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

RenewableUK response
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RenewableUK's members are building our future energy system, powered by clean electricity. We bring them together to deliver that future faster; a future which is better for industry, billpayers, and the environment. We support over 400 member companies to ensure increasing amounts of renewable electricity are deployed across the UK and to access export markets all over the world. Our members are business leaders, technology innovators, and expert thinkers from right across industry.

We welcome the opportunity to respond to the consultation on regulatory treatment of Customer Load Active System Service (CLASS) as a balancing service in RIIO-ED2 network price control.

Network innovation will play an important role in efforts to achieve net zero by 2050. While we agree with the objectives set out in the minded-to consultation on supporting market-based competition and network innovation, we are concerned about the future implications of this decision. The continued provision of CLASS as a balancing service could lead to increases in risk to wider system players participating in demand-side management and ultimately increase cost to end-consumers. Given the lack of appropriate provisions for DNOs around consumer consent and methodology, we encourage Ofgem to consider this interaction further and provide clarity to the industry through the publication of a detailed impact assessment.

It will be helpful for Ofgem to set out clear definition around contestable services and DNO participation which is in line with the ENA Open Networks Project work on Flexibility Market Principles. Following on from the recent decisions regarding storage operation and commercial aggregation, an overarching policy framework can build on this definition. As part of this framework we would like to see Ofgem set out clear boundaries around activities DNOs can carry out as well as develop appropriate safeguards to ensure access to privileged information such as operational data is not allowed.

This response has been compiled by RenewableUK with input from our membership.

Consultation questions

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

We support the work carried out so far by Ofgem and the ENA to ensure that DNOs are able to procure flexibility markets neutrally. We would encourage Ofgem to consider the recent work by the

ENA Open Networks project in this area and particularly the Flexibility Market Principles paper[1]. Particularly, the principle of neutral market facilitation prescribes that '*Where Flexibility Services are open to competition, System Operators should not be allowed to be active in that area. This is due to System Operators having part of their costs covered by regulated tariffs, subsequently carrying a lower risk profile supported by their core monopoly activity and placing the System Operator in an advantageous position over other Market Participants*.'

The CLASS minded-to decision does not align with this ambition and is likely to give rise to a number of issues and unintended consequences (discussed further in our answer to Q7 and Q8). Should Ofgem proceed with its preferred direction of travel, we would advise a further option for reform is explored, where operation of network assets allowed to provide balancing services is open to competition, so that third parties are able to bid for the provision of CLASS.

We disagree with the assertion in the consultation that '*Only DNOs can provide CLASS*'. We further question whether TOs in their capacity as network operators are also able to offer this service.

While it is true that CLASS involves the operation of network-owned infrastructure, we do not see why the operation of CLASS communication infrastructure should be limited to the DNO responsible for building it. Third parties that are signatories to the Grid Code could be well-placed to compete to provide the service, with any mis-compliance penalised. This option means enabling more providers to engage in markets and using competition to apply innovative business models. This approach will also align with the principle obligations which restrict DNOs to operate storage facilities or act as commercial aggregators of flexibility.

Affiliates of the local DNO should not be allowed to bid in in order to remove the potential of conflicts of interest or information asymmetries. We see merit in further consideration of such option where any benefits from the continued participation and utilisation of CLASS will be passed-through to consumers through lower (BSUoS) network charges.

We should also stress that generators connected to local DNO areas may not be able to use and control their assets in the same way CLASS is using network assets. Generators need to comply with power factor and voltage requirements that could be considered barriers for participation in flexible markets. For example, embedded generation can't provide reactive power services in most of the GB areas as potential impacts to the DNO network need to be assessed in advance. As such there is a risk that CLASS minded-to decision could further harm the level playing field.

We note the issues discussed later in our response, with regards to unintended consequences such as obtaining consumer consent and links to actions taken by parties connected below a substation with CLASS technology. We see merit in investigating these issues further before taking final decision on the treatment of CLASS.

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

[1] ENA, 'Flexibility Market Principles', July 2019
https://www.energynetworks.org/assets/files/electricity/futures/Open_Networks/ON-WS1A-P1-Flexibility%20Market%20Principles%20(Final).pdf

In addition to the points raised above; as long as appropriate measures are implemented to ensure conflicts of interest are mitigated, market liquidity is monitored and development of markets at lower voltages incentivised in RIIO-ED2, market-based mechanism would provide the most efficient incentive for CLASS.

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)?

We are supportive of the principle where DNO profits from CLASS utilisation are shared with consumers.

Totex efficiency incentive rates for RIIO-ED1 range between 53% to 70% (paragraph 2.21 in the consultation). Interpretation of these figures translates to consumers being passed between 47% to 30% of the profits from the provision of CLASS. While the efficiency incentive rates for RIIO-ED2 are yet to be determined, we note that currently the majority of the benefit from CLASS utilisation is retained by the DNO. Such treatment is in line with recent findings by the National Audit Office (NOA)[2], which state that electricity distribution companies are forecasting underspend of 3% against their RIIO-ED1 allowances by the end of April 2023. We support Ofgem's commitment to address such issues in RIIO-ED2 and wider efforts to encourage DNOs to share profits with consumers.

In contrast to the profit-sharing mechanism for CLASS outlined in the consultation, commercial flexibility providers are able to largely absorb the risk of being unsuccessful in market tenders and thus reduce consumers exposure to losses. Contractual arrangements between aggregators and their customers could be designed in way where an incentive to participate is provided (in a form of profit share), while the responsibility to mitigate risk of participation in balancing markets is placed within the flexibility provider. DNOs treatment of risk is fundamentally different and could distort the market.

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

No further comment.

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

We agree with Ofgem's assessment regarding option 1B; bringing in CLASS within the price control with associated utilisation and capacity expectation will distort market competition for ESO balancing services and unfairly penalise commercial flexibility service providers.

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

Neither Ofgem nor the DNO participating in CLASS have produced evidence to ensure there are no system reliability issues. We believe the DNOs providing CLASS is the best placed to provide analysis on the issue.

[2] National Audit Office, '*Electricity networks*', January 2020 https://www.nao.org.uk/wp-content/uploads/2020/01/Electricity-networks.pdf

We note the point raised in our response below regarding unintended consequences of continued provision of CLASS and additional costs imposed on consumers.

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?

We do not agree with the assessment on historical performance. The assessment did not consider all the costs that the DNOs are imposing on network users and therefore misrepresents the benefits to GB consumers.

The primary reason why DNOs are not incorporating all costs in the provision of CLASS response is because the DNO does not own the energy that it is selling to NG ESO as a service. The DNO has not asked customers permission to provide response on their behalf, and appropriate arrangements have not been established to compensate customers for that energy. As such, the evidence set out in Appendix 2 does not meet one of Ofgem's objectives on fairness: 'to protect consumers, especially the vulnerable, by stamping out sharp practice and ensuring fair treatment'.

A DNO's ability to practice voltage reduction on a network has a negative impact (i.e. increases costs) for other parties on that network who are seeking to provide the same response service to NG ESO. We understand that some DNOs have stated this as the reason why they have not provided the CLASS service to date. By reducing voltage, the DNO will place suppliers who have customers connected to that network out of balance, which will increase supplier's exposure to imbalance charges which are high and hard to forecast. Voltage reduction increases losses on a network, and the DNOs are not compensating parties who will have to pay for those increased losses. Even if a very small amount of the costs of CLASS are being recovered through the network company's regulated activities (e.g. operation and maintenance costs of RAB asset base), this represents a material level of cross-subsidisation between the company's competitive and regulated activities.

It will be helpful if Ofgem clearly sets out the boundaries around contestable services which DNOs are allowed to bid beyond the treatment of CLASS. We are concerned that the minded-to position on CLASS is setting a precedent for the future role of DNOs participation in balancing markets. With no clarity on how the separation of DNO and DSO functions will be managed, and information asymmetry addressed, such precedent will further reduce investment by commercial participants into flexible services. Flexible technologies, including large volumes of storage and demand-side response, will be integral for providing a power system fit for 21st century and are estimated to save consumers up to £8bn by 2030[3]. The preferred treatment of project CLASS is distortive for competition and significantly risks undermining investment in GB markets for flexibility and the projected consumer benefits of new technologies and new business models.

We agree with the statement in the consultation that '*There are contestable activities DNOs should not be involved in*' (paragraph 3.26). Innovation projects which aim to demonstrate the capability of DNOs to provide essential services to the System Operator beyond CLASS already exist. Project Phoenix developed by SPEN is looking to showcase the competitiveness of synchronous

[3] National Infrastructure Commission, '*Smart Power*', March 2016 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505218/IC_Energy_Report_web.pdf

compensators in provision of wider system services such as inertia and voltage stability. The NG ESO has prioritised all pathfinder projects in this area with future system services likely to reflect the learnings. In combination with CLASS, which has the potential to be rolled out across ~5,000 primary substations across all DNO areas, the impact on competition from wider DNO participation in current and future balancing markets merits further investigation. We do not think that Ofgem's assessment accurately captures the risks of increased DNO market power in the future as these are not limited to the regulatory treatment of CLASS as a service.

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?

DNOs control the physical infrastructure needed to trade energy flexibility services. In the absence of policy direction on the legal separation between DSO activities and DNOs, we believe it is vital to ensure that GB markets for flexibility continue to be competitive and attractive. There is a risk of DNOs unduly taking advantage of their monopoly positions or otherwise harmfully distorting the competitive delivery of services that could be provided by the market.

There are no obligations for DNOs to publish operational data regarding their network. This exacerbates issues of information asymmetry between DNOs and commercial participants in balancing services. This data is core to well-functioning flexibility markets, and provide value to flexibility providers, aggregators and platforms. Such data includes planned system outages, constraints on the system, resource availability and dynamic network monitoring. With no clear separation of activities or process regarding the role of DNO or DSO, the current issue of information asymmetry could lead to market failure, if appropriate measures are not adopted as economic theory suggest.

Allowing network monopolies to participate in balancing markets could result in potential procured flexibility not being utilised because the network company has prior knowledge of network information, e.g. week-ahead or month-ahead outage information. Further risks include ability to manipulate information, such as extending system outages in an area which restrict commercial assets participation, at the expense of DNO participation in essential system services.

Increasingly DNOs will be able to coordinate their activities such as process scheduling, sharing of operational data and digital services with other electricity network licensees as changes to the licence conditions with regards to whole system[4] are enforced. We welcome the recent progress in this area and the benefits a closer coordination between network companies could achieve for promoting network innovation and development of local balancing markets. In combination with the lack of licence obligations around DNO operational data practices and the DSO regulatory framework, the risks of information asymmetry are of great concern to industry.

We welcome the development of a log register on perceived and real conflicts of interest by the ENA to record concerns raised by the industry. However, there is a need for an overarching roadmap to

[4] Ofgem, '*Statutory consultation on the proposed Whole Electricity System Licence Condition [D17]~[7A] for Electricity Distributors and transmission owners*', March 2020 https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-proposed-whole-electricity-system-licence-condition-d177a-electricity-distributors-and-transmission-owners

be put together by Ofgem and the ENA, with associated milestones, in order to improve industry confidence when mitigation actions are taken, and solutions implemented. We note that the issue of the use of CLASS in balancing services has been on this risk register since 2018 and relates to the ED1 period. This issue has still not been addressed, therefore a full impact assessment is clearly required.

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?

There is need for further licence provisions to ensure data and access to privileged information is safeguarded should DNOs be allowed to compete with market parties for the provision of services. Clarifying the roles and responsibilities of DNOs and DSOs in the future would be an effective way to ensure perceived conflicts of interest are mitigated. This will also ensure consistent practice across all DNO areas.

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?

Please note our response to Q8.

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?

Current licence provisions are insufficient in the absence of regulatory clarity around DNO and DSO licence obligations.

Please note our response to Q9.

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

No further comment.

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

We would encourage Ofgem to consider the requirements of baselining in order to ensure volumes are settled appropriately. As raised in our answer to Q7, the provision of CLASS as a balancing service by DNOs is likely to have an adverse impact on end-consumers and market participant imbalance. The dispatch of the network assets would have a distortive effect on supplier imbalances and increase costs to customers. DNOs with their ability to control the physical infrastructure needed to trade flexibility services create risks for suppliers that cannot be effectively managed.

Further consideration should also be given to the extend provision of CLASS could affect wider balancing actions. There could be significant implications for wider system players such as Virtual Lead Parties and aggregators which are responsible for load management below substation with CLASS technology. Voltage reduction on a network increases costs for other parties on that network who are seeking to provide the same response service to NG ESO. This interaction hasn't been explored within the analysis presented alongside the minded-to decision and might have profound

implications for development of commercial flexibility down to LV level in RIIO-ED2. We encourage Ofgem to consider this further and provide clarity to the industry through the publication of an impact assessment before any final decisions are made.

Following on from the recent decisions regarding storage operation and commercial aggregation, an overarching policy framework should be put in place to set out clear boundaries around activities DNOs are allowed to carry out. A case by case approach to dealing with DNO contestable services participation is likely to be more costly and bring additional administrative burden. In times of significant regulatory challenges such approach creates a risk of potential delays that could erode the market confidence.