
ADE Response | TNUoS Call for evidence | 12 November 2021

Context

The ADE is the UK's leading decentralised energy advocate, focussed on creating a more cost effective, efficient and user-led energy system. The ADE has more than 140 members active across a range of technologies, they include both the providers and the users of energy equipment and services. Our members have particular expertise in heat networks, combined heat and power, demand side energy services including demand response and storage, and energy efficiency.

ADE Response

Overall

The ADE provisionally considers that some reform of TNUoS would be beneficial.

However, we would also note that industry is concerned by adding further uncertainty in the context of several years now of long-running and in the case of Access, still ongoing network charging reforms.

Priority areas of reform

Principles

The principles for the objectives of this reform should include the following.

- It needs to create a network charging framework that will be robust to the range of possible future scenarios at least in the 2020s and 2030s; including, in particular, the flip from a dispatchable generation side with passive demand to a more dispatchable demand-side with a weather-dependent generation-side.
- The methodology should clearly and appropriately value the efficiency of generation and storage located near to demand.
- Implementation should be practical and as far as possible, not overly complex.
- Ofgem must give industry several years from when the final charging tariffs are published to their implementation, in order to give industry enough time to incorporate them into business cases and budget planning. The fact that a review is underway is not in itself enough information for industry to act on.

Specific points and questions for the review

The ADE considers the following questions important –

- In future, national demand peak may follow peak in renewable generation to achieve the most cost-effective system. If this becomes the case, the concept of peak demand and its impact on the system as a whole will be radically different. This reform should consider a) the impact

on transmission of demand actively shifting towards renewable peaks and b) what the role of the methodology itself is in encouraging this.

- As we have seen for many years now, significant generation and storage capacity will be connected to the distribution networks. The TCR and Access Significant Code Review have not explored the impacts of this for transmission in sufficient detail – relying largely on relatively old analyses (for example, regarding avoidance of reinforcement of the GSP to inform the calculations for the EET). This review should explore this properly and in detail.
- The system already needs and will increasingly need larger storage capacity; as shown in several whole system models and in the ESO's new frequency response products. To date, storage has been fitted into TNUoS but there has not been a more significant review of whether its characteristics require more differentiated treatment compared to generation and demand.
- Whole system models repeatedly show that the most significant savings created by flexibility are in avoided network reinforcement and avoided investment in generation. At distribution, the network operators have now committed to a Flexibility First approach to network planning. At transmission, some steps have been made to open up the network reinforcement process to be more agnostic and more open to other actors (e.g., DNOs) and some limited engagement has taken place between the ESO and DSR sector on this topic. Whilst acknowledging that transmission reinforcement is very different to distribution reinforcement and that the role of flexibility may be more limited, this review should explore this in detail to ensure that the framework allows flexibility to bring forward more cost-effective solutions where it can do so.
- At present, and in simple terms, the methodology relies on the counterfactual of having built infrastructure to calculate charges; regardless of whether the infrastructure is indeed built. Modelling of where GB will need to build new transmission infrastructure indicates that going forward, there will be significant new infrastructure in some areas (e.g., for offshore transmission) but that in many onshore areas, the transmission network may not expand. As a result, this reform should also look at how existing capacity on the transmission network is currently modelled and whether this should be reviewed in future; just as has been done through the Access SCR for distribution.
- The TNUoS demand residual is now extremely significant and dwarfs the cost-reflective charge. This reform should review whether this is a true description of the costs of the transmission network.
- Through the TCR modifications, it became clear that the introduction of the TNUoS demand residual creates the perverse outcome of creating a negative TRIAD signal in some TNUoS zones. This indicates more fundamental issues with the methodology that should be opened up and explored through this review.

Correct vehicle for change

On balance, the ADE supports the launch of a Significant Code Review.

The ADE recognises the value of a taskforce in using industry expertise without impacting other areas of change. However, the ADE does not support it for three reasons. Firstly, this review has the potential to be extremely complicated and far more complicated than BSUoS reform. As a result, the taskforce is likely to continue for some time if required to find conclusions on TNUoS. Secondly, the previous taskforces did not have any budget for techno-economic CBAs that would be carried out through open governance and are likely to be important to draw findings for this

review. Thirdly, the conclusions of a taskforce are not binding. Therefore, contentious issues would still be open for discussion during open governance which would follow a taskforce. Given the distributional impact of any TNUoS reform, this means that a taskforce is unlikely to make the entire process more efficient.

The ADE does not also on balance support the use of open governance. To the advantage of open governance, the detail that will be so key to this reform would be discussed and debated from the outset and it would allow industry to be heavily involved in these discussions. To its disadvantage, TNUoS reforms could have extremely different impacts on different sectors, between generation and demand and between generation located near to demand compared to elsewhere. Therefore, open governance is likely to be extremely lengthy and more importantly, may not reach the right conclusion with respect to finding the most sustainable and cost-effective framework for the future.

The ADE recognises that the Significant Code Review process can also be extremely lengthy and that to its disadvantage, it is unlikely to go into detail until the final stages, once Ofgem's overarching decision is finalised. However, it also has the advantage of being driven by the regulator for a decision which will have significant winners and losers, is likely to take a stronger strategic and forward-looking perspective than the alternatives and has more weight than taskforce recommendations.

Timescales

As stated above, industry is concerned that they have already had several years of uncertainty from network charging reforms and that this would lead to further uncertainty, potentially for quite a few years to come. This would tend towards a shorter timescale if possible.

However, against this, industry also agrees that there are already parts of TNUoS which are creating perverse outcomes and that this is likely to be exacerbated as the system decarbonises further. This would obviously tend towards a longer timescale if necessary.

Therefore, on balance, if this reform is going to go ahead, the ADE considers it more important for the scope to be ambitious in creating a framework for the significant changes likely to happen this decade and next, rather than limiting the reform to smaller issues in order to conclude more quickly.

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