



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

Northern Powergrid's response to Ofgem's consultation on the regulatory treatment of CLASS services from DNOs

KEY POINTS

- The provision by distribution network operators (DNOs) of Customer Load Active System Service (CLASS) services to the ESO has the potential to reduce the costs of balancing the system. An effect that would lead to lower bills for customers. This is one of the benefits that could be delivered to customers by DNOs increasingly taking on more active distribution system operation (DSO). Any risks introduced by DNOs performing this role are readily mitigated.
- We support the minded position for a market based approach (option 1A) which indicates that this solution provides the most value for customers.
 - The market based approach delivers the highest likelihood that investments in CLASS will be taken ahead only to the extent they are efficient i.e. their cost is less than the expected revenues.
 - DNOs would have a strong profit motive to ensure this, since they would be exposed to a large share of those profits (or losses).
 - The provision of these services by DNOs is a sustainable outcome since it is a secondary benefit of an asset that would otherwise still have been built.
- We agree with Ofgem that requiring CLASS within the price control would not promote efficient investment signals and could distort competitive outcomes as this approach would remove the 'margin' element.
 - As companies would look to find an efficient solution and maximise performance against the totex incentive mechanism which would have an obvious impact on competition.
 - Prohibition of CLASS would deny consumers the potential benefits from the efficient use of assets and increase overall balancing costs.
 - As such, we agree with Ofgem that this option should not be taken ahead due to the consumer detriment it would cause.
- Since the balancing services market is national, individual DNO groups would not have sufficient market power to distort outcomes; and neither could their visibility of information and special position in their local area confer any particular advantage.
- Allowing DNOs to provide CLASS on a competitive basis plays into an open market, pushing down the clearing price to the benefit of the customer.
- The evidence suggests that the wider use of CLASS would not affect the likelihood of system reliability issues.

Responses to specific Ofgem consultation questions

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

1. Ofgem's options appear to be a comprehensive list of the options that can be taken ahead under the current arrangements for electricity distribution, therefore they are appropriate.

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

2. Yes, we agree with Ofgem that market based mechanisms can provide the most efficient incentive for Customer Load Active System Service (CLASS) participation in balancing services.
3. If Ofgem adopts a regulated approach, then this could mean:
 - a. DNOs under-invest in CLASS, for example if a regulated price (under directly remunerated services 9DRS8) is considered too low to warrant the investments; or
 - b. DNOs over-invest in CLASS, for example if Ofgem mandates its provision free of charge to the ESO (with costs covered via the price control), with no price feedback mechanism to prevent excessive use of (or investment in) the service.
4. In the first scenario, consumers would pay too much for balancing services directly, since they would be provided by more expensive solutions instead of CLASS.
5. In the second scenario, consumers would again overpay, although this time the effect would be indirect; cheaper technologies could be frozen out of the balancing services market, raising overall consumer costs (since consumers would pay for the DNO costs via the price control).
6. This echoes our stance on sustainability that we have set out in DSO v1.1¹. In essence, we consider the fuller use of existing network (e.g. transformers and tapchangers for CLASS) or customer assets (e.g. electric vehicles with vehicle to grid capability) as a cost effective way to provide energy services. We are keen to exploit these opportunities as a way to manage the whole energy system if it minimises costs for customers or provides additional customer revenue.
7. A market based approach delivers the highest likelihood that investments in CLASS will be taken ahead only to the extent they are efficient i.e. their cost is less than the expected revenues. DNOs would have a strong profit motive to ensure this, since they would be exposed to a large share of those profits (or losses).

¹ <https://www.northernpowergrid.com/asset/0/document/5139.pdf>

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)?

8. The DRS8 profit sharing arrangements are specifically designed for 'value added' services like CLASS; the equal treatment of profits and losses under these arrangements is a direct application of one of Ofgem's design principles for RIIO-2 (the equivalence principle)².
9. The application of a sharing factor to both profits and losses aligns DNO and consumer interests fully; in effect making energy consumers an equal partner (or equity holder) in the investment. It means DNOs will face a strong incentive to take forward profitable investments (which will also benefit consumers); and an equivalently strong incentive to avoid loss making investments.
10. If energy consumers were to share in the benefits but not the losses (which would instead fall entirely on shareholders), this would mean DNOs may rationally choose to not invest in CLASS when it would be profitable on the expectation that there was a disproportionate risk of losses – since shareholders would (on expectation) pick up all of the losses, while retaining only a share of the profit. This would distort the market mechanism and lead to inefficiently low levels of investment in CLASS.
11. By applying the sharing factor to profits or losses in a neutral fashion Ofgem also ensures that DNO costs are treated equivalently regardless of whether they are allocated to the DRS or the price control (PCR). This treatment therefore eliminates any commercial incentive to under-allocate costs to the DRS, and should therefore enhance stakeholder confidence in the neutrality of DNO accounting procedures.
12. The worked example below illustrates this point, assuming a DNO share of 60%.

	Revenues	Costs allocated to		DRS profits	DNO share of		DNO profits
		DRS	PCR		DRS profits	PCR costs	
Example 1: profitable DRS							
Costs to DRS	100	20	0	80	48	0	48
Costs to PCR	100	0	20	100	60	12	48
Example 2: loss making DRS							
Costs to DRS	10	40	0	-30	-18	0	-18
Costs to PCR	10	0	40	10	6	-24	-18

² Ofgem, December 2019, RIIO-ED2 Framework Decision, page 65

13. As shown by the example above, the outcome in terms of DNO profits is always the same whether the DNO costs are allocated to the DRS or to the price control. This would not hold if energy consumers only shared in profits, but not losses, potentially damaging stakeholder neutrality in DNOs' accounting procedures and requiring additional red-tape administrative costs (which would ultimately fall on energy consumers).

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

14. The answer to this question depends critically on what a 'reasonable margin' means in the context of a service that is available to the ESO from a wide range of providers via a competitive bidding process where the DNO is not setting the price. For example it might mean that the DNO:
- a. can set the margin so that it charges up-to the competitively determined market price; and
 - b. has to limit the margin to achieve a certain profitability, even if this means it would undercut the market price.
15. If it is reasonable for the DNO to charge whatever margin is necessary to charge at the competitively determined price, then:
- a. The price charged under DRS9 could be equivalent to under DRS8.
 - b. DNOs would still be incentivised to take forward exactly the same investments (i.e. those that are expected to be profitable).
 - c. Consumers would receive no share, at least not in the ED2 price control period.
16. However, to the extent that a 'reasonable margin' is lower, or to the extent there are compliance costs or risk associated with the evaluation of a reasonable margin (as noted in paragraph 3.15 of the consultation), Ofgem is right to evaluate that DNOs could be disincentivised from pursuing some investments in CLASS even though those investments would be efficiently made.

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

17. Yes, we agree with Ofgem that this option would not promote efficient investment signals and could distort competitive outcomes.
18. This approach would remove the 'margin' element as companies would look to find the efficient solution and maximise performance against totex incentive mechanism which would have an obvious impact on competition.

19. Should Ofgem effectively mandate the ESO to procure CLASS ahead of other energy services, this would have significant competition effects.
20. Ofgem should not specify capacity capability that DNOs make available. Such micromanagement risks driving perverse incentives that do not benefit consumers i.e. forcing the hand of companies towards certain solutions when these may be sub optimal for networks or customers.
21. Building this into cost assessment is also be inefficient as if Ofgem went down this route it should form part of totex and be benchmarked at that level.
22. Allowing DNOs to compete with CLASS, and not funding it automatically through the price control, gives DNOs an incentive to participate in balancing services markets only where it is expected to be competitive and therefore assist in delivering lower balancing costs.

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

23. The evidence suggests that CLASS could not affect the likelihood of system reliability issues.
24. The CLASS service for primary frequency response involves tripping one of the two transformer circuit breakers at a primary substation and it would not be permitted, via a substation controller, from operating if there was an outage on the other transformer.
25. Therefore the impact on system reliability is negligible. The CLASS service for secondary frequency response involves applying a 5% voltage reduction via the primary substation tapchangers which are designed to operate frequently and so there is no impact on system reliability.
26. We also note that the ENW CLASS innovation project assessed the impact on asset health and identified no significant concerns.
27. DNOs are also in a position to internalise the likelihood of any local system reliability or health impacts. If reliability is reduced they would face the DNO share of the costs of this reduction through the interruptions incentive. If asset health degrades they would also bear the DNO's share of the costs associated with this.

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?

28. We have no evidence to suggest that competition is currently being distorted or impeded by the participation of CLASS.
29. The evidence we have suggests the opposite. ENW provide 1.6% of secondary firm frequency response and 13% of firm fast reserve; this level of provision could not have distorted or

impeded competition in any way. We agree with Ofgem's assessment that it is unlikely DNOs have or would have market power in future.

30. Allowing DNOs to provide CLASS on a competitive basis plays into an open market, pushing down the clearing price to the benefit of the customer.
31. The market for balancing services is national, rather than local.
32. There are six DNO ownership groups, as well as other potential providers of balancing services, so active competition (and/or the scope for low-cost entry) would prevent DNOs from holding market power.

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?

33. DNOs would not have any particularly privileged access to information that would offer an unfair advantage in balancing services provision.
34. Since the market for balancing services is national, any visibility the DNO has over its local distribution services area would be of limited value.
35. If the ESO begins to provide DNOs national visibility (e.g. new providers of balancing services expected to come to market) any potential distortions could easily be mitigated, e.g. by making the information open access. We are also not clear that there would be any need for the ESO to give DNOs national visibility of this sort of data; which means the issue may never arise.

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?

36. As referenced in our response to question 8, we cannot see how any of the information that a specific DNO has access to could be used to benefit the commercial performance of CLASS.
37. We understand the market for flexibility services is national and therefore any information a DNO has on its local distribution services area would be of limited value.

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?

38. We do not think DNOs could take advantage of their DNO role in the context of providing balancing services with CLASS.

39. In saying this, we recognise that DNOs are providers of connections, including to other potential providers of balancing services (e.g. distribution connected battery owners).
40. However, DNOs would not be able to take advantage of this role for two reasons:
- a. The obligations placed on DNOs by legislation and their licence (in particular standard licence condition 19) would ensure continued market access for balancing service providers. Any DNO that breached those obligations could potentially be subject to significant penalty.
 - b. Each individual DNO could have only a limited impact on the national balancing services market; therefore its incentive to use whatever position it has to prevent other balancing providers connecting to its network would in any case be limited.
41. The combination of extensive penalties and limited potential payoffs means the risk of such conduct is low.

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?

42. Yes, the existing obligations are extensive and would prevent the DNO taking advantage of their DNO role in providing connections. These obligations are additional to competition law, which would provide further protection.
43. In any case, as we note in response to question 10, any DNO breaching these obligations could have only a limited impact on the national market for balancing services. Therefore the potential payoff to DNOs from breaching their licence obligations and competition law would be very limited. There is overall a very low risk of such conduct.

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

44. There are extensive measures in place already that would address actual risks.
45. To help address risks that other stakeholders perceive, Ofgem could publicise in its decision the obligations which it considers could prevent DNOs from taking advantage of its position, along with the potential penalties.
46. Transparency of data over the longer term, including the share of the balancing services each DNO holds, and its revenues, could also help address perceptions of risks.

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

47. Ofgem has produced a comprehensive list of questions in the consultation that identify areas where more material risks need to be considered. Ofgem has noted correctly in the consultation that:
- a. to the extent DNO participation reduces market prices, some other providers may be displaced; and
 - b. the overall price to consumers would be reduced, through an efficient use of available resources to meet system needs.
48. We can see no other potential effects of competition in this specific case.
49. The fact that those providers offering a relatively costly product may be displaced in the short term should not weigh particularly heavily in Ofgem's decision, since the principal objective of the Gas and Electricity Markets Authority is to protect the interests of existing and future energy consumers, and consumers will benefit over the long term from CLASS being available to the ESO as a balancing service.