

30 March 2020

DSO and Whole Systems Team
Office of Gas and Electricity Markets
10 South Colonnade
Canary Wharf
London, E14 4PU
flexibility@ofgem.gov.uk

Dear DSO and Whole Systems Team,

Regulatory treatment of CLASS as a balancing service in RIIO-ED2 network price control

Drax Group plc (Drax) owns and operates a portfolio of flexible, low carbon and renewable electricity generation assets – providing enough power for the equivalent of more than 8.3 million homes across the UK. The assets include Drax Power Station, based at Selby, North Yorkshire, which is the country's single largest source of renewable electricity. Drax also owns two retail businesses, Haven Power and Opus Energy, which together supply renewable electricity and gas to over 350,000 business premises.

Drax disagrees with Ofgem's proposal to allow regulated monopolies to offer the provision of CLASS services to the ESO. In its analysis, Ofgem has placed weight behind a short-term positive outcome for consumers without appropriate consideration of the longer-term market impacts or its own wider objectives and principles. Principles that seek to promote a level playing field in competitive tendering, develop stable investment signals, avoid cross subsidy between regulated activities and ensure compliance with EU regulation and guidance.

The result is a proposal, and associated analysis, that is fundamentally flawed in three main respects:

1. Failure to properly apply the statutory duty of promoting effective competition;
2. Lack of impact assessment and adequate inquiry; and
3. Lack of adequate assessment of the system reliability impact.

We set out our key concerns in each of these categories in brief below. These statements are further substantiated in our answers to the consultation questions, which can be found in the appendix.

1. Failure to properly apply the statutory duty of promoting effective competition

- The proposal is inconsistent with Ofgem's statutory duty of promoting competition and in stark contrast with Ofgem's own previous decisions. Ofgem has not established that its 'minded-to' position complies with competition law principles and rules which form an integral part of the EU and the UK legislative framework.

- Ofgem's principal statutory duty is to protect the interests of current and future consumers. It must do so where appropriate by promoting effective competition. Accordingly, unless there is some compelling reason why to do so would be inappropriate, Ofgem's primary duty of protecting consumers *must be* met by promoting competition.
- Allowing a monopoly provider to leverage their unique position to compete with commercial providers using assets previously funded by consumers *per se* risks distorting the competitive process.
- A decision premised on the basis that "*CLASS can only be delivered by DNOs*" would be unlawful. Had Ofgem conducted a market definition exercise, it would have found that whether CLASS can be delivered only by DNOs or not is irrelevant, as the market in question is that of the 'provision of balancing services'. There is good evidence that there are already many active market players competing in this market.
- We would contend that Ofgem has applied the incorrect legal test in requiring evidence of DNO market power leading to past misconduct or that future misconduct 'will' occur. This approach is inconsistent with Ofgem's previous decisions, and ignores important and relevant evidence.
- Effective competition is not only threatened where there is evidence of past anti-competitive conduct, or evidence that there 'will' be anti-competitive conduct in future. It is well established that *even the risk of anti-competitive conduct is sufficient* to raise investment risk and deter new market entry. Indeed, this is precisely why the EU regime, and the UK legislative framework require DNO activities to be ring-fenced.
- Ofgem departs from its existing policy that conflicts of interest must be avoided, rather than mitigated. Ofgem has not provided any explanation for why it has suddenly changed course, and now considers conflicts of interest to be acceptable if they are 'mitigated'. In any case, the mitigations cited by Ofgem do not address our concerns, for example, in relation to the risk of anti-competitive conduct as a result of conflict of interest.

2. Lack of impact assessment and adequate inquiry

- Under Section 5A of the Utilities Act 2000, Ofgem has a duty to carry out an impact assessment where Ofgem considers a proposal to be 'important'. Allowing DNO's to compete in ancillary services markets is unprecedented and there can be no question that this proposal is important in light of the potential consequences for all providers of balancing services, the wider wholesale electricity market and indeed, for consumers.
- Ofgem has not carried out a robust impact assessment, so that it (and its stakeholders) could properly understand the impacts of its proposal. An impact assessment is vital, not just to fulfil its statutory duties, but also to ensure a fair procedure, with stakeholders able to properly understand how Ofgem has quantified various risks and impacts. It is alarming, in this respect, that Ofgem's 'minded-to' position provides virtually no quantification of risks and impacts.
- It is far from clear that Ofgem's 'minded-to' position on CLASS will benefit consumers, due to the presence of hidden costs, inefficiencies in the procurement of balancing services and the possibility that DNOs' may make losses on their investments in CLASS, which would be shared by consumers.

Ofgem should carefully assess the impact of these factors before reaching a final decision on the treatment of CLASS in RIIO-ED2 and indeed its ongoing utilisation under RIIO-ED1. Without further assessment, it will not be clear whether Ofgem's minded-to position is in line with its principal statutory duty of protecting the interests of current and future consumers.

- Direct impacts on other market actors have also not been analysed. When CLASS is utilised, there is a risk that suppliers over-procure (or under-procure) power relative to the amount their customers use. The resultant costs for any imbalances will be smeared across customers. We note that from 1st April 2020, balancing energy actions (e.g. Fast Reserve) from both BM providers and non-BM providers will be taken into account in settlement in accordance with Art. 49 of the Electricity Balancing Guideline (EBGL).¹ It is unclear how the ESO will ensure compliance with the EBGL requirements with respect to imbalance adjustment if CLASS is utilised.
- A broader question has yet to be addressed regarding the need for customer consent in the provision of CLASS. Any demand-side response aggregator participating in the market must gain the consent of consumers before modifying their usage. A DNO using CLASS to perform the same function has been given no such requirement, and as such we do not know what value consumers may place on voltage stability and at what rate they should be remunerated in exchange for the right to modulate their energy usage – this is reinforced by the fact that there is no definitive study available that considers the long-term impact of CLASS on customers' equipment.

3. Lack of adequate assessment of system reliability impacts

- Ofgem should have assessed in greater depth what could be the cumulative impact on security of supply, if all DNOs provided CLASS services up to the levels predicted by Baringa in its report prepared for ENWL (3GW of capability across GB).²
- When a DNO provides CLASS, it chooses to operate part of its network at one end of the allowed voltage range. In so doing, the DNO knowingly utilises flexibility that would otherwise be available to it and serve as a 'safety net', ensuring system reliability in case of network contingencies or other unforeseen events occur.
- DNOs should not be allowed to make use of that flexibility for purposes that do not relate to their core functions – it should remain available to contribute to the reliable and safe operation of the network.

Taken together, the points above (elaborated further in the appendix below) bring into question whether or not Ofgem is fulfilling its principle objective to protect the interests of current and future consumers. We therefore maintain that Ofgem should review its decisions giving effect to the regulatory treatment of CLASS for the remainder of RIIO-ED1, as well as its minded-to position with regard to RIIO-ED2, and prohibit CLASS.

We trust that you will consider the points set out above in determining your next steps on CLASS. We would be happy to continue our dialogue on this matter and discuss any aspect of this response, should that be helpful.

¹ Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

² Baringa (31 May 2016), Assessing the impact of CLASS on the GB electricity market

Yours sincerely,

Submitted via email

Marcelo Torres

Regulation Manager, Markets
Drax Group plc.

Appendix 1 – Detailed Response

Q1. Are there other options we should have considered? Please provide reasons.

Yes, although before sharing our views on other options to be considered, we present our concerns on Ofgem’s analysis to date.

Drax’s concerns in respect of Ofgem’s duty to promote effective competition

Ofgem’s principal statutory duty is to protect the interests of current and future consumers. It must do so where appropriate by promoting effective competition³. ‘Effective competition’ means competition on the merits, such that no provider can act without effective constraint from its competitors and there are no undue market distortions.

A fundamental market distortion arises where a monopoly provider in one market is able to leverage its monopoly position to influence competition in a contestable market.

i) Inconsistency with EU regime, the UK legislative framework and previous decisions

Ofgem has long recognised that this concern applies to DNOs when undertaking activities in other markets. In undertaking its role as a distribution network operator, Ofgem has repeatedly confirmed that DNOs:

“need to be entirely impartial in the way they undertake their functions. This means making sure that they do not have any conflicts of interest, including when making decisions about where and when to invest in the network, or how to operate their networks at any given moment.”⁴

Ofgem has similarly stated that: ‘network operators should act as neutral market facilitators in the provision of flexibility and that the competitive provision of flexibility can best support innovation’⁵ and that a primary aim of its relevant policy is ‘to ensure that conflicts of interest ... are avoided’.⁶ Ofgem’s previous position has been that where there are conflicts of interest, DNOs should not be able to participate in the relevant market; but if there is an inability for any third party to provide a suitable service in the market, ‘licensees may seek an exception’.⁷

In reviewing whether DNOs should be permitted to undertake energy storage, Ofgem was clear on how its statutory duty applies:

“1.7. Where competitive activities are carried out by monopoly network operators, there is potential for competition to be distorted, for new market entrants to be deterred, and for network operators’ incentives to invest efficiently in their networks to be affected.

1.8. Because network companies control the infrastructure needed to trade energy and flexibility services, they have the ability to restrict the activities of market participants by

³ EA89 s 3A(1B).

⁴https://www.ofgem.gov.uk/system/files/docs/2017/10/storage_ownership_publications_policy_consultation_final.pdf para 1.4.

⁵ <https://www.ofgem.gov.uk/ofgem-publications/145656> p 6.

⁶ https://www.ofgem.gov.uk/system/files/docs/2018/09/storage_unbundling_stat_con_cover_letter_2.pdf p 2.

⁷ *Ibid* p 6.

denying (or otherwise impeding) their network access. If a network company is also participating in the competitive market, it may have a strong incentive to use this ability to gain an unfair advantage over its rivals. The network companies' incentives to invest efficiently in the network can also be affected, if decisions are driven by shorter-term market signals, rather than longer-term investment signals. Finally, there can also be circumstances where the network company has information not available to the wider market, which might give it an undue advantage in competitive activities. It is important that these risks are managed.

1.9. New technologies and business models are creating new opportunities for competition. We must ensure that the expansion of DSO roles does not cross the boundary into activities which can efficiently and practicably be left to a competitive market."

Ofgem's position in that case was well-justified and consistent with the joint view of European energy regulators, as detailed in the European Energy Regulators' Joint White Paper on 'the Role of the DSO'⁸:

"We support the case for enhancing unbundling requirements to ensure DSOs act as neutral market facilitators. This is especially important as the energy transition creates many new products and services, and appropriate unbundling ensures that the full effect of the Clean Energy package is achieved to the benefit of consumers.

...

European Energy Regulators advocate that DSOs must act as neutral market facilitators performing regulated core activities and not activities that can efficiently and practicably be left to a competitive market. This approach is important because:

- *Competitive markets are generally better than regulated markets in delivering outcomes that provide best value for money for consumers;*
- *When DSOs get involved in competitive activities - such as storage - there is a risk that they would favour their service over potentially cheaper services (e.g. storage over demand-side response), thereby raising costs and deterring investment and innovation;*
- *DSOs could unfairly favour different types of consumers if they are direct market participants for these services; and*
- *Confidence in the neutrality of DSOs is a key element of the market."*

It also fully reflects the provisions of the EU Electricity Directive, requiring that balancing services are "provided in a fair and non-discriminatory manner and ... based on objective criteria" (2009 Directive art 37(6)(b)). The Directive clearly sets out that these are required "In order to ensure effective market access for all market players" (2009 Directive recital 35).

It is also noteworthy that the Directive specifically requires that member states ensure no distortion of competition; and that DNOs are required to comply with strict ring-fencing requirements to avoid

⁸ https://www.acer.europa.eu/Official_documents/Position_Papers/Position%20papers/WP%20ACER%2002%2017.pdf

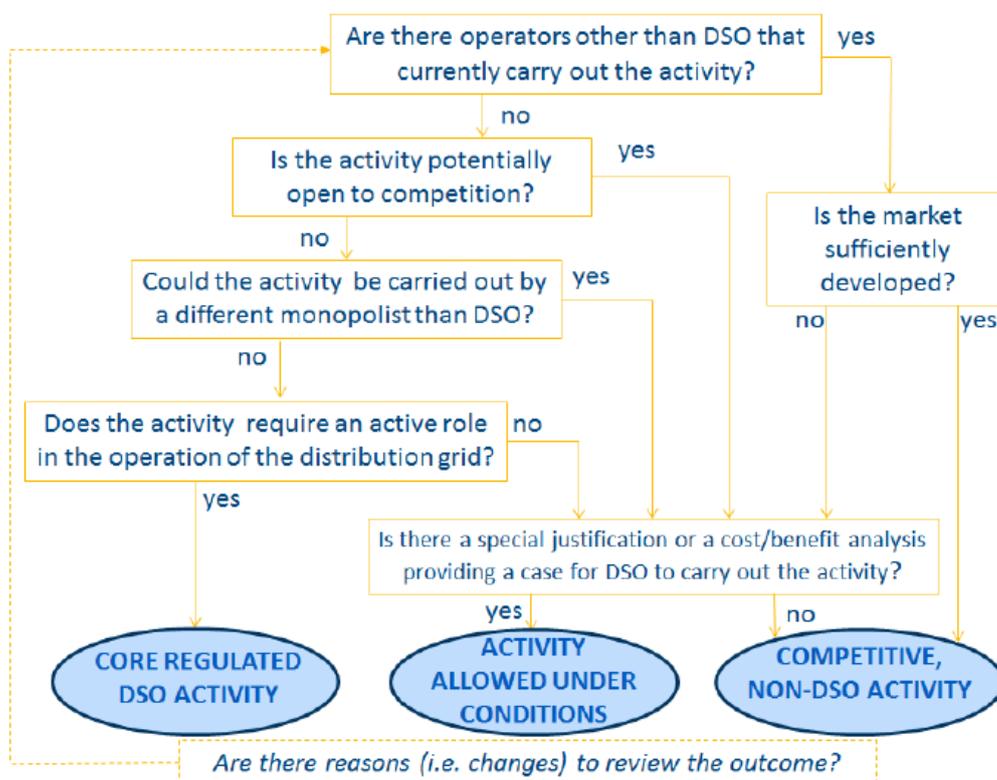
distortion of competition. Ofgem has agreed with the view that these ring-fencing requirements “need to be seen as a minimum standard for unbundling rules across Europe.”⁹

It is clear that the approach Ofgem is proposing in its ‘minded to’ decision is inconsistent with the EU regime, the UK legislative framework, its own previous decisions, and does not meet the minimum standard for unbundling rules.

ii) CLASS activities are part of a competitive market

EA89 requires Ofgem, as a first step, to assess whether CLASS activities are part of a competitive market¹⁰. This first step is also included in the ‘Decision Framework for allowing DSOs to participate in an activity’ developed by the Council of European Energy Regulators (CEER)¹¹.

Figure 1: Decision Framework for allowing DSOs to participate in an activity



Although Ofgem does accept in one part of its consultation that ‘provision of balancing services is contestable’, most parts of the consultation reveal that Ofgem has not conducted a proper market definition exercise and as such has not evidentially met one of its fundamental duties.

Instead, Ofgem takes provision of CLASS as its basis for the market and concludes in its ‘minded to’ decision that it is non-contestable since it can only be provided by DNOs:

⁹ <https://www.ofgem.gov.uk/ofgem-publications/145656> p 4.

¹⁰ EA89 s 3A(1B).

¹¹ <https://www.ceer.eu/documents/104400/-/-/ef4d6e46-e0a5-f4a4-7b74-a6d43e74dde8>

“our starting position is that DNOs should not undertake activities that can be done by third parties; individual circumstances may lead us to conclude that it is in the consumer’s interest to take an alternative stance. In this case, CLASS services can only be provided by DNOs.

...

Considerations of conflicts have formed part of our reasoning in preventing DNOs from engaging in storage or commercial aggregation. Unlike those, as a network solution CLASS can only be delivered by DNOs.”

It may or may not be technologically correct that CLASS services can only be delivered by DNOs; Ofgem has not considered the question at any level of depth. In any event, even if that were true it would be meaningless in legal terms, because Ofgem makes no findings about the definition of the market. It provides no lawful basis for any decision about the interests of consumers.

Had Ofgem conducted a market definition exercise, it would have found that whether CLASS can be delivered only by DNOs or not is irrelevant. In its own consultation Ofgem recognises that CLASS services compete with other balancing services, which are procured by the ESO. Although the services procured by the ESO fall into various categories (and so not all balancing services are fully interchangeable), it appears that CLASS services currently participate in the ESO procurement process as both Firm Frequency Response (FFR) and Fast Reserve (FR) services. While Ofgem would need to undertake a full market definition exercise¹², there is good evidence that there are many active market players already competing for the provision of these services.

Indeed, in the consultation document, Ofgem acknowledges that “[the] balancing service provision is not a monopoly service, and there is no evidence that competition is ineffective”. We agree with this finding; the balancing services market in Great Britain is one of the most developed and competitive globally. Over the last few years, participation in the market for the provision of frequency response and reserve has grown considerably. Prices have been falling in these markets as a direct result of competition and cost savings achieved through innovation. From 2015 to 2019, availability prices for FR fell by 81%. A similar trend has been observed in FFR, where prices have decreased by 61%, and in the provision of Short Term Operating Reserve, STOR (Flexible), where prices have fallen by 20%¹³.

Accordingly, unless there is some compelling reason why to do so would be inappropriate, Ofgem’s primary duty of protecting consumers *must be* met by promoting competition in that market. Its duty is not to ensure that every service which is technologically possible is allowed to be provided, regardless of the impact on competition. In allowing its ‘minded to’ decision to be driven by a

¹² Alternative market definitions that Ofgem should have considered include the ‘provision of aggregation services’ or the ‘provision of demand-side response services’. There is strong competition in both of these markets in GB, so our conclusion that DNOs should not be allowed to participate in them remains the same. We note that ENWL itself has presented CLASS as ‘demand-side response’ in a public conference in 2019 - LCNI Conference 2019 - Smart Street Project presentation, slide 2 <https://www.enwl.co.uk/globalassets/innovation/innovation-event-documents/lcni-presentations-2019/smart-street---the-road-to-irm.pdf>

¹³ The contribution of CLASS to the fall in prices is limited by the volume of CLASS accepted by the ESO (e.g. less than 2% of total FFR volume accepted and approximately 21% of all accepted FR capacity).

misapprehension that CLASS services must be provided, and without properly defining the market or impact on market dynamics, Ofgem has erred in law.

As illustrated in the CEER diagram above, the fact that there are numerous actors already competing for the provision of balancing services in GB should have been an adequate reason for Ofgem to conclude that DNOs should not be allowed to provide CLASS.

In our responses to the questions below we lay out further concerns that Ofgem should have considered more carefully before reaching its minded-to decision, including:

- The risk to competition is significant;
- The reference to previous and future evidence of distortions is legally incorrect, inconsistent with Ofgem's previous decisions, and ignorant of important and relevant evidence;
- The existing risk 'mitigations' cited by Ofgem in the consultation are neither adequate nor provide any proper or lawful basis for negating the permanent, structural advantage that a DNO would have in balancing markets;
- Ofgem has not carried out a robust impact assessment. An impact assessment is vital, not just for Ofgem to fulfil its statutory duties, but also to ensure a fair procedure, with stakeholders able to understand how Ofgem has quantified various risks and impacts;
- Ofgem's minded-to position on CLASS may not benefit consumers due to the presence of hidden costs, due to inefficiencies in the procurement of balancing services and due to the possibility that DNOs' may make losses on their investments in CLASS, which would be shared with consumers.

For the reasons explained above, we believe that Ofgem should review its decisions giving effect to the regulatory treatment of CLASS for the remainder of RIIO-ED1, as well as its minded-to position with regard to RIIO-ED2, and prohibit CLASS.

Other options that should have been considered

If as part of a future consultation - following a comprehensive impact assessment - Ofgem demonstrates that the provision of CLASS by DNOs is lawful and in the interests of both current and future consumers, then it should consider including the use of CLASS under the same principle as OC6 'Demand Control'¹⁴ – i.e. use only in emergency circumstances, as a last resort option, to ensure system security if no other market-based solutions were available to the ESO. This could be set out as Option 2B, as it would be remunerated through the price control. We would envisage further conditions defining:

- the total amount of CLASS that could be procured by the ESO; and
- clear governance arrangements (e.g. cross-subsidisation, competitive advantage through access to data, conflict of interest, discrimination, etc.) through (e.g. legal status, ownership, management, access to data, etc.) ensuring that CLASS-related activities are ring-fenced from the rest of DNO functions.

¹⁴ <https://www.nationalgrideso.com/document/33866/download>

Q2. Do you agree that market-based mechanisms can provide the most efficient incentive for CLASS participation in balancing services?

Markets rely on effective competition to deliver good outcomes for consumers. Allowing a monopoly provider to leverage their unique position to compete with commercial providers using assets previously funded by consumers *per se* risks distorting the competitive process. This, together with the existence of risks of discrimination and conflict of interest, should have been adequate for Ofgem to determine that regulated network monopolies should not be allowed to participate in the balancing services markets.

Extraordinarily, in its minded-to position Ofgem departs from its existing policy and argues that CLASS will in fact benefit consumers because:

- If CLASS is lower cost than other balancing services, then the ESO will procure CLASS as a balancing service. Consumers will benefit from the lower costs of balancing services through a decrease in the Balancing Services Use of System (BSUoS) charges; and
- Consumers will benefit from sharing any profit that DNOs may make in providing CLASS to the ESO.

However, in forming this position Ofgem has not conducted any quantitative analysis or provided an Impact Assessment, which are critical to assess the expected costs and benefits to consumers from its proposals. In the absence of detailed analysis showing that CLASS is clearly low cost, Ofgem's assertion that its minded-to position will lead to the development of CLASS if, and only if, it is an efficient low-cost service, places an extraordinary burden on the regulatory framework to equalise incentives between commercial and regulated market participants.

Lack of impact assessment and adequate inquiry

Under Section 5A of the Utilities Act 2000, Ofgem has a duty to carry out an impact assessment where Ofgem considers a proposal to be 'important'. There can be no question that this proposal is indeed important, considering the potential consequences for all providers of balancing services and, indeed, for consumers.

Ofgem has not carried out a proper impact assessment, so that it (and its stakeholders) can fully understand the impacts of its proposal. An impact assessment is vital, not just to fulfil its statutory duties but also to ensure a fair procedure, with stakeholders able to understand how Ofgem has quantified various risks and impacts. It is highly concerning that Ofgem's consultation provides virtually no quantification of risks and impacts. This is despite – as noted above – serious direct and indirect impacts on consumers and competition.

The consultation appears to dismiss concerns by simply referencing general obligations on DNOs (e.g. not to discriminate) and the ESO (e.g. to have regard to development of the balancing market), rather than developing a rigorous evidence base on which to make an informed decision. In addition, there appears to be a number of potential hidden costs associated with CLASS that have not been adequately considered by Ofgem. We discuss these hidden costs further below.

In light of the concerns we have raised above, we challenge the lawfulness of Ofgem proceeding with its 'minded to' proposal on the basis of incomplete evidence and a reliance on qualitative information. The data that enables a thorough analysis on the potential negative effects on customer equipment cannot be provided by anyone except the DNOs themselves (and in this case, likely only ENWL). Moreover, the DNOs

have no incentive to provide such information nor to commission research that may undermine the case for CLASS services.

In this situation of significant asymmetry of information, it is incumbent on Ofgem to provide a full and comprehensive analysis of risks and benefits – including making all reasonable inquiries and commissioning its own research if necessary. This is essential and the only way that other stakeholders in the industry will have a fair opportunity to understand and critique the basis of the decision Ofgem proposes to take. The consultation fails to fulfil this fundamental requirement of procedural fairness, and therefore cannot serve as a lawful basis for the decision Ofgem proposes to make.

Economic considerations that have not been factored into Ofgem’s ‘minded to’ position.

Ofgem’s minded-to position on CLASS may not benefit consumers due to the presence of hidden costs, due to inefficiencies in the procurement of balancing services and due to the possibility that DNOs’ may make losses on their investments in CLASS, which would be shared by consumers.

i) There may be “hidden costs” of the DNOs’ provision of CLASS: There may be hidden costs associated with CLASS, such as cross-subsidies from consumers, conflicts of interest and negative externalities on the development of competing technologies. As these hidden costs would not be reflected in DNOs’ bids in the ESO’s tenders for balancing services, the ESO may procure more CLASS than would be economically efficient. If these hidden costs are very large compared to the private costs of CLASS provision, and the differences between the marginal costs of CLASS and other balancing technologies are relatively small, it is possible that any participation of CLASS in balancing services is economically inefficient and harmful to consumers.

Ofgem has not to date conducted any quantitative analysis of the magnitude of hidden costs identified. It has not even conducted any qualitative assessment of many of them. Hidden costs may include:

1. Cross-subsidies from consumers to the DNOs through price controls, because network costs and CLASS-specific costs may be difficult to separate. For instance, we understand that CLASS may reduce the useful lives of some network assets, increasing the cost of maintenance and replacement costs of these assets. These additional costs will most likely be funded by consumers via increased Distribution Use of System (DUoS) charges, and will not be borne by the DNOs;
2. CLASS may shorten the useful lives of certain machines and household appliances. ENWL conducted a survey to determine whether customers noticed any impact from the voltage changes that CLASS produced. This is hardly a definitive study into the long-term impact of CLASS on customers’ equipment. If there is equipment damage from CLASS, it is likely to be observed in the long term. In the meantime, it would be wrong to assert that there is none¹⁵. In the case there are any associated additional costs, they will be borne by consumers and will not be reflected in DNOs’ bids into the ESO’s tenders for balancing services;
3. When CLASS is utilised, there is a risk that suppliers over-procure (or under-procure) power relative to the amount their customers use. There is no obligation or incentive on ENWL to reach an

¹⁵ Certain Industrial and Commercial (I&C) customers deploy their own voltage controls at point of use, to protect their instruments from damage due to DNO balancing actions. No domestic consumer can be expected to invest in the same technology, but the fact that I&C customers already deploy the technology means that the impact on all machines and appliances should be assessed in greater depth and over longer time horizons.

agreement with suppliers ensuring that they are kept whole from any CLASS actions. This increases the riskiness of supply businesses and *a priori* their cost of capital. Additionally, we expect resultant costs for any imbalances caused by CLASS actions to be smeared across the customer base. We note that from 1st April 2020, balancing energy actions (e.g. Fast Reserve) from both BM providers and non-BM providers will be taken into account in settlement in accordance with Art.49 Electricity Balancing Guideline (EBGL).¹⁶ It is unclear how the ESO will ensure compliance with the EBGL requirements with respect to imbalance adjustment.

4. If DNOs are allowed to offer CLASS to the ESO, they will be competing in the balancing services market against market participants that they may serve as the monopoly network service provider. DNOs may therefore have incentives to discriminate against their competitors in their roles as DNOs or in their procurement of flexibility services for their own network. Such discriminatory behaviour would impose costs on consumers; and
5. Ofgem argues that consumers do not value voltage stability because a study has shown CLASS to be imperceptible to consumers. Consumers may nonetheless place a value on voltage stability, as they do on leakage in the water sector (another imperceptible feature of a monopoly business).

Some of these hidden costs are individually small and the impacts are distributed across the generality of consumers. However, the likely benefits of CLASS per consumer are also likely to be small. Accordingly, it is unclear without further analysis whether these costs exceed the benefits of CLASS.

- ii) **The procurement of balancing services may not be efficient:** Inefficiencies in the ESO's procurement of balancing services may also lead to the procurement of CLASS even when it is not economically efficient to do so. The cheapest solution today, for a one-week or a one-month contract, may not be the cheapest solution over the lifetime of a set of assets. Hence, there is potential trade-off between the procurement of the cheapest balancing service today and the minimisation of long-run balancing costs. Due to the pass-through of balancing costs to consumers, the incentives it faces¹⁷ and imperfect information available to it, the ESO may procure CLASS even when there are alternative technologies that are cheaper over longer time horizons. This particularly brings into question whether Ofgem is fulfilling its primary objective to protect future consumers as well as today's.
- iii) **DNOs' investment in CLASS may not be profitable:** DNOs may make losses on their investment in CLASS. As DNOs' share their net revenues from the provision of CLASS with their customers, DUoS charges would go up if the DNOs' net revenues were negative. In its consultation on CLASS, Ofgem explains that "*Net revenue is the gross revenue earned by participating in balancing services (i.e. what the ESO have paid the DNO) that year, less CLASS specific costs incurred or allocated that year, for example bid team costs and any assets paid for*".¹⁸ Ofgem's explanation suggests that all costs associated with CLASS, including the costs of any assets paid for (i.e. capex), would be subtracted from revenues from CLASS to estimate net revenues. If capex as well as opex is subtracted from revenues to estimate net revenues, then there

¹⁶ Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing

¹⁷ Ofgem's 'ESO Roles and Principles Guidance' states that the ESO "*must balance short-term reductions in balancing costs against the longer-term development of balancing services markets*".

¹⁸ Ofgem (10 February 2020), Consultation: Regulatory treatment of CLASS as a balancing service in RIIO-ED2 network price control, pp. 17-18.

is a higher risk that net revenues may well be negative in some years, and that DUOS charges may increase overall for consumers.

Specifically, if Ofgem's statement is correct, then consumers may incur a large up-front cost when the DNO makes its capex investment, by sharing the large negative net revenues made by the DNO, e.g. in the year that it invests in developing its CLASS capabilities. The DNO makes the large initial capital investment based on its judgement that over the lifetime of the project, it will be able to recover its costs and make a reasonable return. However, because this investment is very capex-intensive, any change in the balancing market, such as the emergence of an innovative low-cost technology, carries high risk that it will not be able to recover its initial investment costs. There is evidence of rapid changes in the balancing services market in recent years. For instance, the share of demand-side flexibility providers bidding in the FFR market increased from 44 per cent in 2017 to 85 per cent in 2019.¹⁹ Rapid changes in the market and the potential emergence of new technologies carry risks for consumers as well as DNOs, due to the capex-intensive nature of CLASS investments and the sharing of net revenues between DNOs and consumers under Ofgem's proposals.

We contend that Ofgem should carefully assess these areas before reaching a final decision on the treatment of CLASS in RIIO-ED2. Without further assessment, it will not be clear whether Ofgem's minded-to position is in line with its principal statutory duty of protecting the interests of current and future consumers.

Q3. What is your view on DNOs' sharing profits with consumers, even if this means consumers are also exposed to DNOs' losses (including how this might affect DNOs' competitive behaviour noting this is different to other providers of balancing services)?

Ofgem's proposal to categorise the service as DRS8 implies that consumers will effectively cover approximately 50% of any losses. ENWL's own commissioned report²⁰ concludes that, for DNOs seeking to roll out CLASS, there is a serious commercial risk:

"The key risk to consider is around ensuring payback of investment costs, especially in the context of the following market risks:

- *The potential for CLASS being classified as a static provider (reduces the range of pricing options available to CLASS while retaining a competitive edge);*
- *New market entry from other providers of CLASS (which could lower market prices);*
- *New market entry from other low cost providers (DSR, and potentially some storage business models) (which again could lower market prices); and*
- *The risk of re-baselining of these revenues as part of the underlying regulatory regime (say in RIIO ED2)."*

In the consultation, Ofgem appears to 'write off' the prospect of losses, by assuming that investment in CLASS will self-evidently be efficient and noting that "DNOs' share of that risk should drive good commercial discipline". All investments involve risk. DNOs' investments in CLASS are, in fact, likely to be *less disciplined*

¹⁹ Ofgem (10 February 2020), Consultation: Regulatory treatment of CLASS as a balancing service in RIIO-ED2 network price control, p. 38.

²⁰ Baringa (31 May 2016), Assessing the impact of CLASS on the GB electricity market, p.63

given that – unlike for other providers of balancing services – DNOs will not have to face the full amount of their loss.

It is entirely inappropriate for consumers to bear this risk and potentially face losses. Consumers do not bear the risks for any non-DNO investments in balancing services. This also highlights the level of competitive distortion. It is unclear how Ofgem could rationally and lawfully ignore these serious risks for consumers.

Should Ofgem maintain its position and include CLASS in DRS8, then it should at least ensure that any negative net revenues do not get passed to consumers.

Q4. How might limits on charges to the ESO in DRS9 affect investment and utilisation signals for CLASS?

We do not consider that it is within Ofgem’s duties to seek to incentivise regulated monopolies to perform activities that are outside those set out in their licences - especially when these activities are already competitively delivered by other providers. Therefore, we do not consider Ofgem should be concerned about maintaining strong investment and utilisation signals for CLASS.

Q5. Do you agree that requiring CLASS in the price control would not promote efficient investment signals in CLASS and could distort competitive outcomes?

For the reasons explained above, we do not believe that regulated network monopolies should be allowed to participate in the competitive balancing services markets. We maintain this position regardless of the mechanism under which these services may be provided.

None of approaches presented, including Option 2 (Price Control Remuneration), addresses sufficiently our concerns, for example, with respect to conflict of interest or competition distortion.

We note that in the consultation Ofgem states that it will ensure allowed revenues are not used to recover costs of CLASS activities. This means that it expects DNOs to offer this service to the ESO only where there is an investment case (net revenue) for doing so. Ofgem also provides some detail about the cost categories that will be attributable to CLASS and won’t be covered in the price control:

“DRSs are not covered by the price control settlement. This means costs that are solely attributable to providing CLASS as a balancing service would be included within the scope of the DRS, and would not be included in the allowed revenues which are recovered from consumers via distribution use of system (DUoS) charges. These attributable costs would include new assets, additional operating costs, associated additional maintenance costs, and any other costs that would not otherwise be incurred. DNOs seek to be remunerated for these costs instead through their charges to the customer; in the case of CLASS, that customer is the ESO.”

However, we argue that CLASS is partly covered by the price control. CLASS makes use of network assets funded by consumers; it has benefitted from consumer-funded learning via the Low Carbon Network Fund (LCNF), and DNOs share any net revenues (i.e. profits or losses) from the provision of CLASS with consumers. Further, as shown in the WP3 Final Report²¹, CLASS operation could create additional wear-and-tear on the tap-changers where load current increases significantly. This means that DNOs could incur higher costs in maintaining those assets and may need to replace them more frequently. It is unclear how Ofgem will be

²¹ <https://www.enwl.co.uk/globalassets/innovation/class/class-documents/asset-health-final-report.pdf>

able to distinguish that these additional costs are related to CLASS, and, therefore, ensure that they are not recovered through allowed revenues. We note that this challenge is acknowledged by ENWL and included in Ofgem's own DSR8 Direction²²:

“(d) During the introduction of these services, the costs attributable to these services are expected to be clearly distinguishable from other network operation costs, but subsequent costs associated with the use of network equipment may be less easy to distinguish from other network operation costs.”

Therefore, there is a risk that these costs will be cross-subsidised (i.e. funded via the allowed price-control revenues), which would further distort competition. This reinforces our conclusion that CLASS should be prohibited.

Q6. Do you have evidence CLASS could affect the likelihood of system reliability issues?

Ensuring that the distribution network is operated safely and reliably is a core DNO task. To achieve this, DNOs need to make sure that the voltage level on the distribution network remains within a predetermined range. When a DNO provides CLASS, it chooses to operate part of its network at one end of the allowed voltage range. In so doing, the DNO knowingly utilises flexibility that would otherwise be available to it and serves as a 'safety net' to ensure system reliability in case of network contingencies or other unforeseen events. DNOs should not be allowed to make use of that flexibility for commercial purposes that do not relate to their core functions – it should remain available to contribute to the reliable and safe operation of the network.

Moreover, we expect that market confidence will be severely eroded if there's a perception that participation of regulated network monopolies in the competitive ancillary services markets will expand. This may lead to a decrease in investment in those technologies that can provide a broad range of ancillary services needed by the Electricity System Operator to operate the system reliably, not necessarily limited to the services that CLASS can provide.

Q7. Do you have evidence competition is currently being distorted or impeded by the participation of CLASS? Do you agree with our assessment that it is unlikely DNOs have or would have market power in future, and the reasons we have provided in Appendix 2?

The vast majority of the industry has raised serious concerns about the risk to competition that CLASS creates²³. These concerns involve risks around cross-subsidisation, competitive advantages of network monopolies, as well as concerns about conflict of interest and potential discriminatory practices. Ofgem dismisses these concerns in the consultation, noting that:

“We have no evidence that ENWL is leveraging (or has leveraged) its monopoly position as network operator to improve its relative commercial performance’

...

²² https://www.ofgem.gov.uk/system/files/docs/2016/04/dno_voltage_control_drs8_direction.pdf

²³ See report by Energy UK, ADE, BEAMA with support and input from the REA and RenewableUK ' [Delivering on the potential for Flexibility: a smart flexible energy system in the transition to a net zero economy](#)'. Page 7, Recommendations: “To restore market confidence, regulated monopolies, such as distribution network operators, should be barred from participating in ancillary service markets, as they are from energy markets”.

‘Our analysis and engagement has not provided any evidence to suggest that distortions will occur if other DNOs are to invest in CLASS’;²⁴

...

‘We have existing protections in place to mitigate these risks’.

We address these points in turn below:

i) The risk of anti-competitive conduct is sufficient to raise investment risk and deter new market entry

As explained above, allowing monopoly networks to leverage their unique position to compete in ancillary services using network assets funded by consumers does not ensure a level playing field of undistorted competition. It gives CLASS services unfair advantages over other balancing services providers – unfairly undermining the business case, and the expectations of a ‘level playing field’, on which existing service providers have invested.

Effective competition is not only threatened where there is evidence of past anti-competitive conduct, or evidence that there ‘will’ be anti-competitive conduct in future. It is well established that even the risk of anti-competitive conduct is sufficient to raise investment risk and deter new market entry. Ofgem has therefore applied the wrong legal test, in purporting to require evidence of past misconduct or that future misconduct ‘will’ occur.

ii) Inconsistency with legislative framework and previous decisions

The Electricity Directive goes to great lengths to isolate monopoly DNO activities from other elements for the value chain. This is a clear pointer to the risks of DNOs distorting competition and one which is seemingly ignored by Ofgem.

Ofgem itself has previously adopted a more consistent position when it amended the DNO licence conditions in 2018 to prohibit DNOs from operating storage facilities.²⁵ Ofgem correctly identified that “the operation of storage assets by network licensees could present risks to the competitive deployment of storage”.²⁶ The concerns raised by Ofgem include:

“We believe that there is a risk that markets for flexibility at distribution level could be stifled if monopoly entities are able to participate as they have competitive advantages as compared to third-party storage providers. For example, because network companies control the network infrastructure needed to trade energy and flexibility services, they have the ability to restrict the activities of market participants by denying (or otherwise impeding) their network access.

If a network company is also participating in the competitive market, it may have a strong incentive to use this ability to gain an unfair advantage over its rivals. The network companies’ incentives to invest efficiently in the network can also be affected, if decisions are driven by shorter-term market signals, rather than longer-term investment signals.

Finally, there can also be circumstances where the network company has information not available to the wider market, which might give it an undue advantage in competitive activities.”

²⁴ Para 3.9.

²⁵ <https://www.ofgem.gov.uk/ofgem-publications/145656>

²⁶ Ibid p 2.

In that case, Ofgem correctly identified that the ability and incentive to distort the market or gain an unfair advantage are sufficient. We have been unable to identify what is the differentiating factor that warrants CLASS different treatment to energy storage. We can only presume that it is Ofgem's conclusion that *"only DNOs can provide CLASS"*, which, as discussed in our response to Q1, is irrelevant.

Ofgem has also reached this same decision in other contexts. For example, Ofgem required another DNO, Western Power Distribution (WPD), to shut down part of its Project Entire solution, which allowed for commercially aggregating connected customer demand. It is noted in the closedown report for Project Entire:

*"Ofgem highlighted that they did not see models in which the DNO operates as a commercial operator in the long term interests of customers. As such these elements of the project were removed to ensure that the trial continued to deliver relevant and valuable learning."*²⁷

There is no evidence that Ofgem reached this decision only after determining that misconduct had occurred, or that distortion could occur, in future. We see no reason why CLASS should be treated differently, given that CLASS is effectively a technology that enables commercially aggregating (and modifying) connected customer demand²⁸.

iii) Relevant evidence

Moreover, as detailed in our response to Q11, Ofgem has ignored evidence provided by the European Commission (COM(2006) 851 final): *Inquiry pursuant to Article 17 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report)*²⁹ and its Technical Annex SEC(2006) 1724³⁰ which shows that, even where Member States have fully adopted and implemented the unbundling provisions required under the Electricity and Gas Directives, systemic conflict of interest has resulted in discrimination:

"The Sector Inquiry confirms the finding that it is essential to resolve the systemic conflict of interest inherent in the vertical integration of supply and network activities, which has resulted in a lack of investment in infrastructure and in discrimination.

...

Balancing mechanisms are not only a technical issue to ensure system stability, but have also important commercial implications and in turn implications for effective competition.

...

The way in which this "market" functions is likely to have knock-on effects on the entire wholesale market.

...

It is obvious that balancing mechanisms should be as efficient as possible and contribute to competition in related electricity markets (e.g. supply)."

²⁷ Entire Closedown Report.

²⁸ We note that ENWL itself presented CLASS as "demand-side response" in an open conference in 2019. LCNI Conference 2019 - Smart Street Project presentation, slide 2, <https://www.enwl.co.uk/globalassets/innovation/innovation-event-documents/lcni-presentations-2019/smart-street--the-road-to-irm.pdf>

²⁹ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0851:FIN:EN:PDF>

³⁰ <https://ec.europa.eu/transparency/regdoc/?fuseaction=list&cotelid=2&year=2006&number=1724&version=ALL&language=en>

Finally, in respect to the likelihood of DNOs to have market power in the future, we see no reason why Ofgem does not perceive this as a credible risk. ENWL's own commissioned report concluded that CLASS potential could be up to 3GW of capability across GB. In this scenario, the collective capacity would fulfil the ESO's current requirement for Firm Frequency Response and Fast Reserve. Given the advantages CLASS involves (e.g. use of existing assets already paid by consumers, hidden costs, etc.), we see no reason why volumes couldn't grow materially. It would be reasonable to assume that ENWL and other DNOs are awaiting Ofgem's decision confirming the regulatory treatment of CLASS before rolling it out at scale.

Q8. What information could the DNO have privileged access to that that could offer it an unfair advantage in balancing services provision? How might this change in future if the DNO and ESO increasingly coordinate?

The DNO has exclusive or privileged access to information about electricity networks that would give it an unfair advantage in balancing services provision, including forecasting and planning data, network maintenance data, as well as real-time visibility of network conditions (e.g. granular data on network constraints). DNOs could also have access to commercially sensitive information about the performance, the properties and the capabilities of all the assets connected to their respective networks. As DNOs transition to provide more dynamic system operation (i.e. DSOs), their access to commercially sensitive information pertaining to their potential competitors will only increase.

Q9. What measures would you consider effective and proportionate to ensure that privileged information the DNO has access to is not used inappropriately to benefit the commercial performance of CLASS?

Should Ofgem decide to maintain its position on the regulatory treatment of CLASS, we expect it to carry out a public consultation setting out its proposals for regulatory conditions to apply in the provision of CLASS by DNOs to mitigate the profound risk to competition that has been raised by the industry.

As part of these conditions, we would envisage Ofgem to propose clear governance arrangements ensuring that CLASS-activities are fully ring-fenced from the rest of a DNO's functions. These arrangements should safeguard that the separate entity involved in the provision of CLASS has no access to privileged information.

Q10. In what other ways do you think DNOs could take advantage of their DNO role in the context of providing balancing services with CLASS?

Ofgem's Position paper "*Distribution System Operation: our approach and regulatory priorities*"³¹ published in 2019 provides a comprehensive analysis of how DNOs could take advantage of their role. We agree with that analysis and have nothing further to add, other than a recommendation that Ofgem fully consider that analysis in revisiting its minded-to position.

Q11. How far 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?

³¹https://www.ofgem.gov.uk/system/files/docs/2019/08/position_paper_on_distribution_system_operation.pdf

Ofgem claims in the consultation that there are sufficient protections to mitigate against risk, citing:

- low barriers to entry and likely innovation;
- the fact that the ESO must take the development of the market into account in its procurement;³² and
- that there are regulatory obligations requiring the DNOs not to discriminate.

None of this provides any proper or lawful basis for rejecting the permanent, structural advantage that a DNO would have in balancing markets. For example, low barriers and innovation are only relevant to the extent that they operate as an *effective competitive constraint*. Ofgem has not addressed this issue at all. The potential addition of new players or new solutions is irrelevant unless Ofgem can show that they would overcome the permanent structural advantages that a DNO would have in the market, and drive prices for CLASS services to the level that could be expected in a competitive market.

It is equally insufficient that DNOs are required not to discriminate or cross-subsidise their activities or that the ESO has 'soft' obligations to take market development into account in its procurement decisions. Regulators in other sectors have repeatedly struggled with the problems inherent with regulated providers also providing non-regulated activities, despite having general non-discrimination obligations. It is well acknowledged that such obligations leave significant opportunity for 'regulatory gaming', including for example through self-serving cost allocation methodologies and through investment choices that are informed by the desire to earn commercial returns in the contestable market. For example, other economic regulators, such as Ofcom, have taken many years to identify even 'plainly inappropriate' methodologies – for example, Openreach and BT adopted such methodologies for many years before Ofcom was able to identify the problems.³³

It is widely accepted that generalised non-discrimination obligations are not sufficient to prevent market distortion, in contexts where a market player has a systemic advantage. Indeed, this is precisely why the EU regime, and the UK legislative framework, require DNO activities to be ring-fenced.

Moreover, this is an extraordinary departure from Ofgem's existing policy that conflicts of interest must be avoided, rather than mitigated. Ofgem has not provided any explanation for why it has suddenly changed course, and now considers conflicts of interest to be acceptable if they are 'mitigated'.

Ultimately, the 'mitigations' that Ofgem refer to largely exist already – e.g. in relation to electricity storage. Ofgem has provided no proper explanation of why these 'mitigations' are stronger or more effective in this case, compared to earlier cases where Ofgem has not allowed DNOs to participate.

Q12. What additional measures would be effective and proportionate to address actual or perceived risks of DNOs taking advantage of their DNO role?

If as part of a future consultation - following a comprehensive impact assessment - Ofgem demonstrates that the provision of CLASS by DNOs is lawful and in the interests of consumers, then it should consider including

³² Para 3.9.

³³https://www.ofcom.org.uk/__data/assets/pdf_file/0025/83482/ofcom_bt_cost_attribution_review_final_report.pdf.

the use of CLASS under the same principle as OC6 ‘Demand Control’³⁴ (i.e. use only in emergency circumstances, as a last resort option to ensure system security if no other market-based solutions were available to the ESO). This could be set out as Option 2B, as it would be remunerated through the price control. We would envisage further conditions defining:

- the total amount of CLASS that could be procured by the ESO; and
- clear governance arrangements to mitigate risks (e.g. cross-subsidisation, competitive advantage through access to data, conflict of interest, discrimination, etc.) through ensuring that CLASS-related activities are ring-fenced from the rest of DNO functions (e.g. legal status, ownership, management, access to data etc.).

Should Ofgem decide to maintain its position and include CLASS in DSR8, then we would still expect it to carry out a public consultation setting out its proposals for regulatory conditions to mitigate the competition risks that have been raised by the industry. Conditions could define:

- the total amount of CLASS that could be procured by the ESO (e.g. no more than 10% of total volume procured);
- the type(s) of services that could be provided (e.g. frequency response);
- the circumstances under which CLASS could be used (i.e. only in emergency situations, as a last resort option to ensure system security, if no other market-based solutions were available to the ESO); failing which, the specific competitive markets in which CLASS could participate (e.g. firm frequency response tenders);
- the participation of the same CLASS volume in more than one market for delivery in the same period (i.e. revenue stacking); and
- clear governance arrangements to mitigate risks (e.g. cross-subsidisation, competitive advantage through access to data, conflict of interest, discrimination etc.) through clear governance arrangements (e.g. legal status, ownership, management, access to data etc.) ensuring that CLASS-related activities are ring-fenced from the rest of DNO functions.

Q13. Are there other specific effects to competition that are relevant to our decision? What effects would these have on consumers?

We note that even if DNOs do not participate in discriminatory behaviour as a result of CLASS, e.g. due to their licence requirements and the additional steps that Ofgem and BEIS will take to mitigate the impact of conflicts, the presence of conflict of interest may in itself increase costs for market participants.

For instance, the presence of conflicts of interest may reduce investors’ confidence in the regulatory environment and increase the perceived riskiness of investments in flexibility services. This would increase the return required by these investors, and therefore the costs of their investments. These additional costs may be passed through to consumers, or more likely, those investments will simply not be made. In turn, this would jeopardize security of supply and hinder the energy transition.

Research from Imperial College London and the Carbon Trust used to inform BEIS and Ofgem’s Smart Systems and Flexibility Plan indicated that a failure to establish truly competitive markets in the early 2020s would

³⁴ <https://www.nationalgrideso.com/document/33866/download>

result in a 'slow start' scenario at a cost to consumers of ~ £9bn by 2030.³⁵ Ofgem should carefully assess any wider market impacts before reaching a final decision on the treatment of CLASS in RII0-ED2.

³⁵https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/568982/An_analysis_of_electricity_flexibility_for_Great_Britain.pdf