... It does not include dynamic impacts such as the effect of regulation on investment signals for non-CLASS (or CLASS) capacity.”⁹

NERA also carries out sensitivities on the annual change in non-CLASS capacity costs over time (+/- 2% per year). However, our understanding (though it is not entirely clear) is that these sensitivities are applied in exactly the same way across the options considered and the counterfactual. The purpose of these sensitivities is therefore more generally to capture uncertainty in future cost developments

Provided our understanding is correct, the sensitivities do not consider the possibility that the future trajectory of non-CLASS costs could itself be affected by the use of CLASS (i.e., could be different in the counterfactual compared to the options considered).

From reading Ofgem’s justification for preferring Option 1A over Option 2¹⁰, Ofgem seems to have considered the possibility that lower procurement (and reduced competition) of

⁹ NERA Impact Assessment for CLASS (Prepared for Ofgem) February 2022, A.3.1. p16.

¹⁰ Paragraph 3.13, Ofgem IA “.....under Option 2: Price Control, there would be a considerable reduction in the quantify [sic] of competitively procured balancing services and this could have a determinantal [sic] effect on consumers if reduced competition results in higher prices and lower rates of innovation in the wider market.”

commercial flexibility could lead to lower innovation. It is therefore surprising that Ofgem has not applied the same logic in comparing the impact of enabling CLASS more generally, compared to the counterfactual. While the impacts of enabling CLASS on future non-CLASS costs are uncertain, in principle, it would have been possible for either Ofgem or NERA to illustrate them through sensitivity analysis.

The IA contains limited new evidence on CLASS

In our 2020 response we said Ofgem would have access to evidence that market participants do not have on CLASS, therefore Ofgem had the responsibility to extract and analyse this evidence as part of a robust IA. We believe Ofgem has failed in this respect. The IA contains little new evidence on CLASS, beyond what was available in 2020 (either in Ofgem's consultation document or in ENWL's CLASS project document library¹¹). For example, Ofgem has not properly:

- examined the technical capabilities of CLASS and the consequences these have for DNOs plans for CLASS roll out;
- provided evidence of ENWL's experience using CLASS in ED1 (beyond a review of maintenance records and market share data provided by the ESO);
- considered alternative uses for CLASS flexibility that would better value to consumers and whether DNOs are incentivised to choose highest value outcome for consumers (we address this below);
- considered CLASS service conflicts (e.g., with other voltage optimisation programmes, Active Network Management (ANM) or ESO/DSO dispatch instructions to flexibility providers in the same area);
- considered how the costs of alternative providers are likely to come down over time or with scale;
- considered that the ESO's new balancing services products have been designed to be more efficient for the ESO, meaning that less volume may be procured relative to legacy products, exacerbating the competition issue;
- considered the needs of future as well as current consumers.

We believe that the large scale roll out in the IA's deployment scenarios is more likely. This is based on five out of the six DNOs have said since the 2020 consultation that they will look at deploying CLASS for ED2.¹² Throughout the IA we believe Ofgem should have done more to obtain and share information from the DNOs on their CLASS plans, including the product markets they would aim CLASS at.

Ofgem should have shared more information on the technical capabilities of CLASS, in particular the speed of CLASS response, and how these could influence CLASS participation in the different markets that CLASS could participate in during ED2.

Section 3 – Monetised Cost Benefit Analysis

It is not surprising that NERA's NPV calculations are positive for Options 1A, 1B and 2. CLASS will inevitably appear to have a greater NPV benefit when assessed in this way

¹¹ ENWL CLASS project, Learning & key documents - <https://www.enwl.co.uk/go-net-zero/innovation/key-projects/class/learning-and-key-documents/>

¹² Based on a combination of DNOs' final ED2 Business Plans, and SPEN's June 2020 DSO Strategy

because DNOs do not face the same costs as commercial providers. We listed these costs in our 2020 response.

The monetised CBA does not provide a full story. As presented, it does not consider how the differing DNO incentives between the options might affect outcomes in the short and long-term. It seems odd that Option 1B has been ruled out given the significant higher cash-flow benefits to consumers relative to Option 1A.

It would have been reasonable for Ofgem or NERA to have considered possible reductions in the cost of alternative flexibility over time and how this might vary between the different options and counterfactual across the scenarios considered.

Section 4 – Hard to monetise costs

A decision to approve CLASS for ED2 will negatively impact investor confidence in flexibility assets and business models that can provide grid services. We welcome the initiatives Ofgem has pursued through the Smart Systems and Flexibility Plan to remove barriers to flexibility. However, these efforts will have been in vain if CLASS results in the most valuable balancing service markets becoming un-investible in the short to medium term for commercial flexibility.

In paragraph 4.93 Ofgem says the ESO's requirements 'may increase in the future' but does not say when the future is. The ESO's new balancing service products are more efficient and in the short-medium term the ESO will not need as much of these relative to the products they replace. We understand the larger increases in ESO requirements will happen closer to the 2030s.

The degree of downward cost trend for flexibility technologies that you could see in the future will depend on what is able to be deployed today. Ofgem could have asked NERA to model the implications of commercial flexibility investment stalling in ED2 and the implications that that has relative to the counterfactual for ESO balancing costs in the longer-term.

If CLASS causes investors to delay investing in flexibility services, this could create a scenario where the ESO is forced to create new more valuable products to incentivise investment in the market. This would add to consumer costs and potentially negate the cost benefits of CLASS to the ESO

Ofgem could have done more to monetise the likely harm to investor confidence from allowing CLASS, specifically the impact that this could have on ESO balancing costs in the future if CLASS results in delayed investment by alternative providers of flexibility, including in the aggregation of DSR from smart devices in the home

Section 5 – Hard to monetise benefits

Ofgem has not properly considered the opportunity costs of using either CLASS technology (remote control) or the assets that enable CLASS to provide flexibility to the ESO (transformer, sub-station and local network) for other purposes, i.e., ones that would be part of the normal activities of a DNO's distribution business such as enabling the connection of low carbon technologies.

Ofgem is wrong to use ENWL's historic sole use of CLASS to offer reserve or frequency response services to the ESO as justification for not assigning a value to other beneficial uses for CLASS.

Several DNOs ED2 plans confirm that there are other uses for CLASS or voltage control using the same network components. The clearest example of this is from NPG's ED2 plans.

NPG's ED2 Business Plan said that delivering CLASS as a service is in direct conflict with its voltage optimisation deliverables (which are business as usual delivery of its BEET project). NPG estimated the NPV benefit to customers of both deliverables. NPG estimated that BEET voltage optimisation would benefit consumers in the region of £20 p.a. per customer with an NPV of £249m, compared to CLASS with an estimated NPV of £40m for its customers. BEET voltage optimisation seeks to minimise voltages continuously, whereas CLASS seeks to reduce demand only when required to manage frequency on behalf of the ESO. Most other DNOs plan to start implementing conservation voltage reduction in ED2 (e.g., SSEN's Conservative Voltage Reduction (CVR), WPD's Network Equilibrium, ENWL's Smart Street/Quest etc.)

WPD says its Network Equilibrium project has the benefit of allowing additional low carbon technology (both demand and generation) to be integrated to the network, plus lower DUoS charges for customers, due to lowering the socialised part of DG connections. The DUoS benefit for consumers is likely to be more pronounced following the implementation of Ofgem's Access SCR reforms when there is greater socialisation of reinforcement costs.

Given that several DNOs have monetised the benefits of these projects in their ED2 plans it would be entirely proportionate for Ofgem to quantify these.

Section 6 – Competition Impacts

Under paragraph 3.49 of the 2022 Consultation, Ofgem recognises that anti-competitive behaviour has the potential to deter investment in the market which results in negative outcomes for consumers. However, Ofgem's analysis determines there is a lack of evidence of distortion to competition based on the lack of historical evidence of anti-competitive behaviour relating to ENWL's provision of CLASS. This does not take account of the potential composition and characteristics of the future market that Ofgem is attempting to facilitate, where potentially all DNOs would provide CLASS services.

Where Ofgem does attempt to assess potential impacts of its policy on a future market, it instead narrowly concentrates on its view that achieving a high percentage of market share in a particular service in itself is not evidence of abuse of dominance or harm to consumers, DNOs would be unlikely to secure a dominant position, and potential anti-competitive behaviour would have a minimal impact. This analysis is speculative and prejudices the ability of other flexibility providers to compete on a level playing field.

Ofgem is harming the ability of flexibility providers to compete on a level playing field at a time when a positive investment environment is crucial to support the transition to net zero.

Also, Ofgem does need to look at the impact on specific balancing service markets because under DRS8 DNOs are incentivised to put CLASS into the highest value market. If CLASS dominates a single high value market, then the other markets may not provide sufficient value to support commercial investment.

Ofgem has not considered the potential impact on the ESO's new balancing services markets, which have been designed to be more efficient for the ESO, meaning that less volume should be procured, exacerbating the competition issue.

Question 2: Do you agree that our sensitivity analysis captures a reasonable range of uncertainty over the likely costs and benefits of deploying CLASS as a balancing service?

Because of the way that CLASS flexibility is derived from DNOs' regulated assets and customer load, it will always appear cheaper in the short-term than the counterfactual of prohibiting CLASS. Therefore, Ofgem could apply a wide range of sensitivities to the costs that it has chosen to quantify, and CLASS will have a positive NPV.

We do think that Ofgem should have obtained more evidence to inform its sensitivity analysis and to quantify the costs and benefits.

Ofgem should have obtained evidence from the GB DNOs on the extent to which they intend to deploy CLASS in ED2. We believe that at least 5 of the 6 GB DNOs have plans to use CLASS based on their (publicly available) published DSO Strategies and business plans for ED2.¹³ This suggests that IA should focus on assessing the impact of a high rollout. This demonstrates once again why we believe the Impact Assessment is not sufficiently robust.

Question 3: Do you agree that it would not be proportionate for Elexon to work with industry to develop a solution to adjusting supplier imbalance positions via the Modification process in response to CLASS activations at this stage?

Without prejudice to the fact that we do not support Ofgem's minded-to position, any solution to Question 3 must not result in DNOs being given further preferential treatment over commercial electricity suppliers and aggregators. Therefore, the decision to develop or not develop a solution to adjusting supplier imbalances must result in suppliers, aggregators and the DNOs being treated equally.

Question 4: Do you agree with our assessment that there is no evidence that competition is currently being distorted or impeded by the participation of CLASS?

Ofgem can't rely on ENWL's current and past participation in ESO markets as evidence that competition would not be distorted or impeded in the future. What we can see from the evidence Ofgem presents on ENWL's participation in the markets to date is that one DNO is capable of taking up a significant share of specific balancing service markets and the cost characteristics of CLASS allow the DNO to profit maximise.

Question 5: Do you think existing safeguards (including licence obligations and competition law) against DNOs taking advantage of their DNO role in the context of participating in the balancing markets with CLASS are sufficient?

Safeguards based on licence obligations and the RIIO-ED2 framework

No. Existing safeguards are not sufficient and Ofgem does not propose any mitigations for CLASS in its minded-to decision. Concrete mitigations must be included if CLASS is approved for RIIO-ED2. These should be in addition to Ofgem ensuring that wider safeguards are in place to deliver broader conflict of interest management measures for

¹³ Based on a combination of DNOs' final ED2 Business Plans, and SPEN's June 2020 DSO Strategy.

DSO functions and that the ESO has the powers and obligations to balance the needs of current and future customers.

The existing DNO and ESO licence obligations only contain very weak measures. For example, DSO functions are not fully defined in the DNO licence conditions and Ofgem has left it to individual DNOs to define how they would address real and perceived conflicts of interest. Some DNOs recognise the potential for the provision of CLASS services to conflict with their DSO role as a neutral facilitator of the market in their ED2 plans (e.g., SSEN ED2 DSO Strategy p51 para 4.6.3¹⁴).

Ofgem's live review of DSO governance¹⁵ is evidence that Ofgem accepts that the current regulatory framework is not fit for purpose. Ofgem launched a Call for Input on 26 April 2022. Even if this results in robust separation of DSO functions from the DNO – including legal or ownership unbundling – and CLASS remains with the DNO, this does not address the problems associated with CLASS services being underpinned by the DNOs regulated assets. Furthermore, if the DSO governance review results in a need for new legislation, implementation is unachievable for the start of ED2 and could even be delayed until the start of the next price control, ED3.

In the meantime, Ofgem's baseline expectations and the proposals DNOs have put forward on how they plan to meet these are not sufficient to protect against the potential harms of CLASS.

In Ofgem's ED2 Business Plan Guidance¹⁶ DNOs were given a baseline expectation of demonstrating how they would introduce measures "to address actual and perceived conflicts of between its DSO and network ownership roles or other business interests". Ofgem gave CLASS as an example of "other business interests". As far as we can see no DNOs have demonstrated in any detail how they would do this for CLASS.¹⁷ As importantly, if measures had been proposed, Ofgem has not provided any evidence on how these would be made binding and or enforced.

There are no safeguards to ensure DNOs choose the best outcome for consumers

Option 1A DRS8 would perversely incentivise DNOs to provide CLASS services to the ESO in preference to using the assets underlying CLASS in for alternative purposes that would provide higher net benefits to consumers and higher carbon savings. We gave the example from NPG's business plan in response to Question 1 and noted that other DNOs are planning to implement similar voltage optimisation measures. Ofgem needs to ensure that the RIIO-ED2 framework drives DNOs to choose the option that would provide the highest benefit to consumers.

DNOs may point to voltage optimisation plans as a benefit which could count towards the Business Plan Incentive (BPI), which is an up-front reward or penalty depending on the

¹⁴ SSEN RIIO-ED2 Business Plan Annex 11.1 DSO Strategy

<https://www.ssen.co.uk/globalassets/about-us/dso/ed2-dso-strategy-annex.pdf>

¹⁵ Ofgem Call for Input: Future of local energy institutions and governance

<https://www.ofgem.gov.uk/publications/call-input-future-local-energy-institutions-and-governance>

¹⁶ RIIO-ED2 Business Plan Guidance, Role 3: Market development baseline expectations, paragraph 3.2.5 and footnote 71. <https://www.ofgem.gov.uk/publications/riio-ed2-business-plan-guidance>

¹⁷ ENWL's Business Plan says p24 that "CLASS is a DNO activity though the decisions about best use of CLASS capability alongside a range of other options (e.g., EE, other balancing service) is an ESO/DSO activity and choice."

quality of the business plan. However, any reward under the BPI is not dependent on actual delivery.

The ESO is not obliged to balance the needs of current and future consumers

The ESO's licence obligations are not sufficiently explicit on the need to balance short-term reductions in balancing cost against the need to foster markets that deliver balancing cost savings in the longer term. We do not see a clear incentive for the ESO to pursue diversity of flexibility provision today in the name of potential future cost reductions. The same applies to issues of resilience, including through platform and technology diversity. The ESO's response to the 2020 consultation suggested that existing safeguards were not appropriate and called for a review of the ESO's C16 licence condition. Ofgem fails to address this gap in its 2022 minded-to position.

Question 6: What additional measures do you think would be effective and proportionate to address actual or perceived conflicts of interest with respect to CLASS?

Ofgem does not propose any mitigations for its minded-to position and rejects the various additional measures put forward by respondents to the 2020 consultation.

Without prejudice to our position that permitting CLASS would be unlawful, any framework that allows CLASS would require Ofgem to implement additional measures to mitigate the risks of conflicts of interest. Given the advantages DNOs inherently have as providers in a non-contestable market, and how that monopoly position can be leveraged to distort competition in a contestable market, Ofgem should not be putting rules in place that do not adequately protect against this real risk. In addition, it is in the best interests of consumers that participants within contestable markets operate on a level playing field. Ofgem appear to have closed their mind to viable options in terms of mitigations, and it is also not proportionate given the potential impacts and the time Ofgem has taken. This would render any decision unreasonable.

Any measures to address actual or perceived conflicts of interest with respect to CLASS will need to be robust and implementable for 1 April 2023, otherwise Ofgem must prohibit CLASS.

In our 2020 CLASS submission we examined a range of mitigations that could be used and concluded that any mitigations sufficient to address conflicts of interest were unlikely to be considered proportionate. Therefore, we concluded that the most efficient solution is to ban use of CLASS. We still hold this position.

In our 2020 response we said that if Ofgem did permit CLASS then the Association of Decentralised Energy's (ADE's) proposals of capping the volume of DNO tenders that can be accepted by the ESO to 10% of the total MW of accepted bids (per balancing service). An alternative mitigation proposed¹⁸ during the 2020 consultation that merits consideration is for Ofgem to mandate a tiered approach that prioritises the use of CLASS to deliver the DNOs licence obligations and responsibilities. Under this proposal, DNOs would be required to prioritise the use of CLASS assets for the resolution of network issues¹⁹ (i.e., to maintain

¹⁸ CLASS 2020 Stakeholder Responses – submission by Origami Energy

¹⁹ If this proposal was adopted, DNOs should first test the market for flexible solutions to compare the costs of these against the costs of CLASS deployment to manage network constraints, in line with SSEN's ED2 DSO Strategy 6.4.2 p71.

network security, alleviate customer constraints and provide additional headroom for the connection of generation and/or demand customers) before being able to use CLASS assets in the provision of services to the ESO via the competitive market.

Therefore, in addition to further consideration of the additional measures proposed by respondents to the 2020 consultation and after reviewing any new proposals received as a result of this consultation, Ofgem would need to do the following.

- Ofgem would need to ensure RIIO-ED2 contains minimum no-regrets measures across all DNOs to ensure DSO and DNO neutrality, pending the outcome of Ofgem's DSO governance review. CLASS must be separated from DSO functions and there must also be sufficient separation from DNO activities to avoid conflict-of-interests and cross-subsidies within the DNO.
- Ofgem would need to include measures in RIIO-ED2 or licence conditions to ensure DNOs choose the options that create the most value for consumers.
- Ofgem would need to strengthen the ESO licence conditions to give National Grid ESO clearer powers and duties to balance the needs of current and future consumers.
- Ofgem would need to clarify that any Direction only applies to CLASS technology and DNOs are not being allowed to offer ESO balancing services using any other form of voltage or network flexibility.

Question 7: Do you agree that our minded-to position provides the most efficient incentive for CLASS's participation in balancing services?

Legal framework

We maintain our view that the Authority does not have the power to direct that CLASS should be treated as a Directly Remunerated Service, including as a DRS8 service. Our arguments in respect of this are found in our attached Counsel's Opinion. The Opinion also sets out how the Authority has failed to have regard to a material consideration, namely the fact that a DNO providing CLASS would fall outside the scope of key legislation regulating the provision of balancing services.

Ofgem's choice between Options 1A, 1B, 2 and 3

As mentioned in our response to Q1 on the approach to the IA, Ofgem does not provide sufficient explanation regarding the relative merits of the different options considered. The results of the quantitative analysis are not sufficient to support the minded-to position. Please see our response to Q1, where we expand on this point.

We are surprised that there is no consultation question on DRS9 as an option given that the NERA IA shows that the NPV of cash flow impacts for customers in the medium deployment scenario is £1,439.3 under DRS9, compared with £760.5 under DRS8 whilst the impact on alternative balancing service providers is the same. The difference is down to the profits retained by DNOs under DRS9.

Ofgem's decision should be based on delivering efficient outcomes for current and future consumers. Ofgem's IA clearly shows that under DRS8 during ED1, ENWL has been profit maximising and pricing CLASS just below the price of its nearest competitor. Under its DRS8 arrangements ENWL receives over 58% of its profit, and consumers receive only 42%. A profit split of this type is unheard of in the aggregator market, where the customer receives the vast majority of profit. This affirms the position we took in our 2020 response

that, that customers will be losing out because they will be paying for all of the higher bid costs for the ESO (compared to DRS9) but only receiving a share back through distribution charges.

Without prejudice to our position that permitting CLASS would be unlawful, any framework that allows CLASS must not distort the DNO's overall investment decisions. There are alternative uses for the DNOs' regulated assets that provide the flexibility that enables CLASS. Ofgem needs to consider an outcome that results in efficient investment for the whole network.

Question 8: Do you agree that requiring CLASS in the price control would not promote efficient investment signals in CLASS and could distort competitive outcomes?

CLASS will distort competitive outcomes if it is allowed in any form to provide balancing services to the ESO in the competitive market because it is significantly cheaper because DNOs do not bear the same costs as commercial providers. NERA's analysis shows that within the same deployment scenario, the impact on alternative providers does not differ significantly between the different regulatory options.

Net Present Value of Cash Flow Impacts – Profits for Alternative Balancing Service Providers, £m 2020/21 Source: NERA Analysis

Scenario	DRS8	DRS9	Price Control
Conservative	-182.2	-182.2	-184.1
Medium	-562.1	-562.1	-576.9
Large-Scale	-782.9	-782.9	-802.4

Question 9: What additional reporting or monitoring in RIIO-ED2 could be valuable to assess the ongoing impact of CLASS? Please explain how Ofgem, the DNOs or any other party would be required to support the proposed measure.

DNOs should include CLASS enabled substations in their Embedded Capacity Registers (ECR), in the same way that Distributed Energy Resources are included. The ECR should show if the substation is being used to provide services to the ESO. This will provide visibility to projects connected or seeking to connect in the area as to whether CLASS services are being deployed in their area.

CLASS participation ought to be visible via the ESO's data portal. However, to ensure full visibility e.g., in case the ESO is using CLASS in a market where market participants do not have easy access to data on providers' volumes, the ESO should create a monthly report summarising its procurement volumes, market percentage share and price paid for CLASS by product and DNO provider.

DNOs should publish annual forecasts and looking back reports on CLASS deployment. The latter should break down the costs of DNOs deploying and operating CLASS and the revenue being passed to consumers, explain the how the DNO has made the choice between selling CLASS services to the ESO versus using the underlying flexibility to provide other benefits to consumers (e.g., conservative voltage reduction, management of local

constraints). The annual reporting process should include DNOs report on the measures that they have put in place to separate CLASS teams and decision making from the DSO.

Ofgem should then use the DNOs annual reports and ESO regular reporting to conduct an annual review and stakeholder consultation of the impact of CLASS on the competitive market and whether the assets underling CLASS services are being used in a way that most benefits consumers. Based on the outcome of the review and consultation Ofgem should review its decision to allow CLASS.