Public

Workgroup Consultation

CMP444:

Introducing a cap and floor to wider generation TNUoS charges

Overview: This modification seeks to introduce a temporary cap and floor mechanism to wider generation TNUoS (Transmission Network Use of System) charges, to reduce investment uncertainty for generators and developers.

Modification process & timetable

1. **Proposal Form**
   21 October 2025
2. **Workgroup Consultation**
   23 January 2025 to 29 January 2025
3. **Workgroup Report**
   03 March 2025
4. **Code Administrator Consultation**
   10 March 2025 to 14 March 2025
5. **Draft Modification Report**
   24 March 2025
6. **Final Modification Report**
   28 March 2025
7. **Implementation**
   01 April 2026

Have 10 minutes? Read our Executive summary
Have 30 minutes? Read the full Workgroup Consultation
Have 60 minutes? Read the full Workgroup Consultation and Annexes.

Status summary: The Workgroup are seeking your views on the work completed to date to form the final solution(s) to the issue raised.

This modification is expected to have a: High impact on Generators, Storage operators, NESO, Suppliers, Consumers

Governance route	Urgent modification to proceed under a timetable agreed by the Authority (with an Authority decision)

Who can I talk to about the change?	**Proposer:** Niall Coyle, NESO Niall.coyle@nationalenergyso.com	**Code Administrator Chair**: Catia Gomes Catia.gomes@nationalenergyso.com Phone: 07843816580
How do I respond?	Send your response proforma to cusc.team@nationalenergyso.com **by 5pm on 29 January 2025**	

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Executive summary

This modification proposes to introduce a temporary single GB-wide cap and floor to wider TNUoS generation charges in response to the Ofgem Open letter published in September 2024. As outlined in that letter, this change is intended to provide more certainty to generators to make clearer investment decisions ahead of the upcoming Contracts for Difference (CfD) Allocation Round 7 (AR7) auction, and potential changes to energy pricing that could be implemented by HM Governments Review of Electricity Market Arrangements (REMA), to ensure GB can attract the investment in generation required in the context of Clean Power by 2030.

What is the issue?

On 30 September 2024 Ofgem published an open letter outlining their concerns around the uncertainty of long term TNUoS (Transmission Network Use of System) generator charges, and the risks posed by TNUoS unpredictability caused by the NESO's 10-year generation TNUoS projection. This uncertainty was deemed to raise significant concerns to HM Government's ambition of achieving a clean power system by 2030. The letter asks NESO to raise a modification to mitigate these challenges and reduce investment uncertainty.

What is the solution and when will it come into effect?

Proposer's solution:

Apply a single £/kW cap and floor for the whole of GB to each of the YRS (year-round shared), YRNS (year-round not shared) and PS (Peak Security) tariff elements of the wider generation TNUoS charge. The initial £/kW cap and floor values for each element shall be calculated as the 97.5th and 2.5th percentile respectively for each of the different tariff elements across all generation zones and years from the NESO 5-year view TNUoS tariff publication published in April 2024, in 2025/2026 prices.

In line with Ofgem's letter, both the cap and floor are anticipated to be temporarily in place until the reforms through REMA are implemented, although no specific end date has been defined in this modification. Transitional arrangements and/or additional ongoing protection may be required for generators who make an investment decision while the temporary arrangements are effective.

Implementation date: 01 April 2026

Summary of potential alternative solution(s) and implementation date(s).

Original and Alternative requests	Rationale	Cap and Floor	Recovery of breached cap and floor charges	Data used to derive Cap and Floor	Statistical methodology to derive the Cap and Floor values	Implementation Date
Original	Sets the cap and floor at the limits of the 5-year forecast, thereby stopping charges in the 10-year projection from out-turning	Single GB wide	Via the Generation Adjustment tariff	5-year NESO forecast (2024/25 to 2029/30) (published April 2024)	97.5th and 2.5th percentiles	1st April 2026
Alternative 1	Intends to address what the proposer believes is an ineffective floor in the Original proposal, by setting more stringent cap and floors levels	Single GB wide	Via the Generation Adjustment tariff	Same as original	90th and 10th percentiles	1st April 2026
Alternative 2	Allows for locational signals to be better maintained	Two-tier	Via the Generation Adjustment tariff	Same as original	1 standard deviation	The decision date is far more important than the actual implementation.
Alternative 3	As Alternative 2 but does not redistribute risk to generators	Two-tier	Option to recover from demand residual	Same as original	1 standard deviation	The modification is not required to be implemented for a number of years, but the decision date needs to be in time to be taken into account in future auctions.
Alternative 4	Withdrawn					

Alternative 5	Applies policy principles to derive an appropriate level of cap & floor	Single GB wide	Via the Generation Adjustment tariff	Same as original	60th and 40th percentiles	1st April 2026
Alternative 6	Excludes data from 2029/30 year which has significant network investment modelled	Single GB wide	Via the Generation Adjustment tariff	4-year NESO forecast (2024/25 to 2028/29) (published April 2024)	Same as original	1st April 2026
Alternative 7	A different approach to applying the cap and floor, by scaling charges in all zones to better retain the locational signals	Single GB wide	Via the Generation Adjustment tariff	4-year NESO forecast (2024/25 to 2028/29) (published April 2024	Uses the maximum value and range for each tariff component	1st April 2026

What is the impact if this change is made?

High impact on Generators, Storage operators, NESO, Suppliers and Consumers.

Generators and Storage Operators: Applying a cap and floor to generator TNUoS charges will protect generators and storage operators from the unpredictable TNUoS tariffs that may out-turn as a consequence of the modelled network investment planned to meet Net Zero targets. Generators will face an adjustment to the generation adjustment tariff to recover any contribution that breaches the cap and floor levels set.

NESO: changes will be required to change the tariff setting process to reflect the cap and floor proposals. There are no structural changes required on the TO in the solutions presented, as per Ofgem's guidance.

Suppliers: There is not intended to be any structural changes that would require suppliers to change any systems to reflect any new solution. There is an added risk that should the money be recovered through the demand residual tariff; additional forecasting of those values will need to be undertaken as to collect the correct money from consumers.

Consumers: There may be an impact to consumers through different CfD prices resulting from the cap and floor. This may be negative or positive overall and Ofgem will assess this for the original solution and each alternative proposal in their impact assessment. CfD clearing prices may go up or down depending on which generator sets the CfD clearing price, and consumers may be positively or negatively impacted depending on which solution is chosen and how generators respond.

Consumers may benefit through a reduction in inframarginal rent in the Contracts for Difference auctions, by reducing bids for generators in northern GB through reduced costs and associated risk, however the extent of this impact depends on which generator sets the CfD clearing price. However, there is a potential disbenefit, as all other generators are likely to price their CfD bids at higher level as a result of increased charges from a reduction in the Generator Adjustment Tariff, and for some generators from the impact of the TNUoS Floor on negative charges.

Since the vast majority of generators participating in the Capacity Market are not located in Scotland and therefore will not benefit from the cap, it is possible that the Capacity Market clearing prices may increase as a result of the reduction in the Generator Adjustment Tariff.

Any alternative proposals that seek to recover the change in revenue where the cap or floor is breached directly through the demand residual tariff component will lead to increased TNUoS costs for consumers.

Interactions

There are no interactions with other in flight mods in terms of implementation as the single GB cap/floor allows for changes to the underlying methodology to calculate the wider charge, however modifications that impact the level of TNUoS charges, such as CMP423 (Generation Weighted Reference Node) or CMP315 (TNUoS: Review of the expansion constant and the elements of the transmission system charged for)/CMP375 (Enduring Expansion Constant and Expansion Factor Review), could lead to the cap and floor being breached more or less frequently.

On 20 January 2025 the Authority has published the decision on the urgent treatment for CMP432 stating that "with respect to potential interactions with the proposed cap and floor mechanism through CMP444, we agree with the Proposer that CMP432 should be progressed in parallel, or prior to CMP444 "Cap and Floor" modification. We consider that the prospects of modifying the Security Factor post the introduction of the cap and floor could generate uncertainty and interact with levels of the cap and the floor if introduced."

What is the issue?

On 30 September 2024 Ofgem published an open letter[1] outlining their concerns around the uncertainty of long term TNUoS (Transmission Network Use of System) charges, and the risks posed by TNUoS unpredictability to HM Government's ambition of achieving a clean power system by 2030. That letter asks NESO to raise a modification to address those concerns.

The scale of the investment required over the next decade is unprecedented, both in networks and generation. The 10-year projection of TNUoS charges published by the NESO in 2023 projected significant increases to charges for generators, particularly in the north of GB, over the next decade. These escalating costs for generation in the north of GB risks driving up consumer costs via increased CfD (Contracts for Difference) bids that incorporate a larger risk premium than would otherwise be necessary, or deterring investment in new generation, which could put the achievement of Clean Power 2030 goals at risk.

Ofgem has via the open letter, asked NESO to develop a temporary proposal that takes account of the principles below:

- Establishes appropriate, individual, upper and lower limits on the £/kW charges paid by generators through the Year-Round and/or Peak Tariffs.
- Retains regional/locational differentials in charges and between technology types through a single GB cap and floor.
- Maintains a procedure for ensuring compliance with the requirements on generator annual average transmission charges as provided for in Regulation 838/2010.
- Is capable of implementation without requiring NESO to change its TNUoS forecasting approach or timetable.
- Is capable of implementation from April 2026, if approved.

There are currently a number of reforms to the TNUoS charging methodologies progressing via CUSC modification Workgroups; the Proposer of each change contends that it would improve the locational signals sent to the market through TNUoS. The temporary intervention necessary to reduce uncertainty for generators through a cap and floor to elements of generation TNUoS charges (as per Ofgem's open letter) must also still allow for subsequent code modifications to make further improvements to the

[1] https://www.ofgem.gov.uk/sites/default/files/2024-09/Open_letter_TNUoS_intervention_vF_Publications.pdf

underlying TNUoS charging methodologies. As this change proposes a universal GB-wide cap per generation tariff element, and not a zonal cap, it is not contingent of the method used to define generation charging zones, which may be subject to revision (via CMP419 (Generation Zoning Methodology Review), if approved. This change is intended to provide more certainty to generators ahead of the CfD AR7 auction, and potential changes to energy pricing that could be implemented by REMA, under which electricity market arrangements are being reviewed by DESNZ and Ofgem.

For the avoidance of doubt, the intended scope of this modification is limited to the parameters stated above in Ofgem's open letter, by only considering options for a GB cap and floor to each tariff elements of the wider generation TNUoS charge, within NESO's existing forecasting approach/timetable. Broader, more fundamental, reforms to the TNUoS charging methodology, zonal cap options or fixing of parties TNUoS charges are out of scope.

Why change?

NESO has been asked by Ofgem to raise a modification to address the issues outlined above and deliver the stated benefits.

What is the solution?

Proposer's solution

Apply a single £/kW cap and floor for the whole of GB to each of the YRS, YRNS and PS tariff elements of the wider generation TNUoS charge. The initial £/kW cap and floor values for each element shall be calculated as the 97.5th and 2.5th percentile respectively for each of the different tariff elements based on the values calculated for each element across all generation zones and years from the NESO 5-year view of TNUoS tariffs for 2025/26 to 2029/30 Version 3, published in April 2024, in 25/26 prices.

Setting the cap and floor at the 97.5th and 2.5th percentile of the 5-year forecast ensures that 95% of the data of the 5-year forecast falls within the range of the cap and floor, thereby only the most extreme datapoints of the 5-year forecast fall outside the range. This threshold applied to the significantly higher baseline charges in Northern GB in the 10-year projection means these charges are stopped from materialising.

NESO proposes an annual indexation of the cap and floor, by applying CPI-H inflation. This is the same measure of inflation already defined in the CUSC, used for indexation of generator local circuit tariffs. This means that the cap and floor values would remain of

static potential effect in real terms by maintaining pace with inflation and would not (as this is not the intent) "bite deeper" over time due to inflation.

NESO is proposing to apply both the cap and floor via all three wider tariff components to ensure consistent treatment between technology types (as not all technology types are exposed to the same components, or in the same way) This will generally retain the existing differential in charges between technology types, which we consider to be a fair and un-discriminatory approach.

During the annual tariff setting process, where one of the applicable tariff components is calculated to fall outside of the range of the cap and floor, the tariff component will be replaced by the cap value when above the upper limit, or floor value when below the lower limit, whichever is relevant.

Any change in revenue recovery from generation due to the cap and floor mechanism will be recovered via a change in the generation adjustment tariff. This adjustment tariff is a non-cost reflective tariff element, which is typically a negative credit applied to all generation,

The intention for the proposal is for the cap and floor are to remain in place until the reforms through REMA are implemented. However, as the timelines for REMA are unclear at this stage, no end date has been defined in the solution, with the intention to raise another modification in the future once the decision/implementation timescales for REMA become clear.

Workgroup considerations

The Workgroup convened 6 times to discuss the perceived issue, detail the scope of the proposed defect, devise potential solutions and assess the proposal in terms of the Applicable Code Objectives.

Consideration of the proposer's solution

The Proposer shared the Original solution with Workgroup members and discussion were had around the introduction of a cap and floor.

A Workgroup member noted it was important to highlight there would be numerous deadlines impacted by this modification, not just the Celtic Seabed or Contracts for Difference (CfD) auctions. A question was asked about the timeline and target for the Workgroup to meet the AR7 application window, which had not yet been confirmed. The

Ofgem representative noted the Workgroup members point and advised appropriate dialogue and co-ordination between Ofgem and DESNZ was taking place.

Feedback was address by the Proposer received in Workgroup 1 in relation to double counting inflation. The Proposer confirmed that the 5-year forecast already factored in inflation. Therefore, it was being applied twice when the cap and floor levels are inflated.

A question about the 5-year forecast used in the projections, specifically why the original forecast wasn't based on the 2023 5-year forecast. The Proposer explained that using a more up-to-date forecast would be more appropriate and the choice of forecast is arbitrary.

The Workgroup discussed the importance of creating a cap and floor that gives investors' confidence, aiming to prevent extreme tariff outcomes. It was emphasized that the choice of forecast is arbitrary and that the cap is meant to stop extreme scenarios from happening.

Some Workgroup members questioned the rationale of the Proposer's Original solution. The Proposer stated their interpretation of the open letter was that the significant escalation of charges in the 10-year projection published by NESO in 2023 was the primary driver of uncertainty, for which the cap and floor intervention should look to address. Setting the cap and floor at the 97.5th and 2.5th percentile of the 5-year forecast ensures that 95% of the data of the 5-year forecast falls within the range of the cap and floor, thereby only the very highest and lowest tariffs of the 5-year forecast fall outside the range, which then means that the significantly higher charges in Northern GB in the 10-year projection are stopped from materialising.

Some Workgroup members emphasized the importance of maintaining cost reflectivity and locational signals, which are core TNUoS principles, as there is a risk if the cap and floor are not set at appropriate levels. They cautioned against implementing a cap value that, while benefiting northern GB generators, may disadvantage generators across GB, who made investment decisions based on the previous unrestricted charges. It is essential to give due consideration to all generators, not just those in Scotland.

A Workgroup member noted that long-term uncertainty around how charges will develop may increase costs for generators and create barriers to investment, ultimately risking the delivery of a clean power system by 2030 through Contracts for Difference ("CfDs") or merchant investments and reinvestments. The 10-year projection, however, has been useful in signalling the very high costs that could result using the current TNUoS methodology, given the very likely generation and network investments that will be required to meet CP30 targets. These costs seriously put at risk new generation investments in Scotland. Other Workgroup members highlighted that the 10-year projection had an underlying process for deriving the inputs that wasn't as robust the 5-

year forecast, leading to unrealistic elements and suggested using a set of robust figures that the NESO is comfortable with to set the tariff.

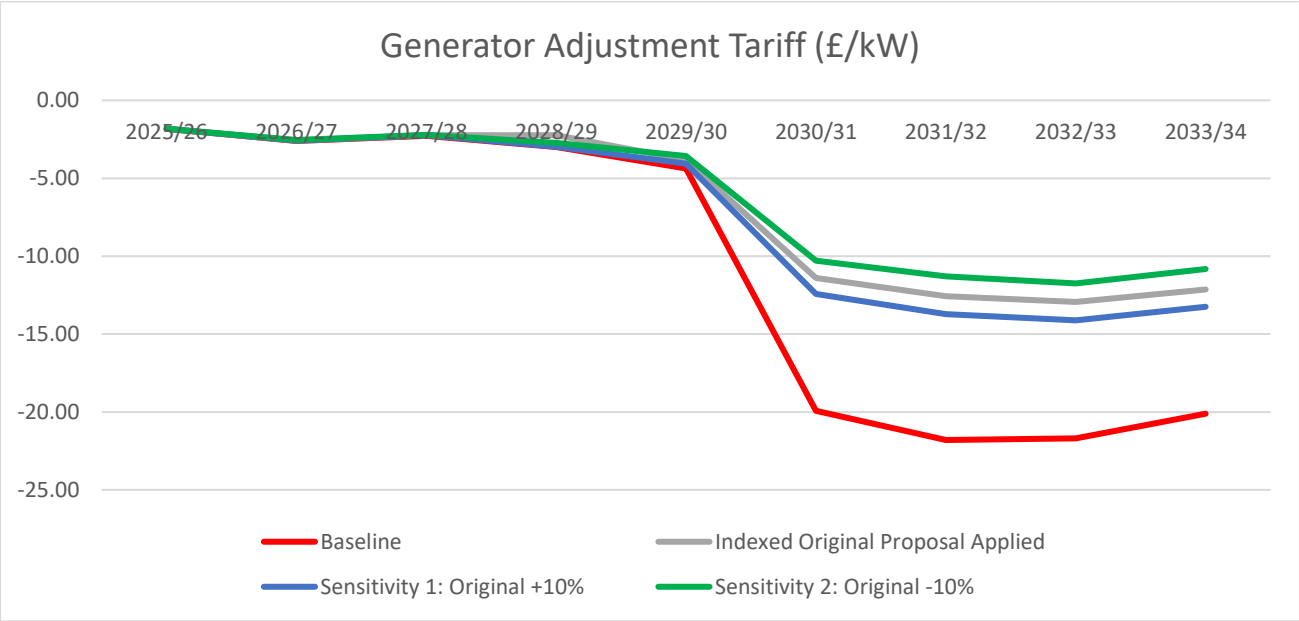
Some Workgroup members questioned the accuracy of NESOs 5-year forecast (published April 2024) and 10-year projection (published in September 2023) due to the publication of these being prior to the Clean Power 2030 publications. The NESO representative stated that the 5-year forecast is our best and most credible view of forecasts out to 2029/30 under the current charging methodology. The wider tariffs under the 10-year projection are also a credible view if all the network infrastructure the TOs think is necessary is built and delivered on time. The adjustment tariff may not be as robustly forecast due to the assumptions made on the level of new generation capacity and their location.

A Workgroup member pointed out that the Original Proposal did not prevent extreme tariff outcomes for many zones, as the cap is set at a high level and suggested an alternative proposal with a two-tier cap to address this issue.

Generator Adjustment Tariff

Analysis on the adjustment tariff was presented to the Workgroup, including the impact of different scenarios on the tariff and the importance of considering the 10-year projections.

Workgroup members discussed the implications of significant reductions in baseline adjustment tariffs and the need to believe in the 10-year projections for these reductions to materialise. The baseline adjustment tariff credits only become so large because of the significant increases in the wider tariffs and large increases to the generation capacity in the 10-year projection. If the wider tariffs and generation capacity didn't reach those highs, then the large negative adjustment credits wouldn't materialise.



NESO representatives pointed out that, whilst the cap is applied to locational elements of the Tariffs, the change in revenue is recovered through a non-locational adjustment tariff.

There were opposing views on whether addressing the Adjustment Tariffs maintains a distortion to the signal and that an incidental benefit from this Proposal will be to mitigate the adjustment tariffs.

Circuits in different backgrounds

A Workgroup member highlighted the issue of certain circuits in the transport model "flipping" between being designated as a peak circuit and a year-round circuit. This can impact the flows within a zone on a year-to-year basis, and therefore impact charges within that zone. The Proposer stated that it is not necessary to adjust for this phenomenon when calculating the cap and floor levels, as the proposed methodology would set the cap and floor looking at the full 5-year dataset, rather than picking a single year in the dataset (when a circuit would be in only one of the two potential backgrounds). If it is an issue of application of the cap (i.e. a generator is outside the range of the cap and floor one year and inside the range another) then the proposer believes this is a feature of the current charging methodology not specific to the cap and floor, and therefore is out of the scope of this modification.

Cap and floor duration

The Proposer stated the intention for the cap and floor to remain in place until the reforms through REMA, and consequential reforms to the TNUoS charging methodology, are implemented. The Proposer presented two options to define the duration of the intervention in the legal text:

1. Define an exact date for the cap and floor to be removed, based on the latest available timelines of REMA. It is likely with this approach that another modification will be needed in the future to correct the date once a decision is published and the implementation timelines become clear.
2. Define a trigger for when the cap and floor will be removed, linked to a specific REMA project milestone. This would be a more flexible approach, allowing for the end date to move if the project timelines moved, but defining an appropriate project milestone may be challenging.

Some workgroup members highlighted that a third option is available:

3. Do not define an exact end date, with the intervention then remaining in place until another modification is raised to amend the charging methodology.

Upon further consideration, the Proposer was unable to define an appropriate REMA project milestone to trigger the removal of the cap and floor (as the project is still in the

policy development phase rather than implementation phase). Both of the two remaining options would require a future modification to correct/define the expiry date of the intervention, with the proposer favouring option 3 – to not define an exact end date in this modification, but to raise another modification in the future to define the end date and any transitional arrangements/additional protection required once the decision and implementation approach for REMA become clear.

One Workgroup member suggested to introduce a scheduled review in the future (in for example 5-years) to assess whether the cap and floor is still necessary, and to decide at that point whether to extend or remove the intervention.

One Workgroup member highlighted that a key element of the TNUoS discussion relates to the question of: "are the charges serving a useful purpose?" This leads on to a broader question regarding: "Is it time to revise the nature of Transmission charges to recognise that technology differentiation should now be addressed as the drivers of investment are now very different to the drivers that were in place when the current regime was designed". Resolving this may be a stronger indicator of when any cap and floor should come to an end.

One Workgroup member emphasized that this modification has resulted from an intervention from Ofgem and it would be rational to rely on Ofgem to instruct NESO to progress a further modification in future, when it deems that the defect has come to an end.

The Workgroup started to consider the protection needed for investments made during the cap and floor and the rules that will need to be considered and applied to offer certainty that they would be granted some grandfathering rights. This sits outside of the CUSC Code change that is being proposed by this modification, but the Workgroup considers that is crucial that the topic is discussed and other measures to mitigate the issue are explored such as seeking comfort from the Government and affected Stakeholder. Some Workgroup members suggested that having a change without a certain level of security will make investments riskier. Further conversations will happen on this topic after the Workgroup Consultation.

Level of Cap and floor

The NESO representative stated that the 5-year forecast is our best and most credible view of forecasts out to 2029/30 under the current charging methodology. The wider tariffs under the 10-year projection are also a credible view if all the network infrastructure the TOs think is necessary is built and delivered on time. The adjustment tariff may not be as robustly forecast due to the assumptions made on the level of new generation capacity and their location.

The level of the Cap and floor was discussed by the Workgroup. NESO routinely produces a 5-year forecast (years 1-5) based on best estimate of generation growth and infrastructure build. NESO also provided a one-off longer-term projection (years 6-10) in 2023, based on forecasted generation and infrastructure. The projection shows a significant growth in generation and associated infrastructure, as such the projection forecast numbers significantly higher than the 5-year forecast. Example data from the forecast and projection are shown below[2].

Charging Bases	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Generation (GW)	75.78	78.00	80.51	99.21	103.29	106.92	117.74	125.70	134.20	138.76	157.86

Generation Tariffs (£/kW)	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Average Generation Tariff*	12.454583	12.937121	13.121493	11.303263	12.127407	12.721659	17.856852	20.154059	22.016934	24.394945	26.824238

Workgroup members have expressed different views on the levels of the cap and the floor achieved by the Proposer Solution.

Some Workgroup members have advocated for solutions that result in a lower cap for Northern Zones. They signalled that the reduction in the Tariff under the Original Solution is not large enough to deliver the investment required by Clean Power 2030. Other Workgroup members have argued that the threshold of the cap should be set at a level which allows the prevailing forecast to materialise.

Some members emphasised that Clean Power 2030 envisages large investment in Southern Zones, too. They cautioned against too low a cap which could significantly alter the trajectory of credits to Southern Zones, and the investment decisions which rely on these.

Workgroup members have also noted that the choice of methodology to derive the cap and floor is arbitrary and is dependent on which level of cap and floor is deemed appropriate to meet the Terms of Reference and Ofgem's Open Letter.

Locational Signal

Ofgem's open letter highlighted that "TNUoS charges should send efficient locational, long-run investment signals." Ofgem also outlined that one of the design constraints for the modification is that "it should retain the regional/locational differentials in charges and between technology types."

A Workgroup member suggested that locational signals were less relevant in the context of CP2030 and NESO's new mandate to undertake strategic spatial system planning.

[2] The 5-year forecast and 10-year projection can be found on the NESO website: Transmission Network Use of System (TNUoS) Charges | National Energy System Operator

Ofgem representative highlighted during Workgroup meeting 5 that the role of locational signals in the context of strategic planning is uncertain and is being discussed with DESNZ colleagues.

Cost reflectivity

The Workgroup discussed what constituted 'appropriate' limits on the tariffs that should be applied.

One Workgroup member argued that because Ofgem had intervened in the market, then it was reasonable to conclude that the code framework had not or was not capable of delivering an outcome that is aligned with their objectives in relation to delivery of CP2030. Ofgem did not provide detailed instruction to the working group on what was deemed appropriate and because the working group was being asked to progress an urgent modification, there was not a lot of time to determine what was intended as an 'appropriate' limit on the tariffs. Therefore, the Workgroup member suggested that the Workgroup should present Ofgem with a broad range of limits to ensure that Ofgem wasn't artificially constrained when making its determination.

Main Themes of Discussion

a. A view was that even the current levels in the 5 years forecast (Years 1-5) were too high and not cost reflective because of defects in the TNUoS model. This would have the knock-on effect of impacting the commercial arrangement (auctions bids) and ultimately effect on customer bills. A suggestion was to cap at a level below the highest values contained in the 5-year forecast (years 1-5).

b. The second view was that the data assumptions under-pinning the NESO 10-year projection (years 5-10) contain a significant degree of uncertainty based on forecast generation and infrastructure build. If the outturn build matched the assumption the level of TNUoS was likely to be correct. The projection was based on a set of "bold" assumptions and are indicative of the upper range of TNUoS. If parties assume these are the average (as opposed to a high outlier) this will have a destabilizing effect on the generation investment market and a knock-on effect on the commercial arrangement (auction bids) and ultimately effect on customer bills. It's the perception of higher prices that is the issue, therefore it would be right to cap TNUoS such that the levels in the 5-year forecast are allowed to occur but the levels in the 10-year projections are moderated. Thereby capping TNUoS at the levels contained in the forecast.

c. The third view was that TNUoS is a cost reflective signal, and it is right to ensure that all generation is subject to a cost reflective location signal. Fundamentally the further away from the centre of demand generation is located the greater the infrastructure build that is required to connect the generations. Reflecting the

incremental cost of investment in the transmission system (TNUoS cost) allows generators to build this into the business model along with other factors (land cost, wind /solar resource, cost of capital etc) when developing a project. Projects with highest overall cost/benefit will likely have the lowest consumer benefit. The effect of introducing a cap and floor on TNUoS will ultimately increase consumer bills as the locational effect of the siting decision of generation an ultimately the build cost is not reflected correctly back to the generator.

d. The fourth view related to the effect on the generator adjustment tariff. With the current demand-weighted reference node, the collection from the TNUoS model is effectively capped at €2.5 /MWh. Both the forecast (Year 1-5) and projection (years 6-10) show a significant reduction in the generator adjustment tariff that is applied to all generation to keep the average generation charges within the €2.5/MWh limit. The imposition of a cap will lead to a reduction in the adjustment tariff applied to all generation. This has an effect on "uncapped generation zones" where generation that may have been anticipating these negative charges in commercial arrangement (capacity market bids) will have this expected benefit removed.

Terms of Reference (ToR) interaction

The Workgroup discussed interactions between CMP444 and CMP442, it was noted that CMP442 would be added to the interactions for CMP444, but it would be made clear that they are able to proceed separately as agreed by CUSC Panel members. This will be made clear within the body of the report and will be updated should anything change as the Modifications develop.

During discussions it was agreed that ToR (g) should be updated to include consideration of what TNUoS data set should be used for the modification.

It was also agreed to add an additional ToR to consider any additional protection required for generators who make investment decisions while the cap and floor is in place.

The Terms of Reference were presented to November Panel 2024 and the changes were approved and updated.

Interaction with REMA

The Workgroup noted that to most appropriately devise a method to set a cap and a floor, information on the impact of this modification on CfD prices and the deliverability of Clean Power 2030 should be accessible to the Workgroup. The Workgroup called for this information to be shared by DESNZ and Ofgem, but at the time of this Consultation such information has not been supplied.

The Ofgem representative re-iterated that the intention behind raising this modification was chiefly to reduce uncertainty ahead of the next CfD Allocation Round. However, workgroup members noted that, by definition, in order to decrease investment uncertainty this modification cannot work in isolation from REMA and other strands of reform.

Consideration of other options

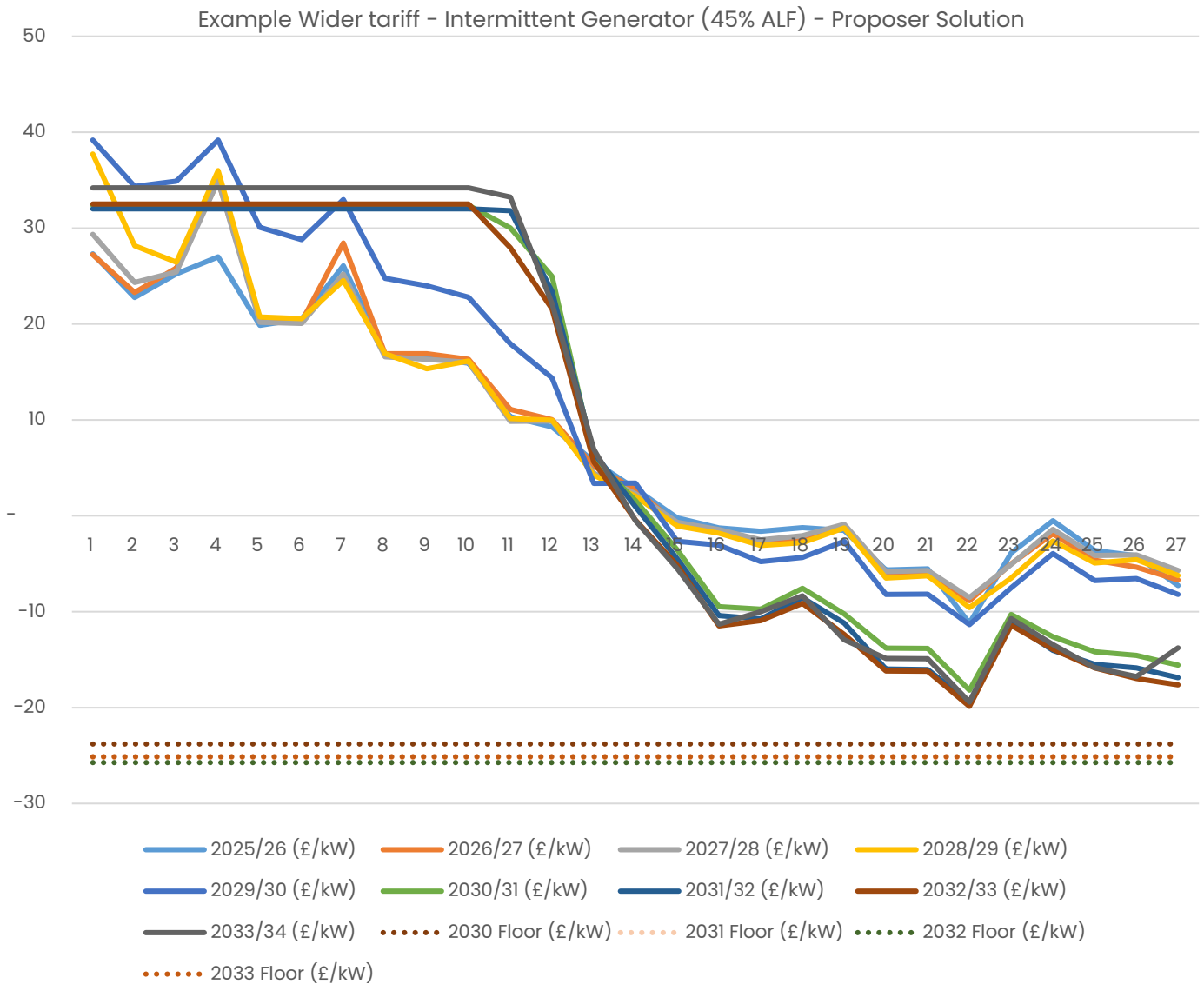
At the time of publication of this report, the Workgroup was debating the following Alternative Requests (Annex 6):

Alternative Request 1 (Northland Power)

This Alternative Solution notes that the Original Solution:

- Means the 10-year projections materialise post 2030 for all Southern generators because the floor is too low; and
- Consequently, fails to prevent consumers subsidising increasingly negative charges in the Southern zones

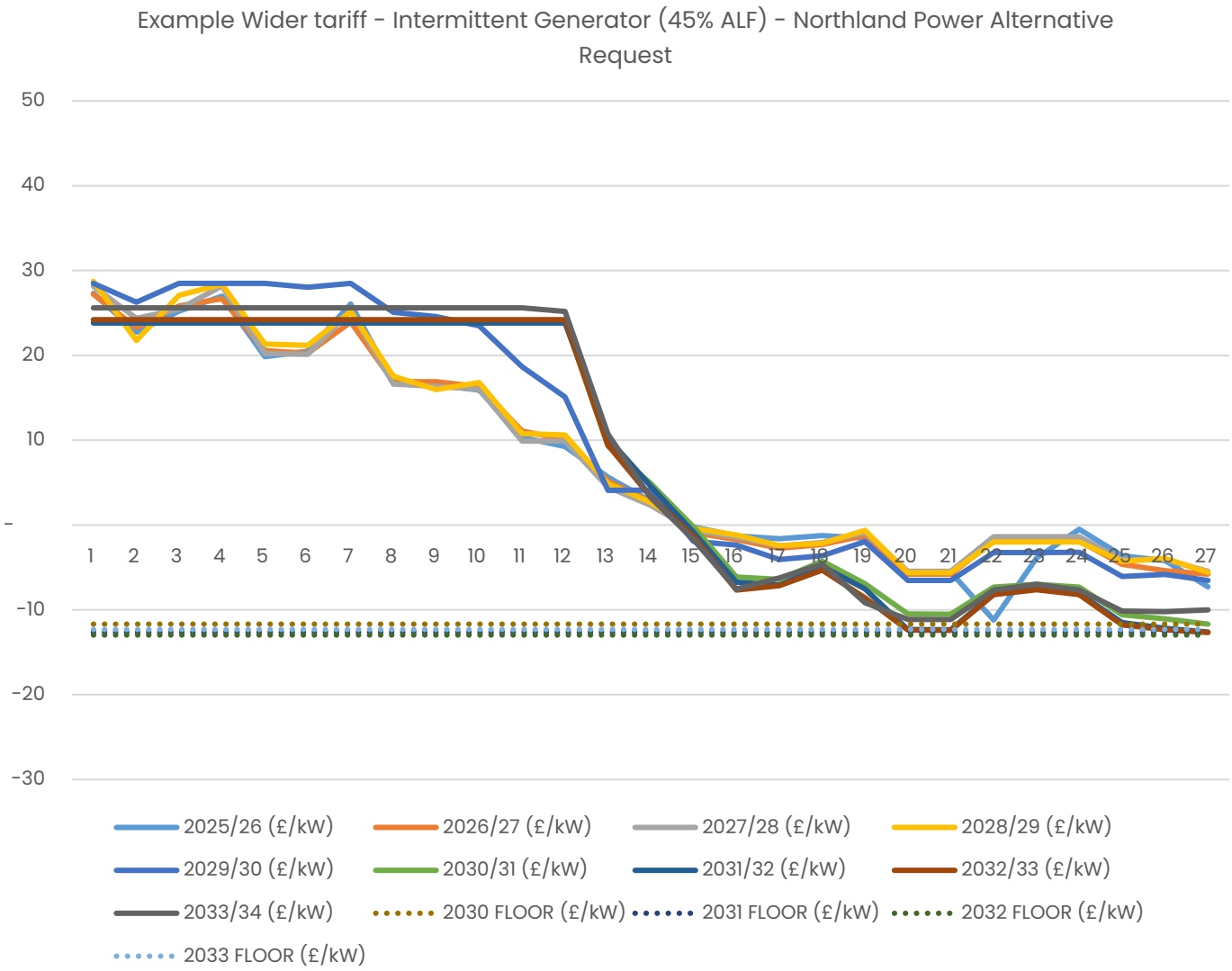
The chart below shows the output Wider Tariff under the Original Solution. The dashed lines are the Wider Tariffs that result from the floor of the individual Tariffs and the adjustment tariff.



The Original Solution doesn't affect Wider Tariff charges paid by Southern generators post 2030.

This Alternative Request seeks to address this fault in the Original Solution by setting the initial cap and floor for the 2025/2026 year for each of the tariffs as the 90th and 10th percentile, respectively, of the NESO 5-year view TNUoS tariff publication published in April 2024. Other elements of the calculation are the same as the Original Solution.

This Alternative Proposal leads to an effective floor in Southern zones as well as a cap in the Northern zones, as seen in the chart below:



Alternative Request 2 (SSE)

This proposed Alternative introduces a different way of calculating the various caps when compared to the original by introducing a 2 Tier Zonal Grouping as well as 1 SD as opposed to a decile. This is designed to maintain locational differences whilst reducing the risk of TNUoS rising significantly higher than expected for all Users as opposed to just those on the extremities.

Alternative Request 3 (SSE)

This proposed Alternative introduces a different way of calculating the various caps when compared to the original by introducing a 2 Tier Zonal Grouping as well as 1 SD as opposed to a decile. This is designed to maintain locational differences whilst reducing the risk of TNUoS rising significantly higher than expected for all Users as opposed to just those on

the extremities. Instead of redistributing revenues and tariff risk amongst various Generators, NESO will set TNUoS tariffs assuming Generation Tariffs from a revenue perspective are not capped. This maintains the Adjustment Factor at the level it would have been set at before the cap. NESO can then determine how best to collect the Allowed Revenue. Treat as under recovery or increase the Demand Residual.

Alternative Request 4 (Bluefloat Nadara) -Withdrawn

Alternative Request 5 (Bluefloat Nadara)

This Alternative introduces relevant policy principles to guide a decision as to what levels of cap & floor are appropriate to enable the delivery of Clean Power 2030. Accordingly, it applies 60% and 40% percentiles to the mean of the 2024 5-year TNUoS forecast on the basis that these levels result in the best outcome that addresses the outlined policy defects.
This proposed Alternative adopts similar statistical mechanisms previously discussed in Workgroup meetings, uses the same input dataset as the Original Solution, but in addition:

- Introduces additional policy context to guide an appropriate level of cap-and-floor
- Applies the context to a range of different statistical models

Alternative Request 6 (BayWa r.e.)

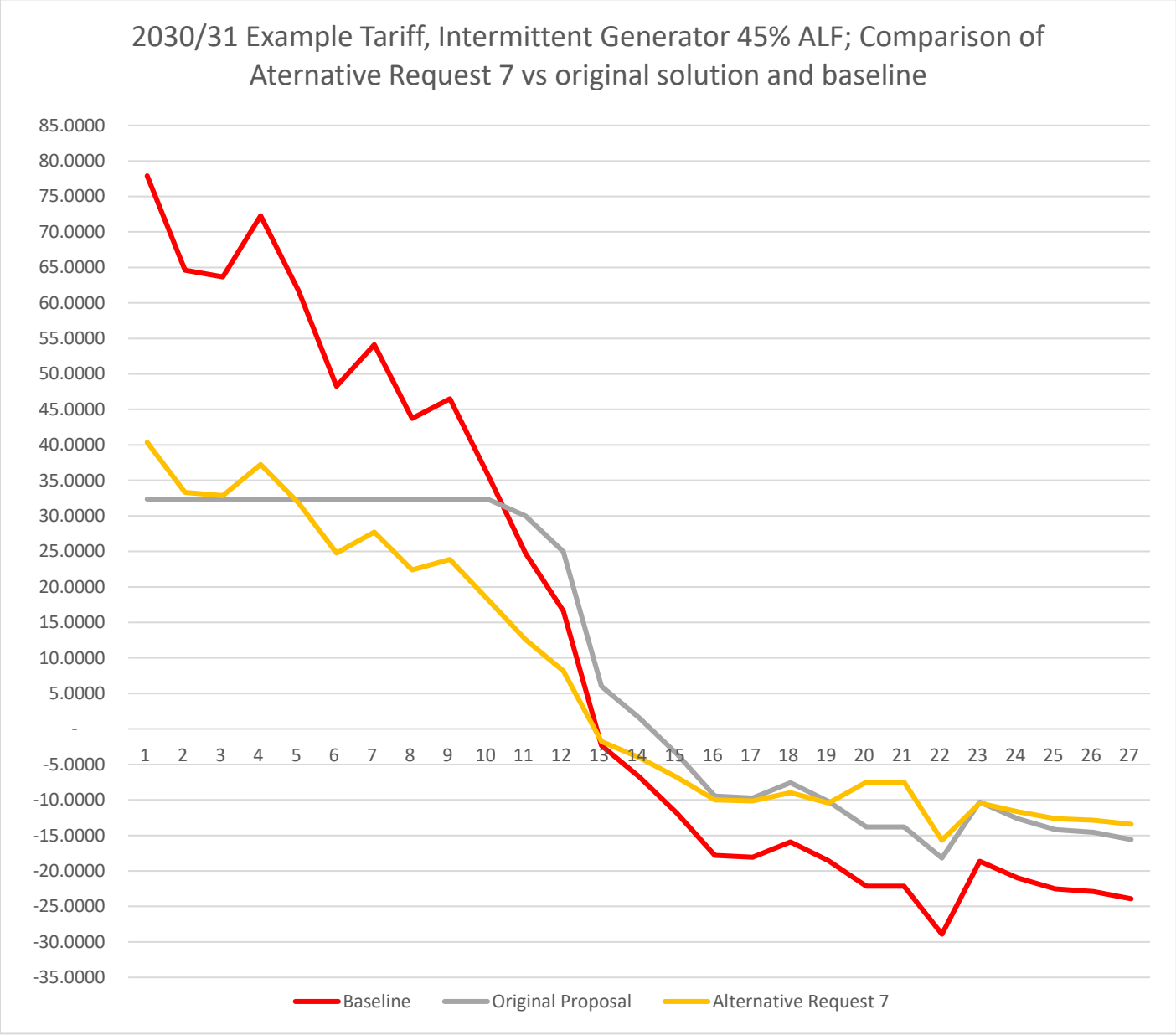
The calculation of the cap and floor as per the Original Solution uses data representing financial years up to and including 2028/29. The difference from this Alternative to the Original Solution is that forecast data for 2029/30 is not used.

This Alternative Request flags concerns noted in the Ofgem letter around the potential impact to charges from large-scale infrastructure investments that are required to decarbonise the electricity system, notably towards the end of this decade, and submits that these concerns will be better addressed if the solution omits the final forecast year of NESO's suggested input dataset for the purposes of calculating any cap or floor.

Alternative Request 7 (NESO)

Introduces an alternative methodology for applying the cap and floor to try and better preserve the locational signals in northern GB. The proposal is looking to set a maximum range between the highest and lowest TNUoS zone and an explicit maximum cap for each of the Peak Security, Year-Round Shared and Year-Round Not Shared tariff components. The maximum range and cap for each component will be the highest of the first four years of the latest NESO 5-year view of TNUoS publication.

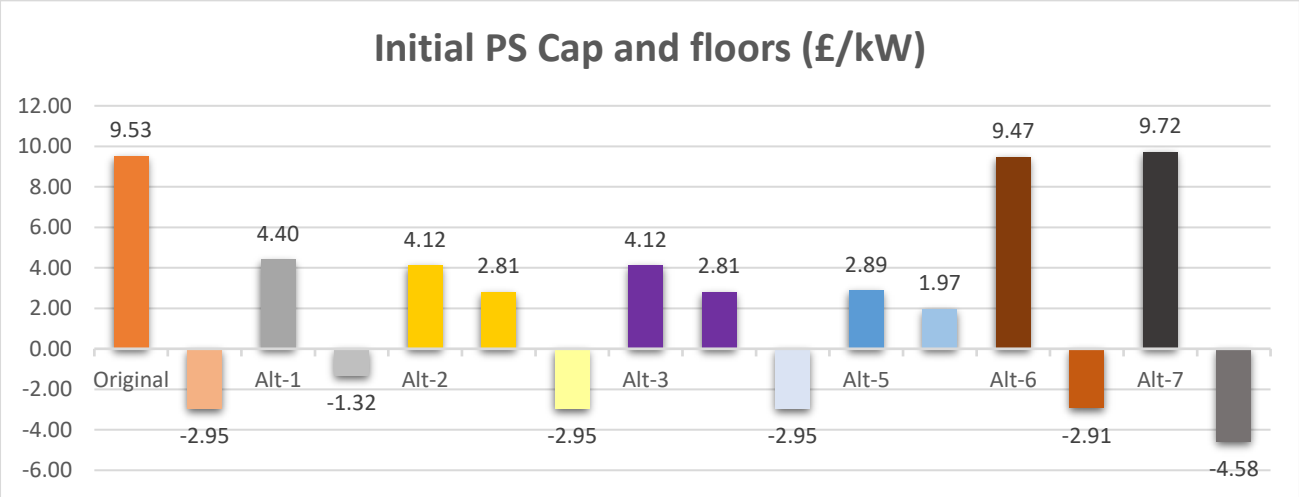
These would be applied in two steps: Firstly, if the range of tariffs is greater than the defined maximum when setting tariffs, the tariff in each zone is multiplied by a scaling factor to bring the range back within the maximum. This scales all tariffs by a factor between 0 and 1. Then if the highest zone is still higher than the absolute cap, then a £/kW adjustment would be applied equally to all zones to bring the highest back down to the level of the absolute cap while still maintaining the difference between zones.

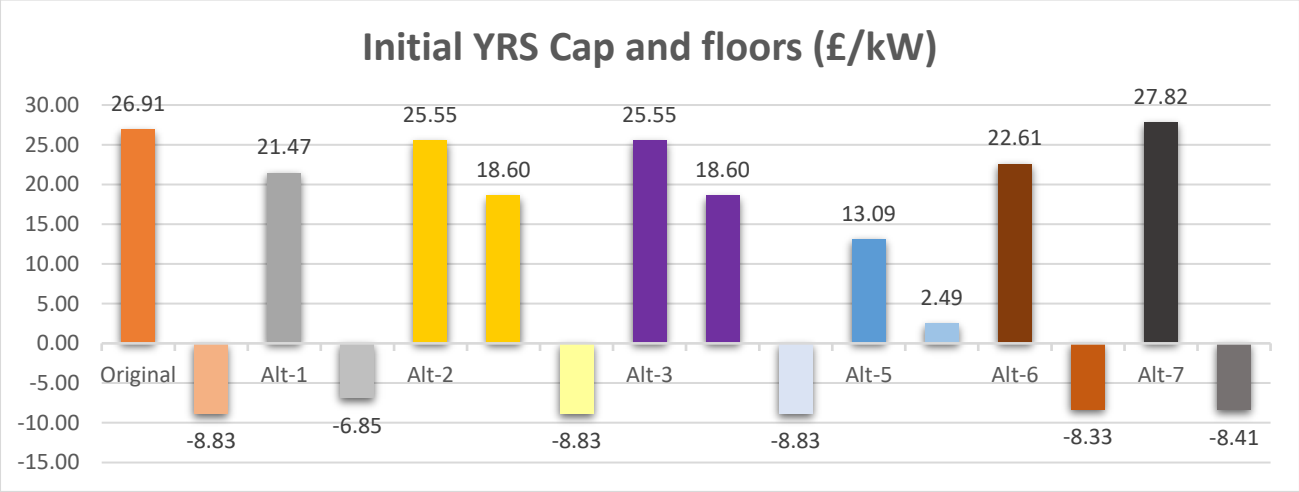


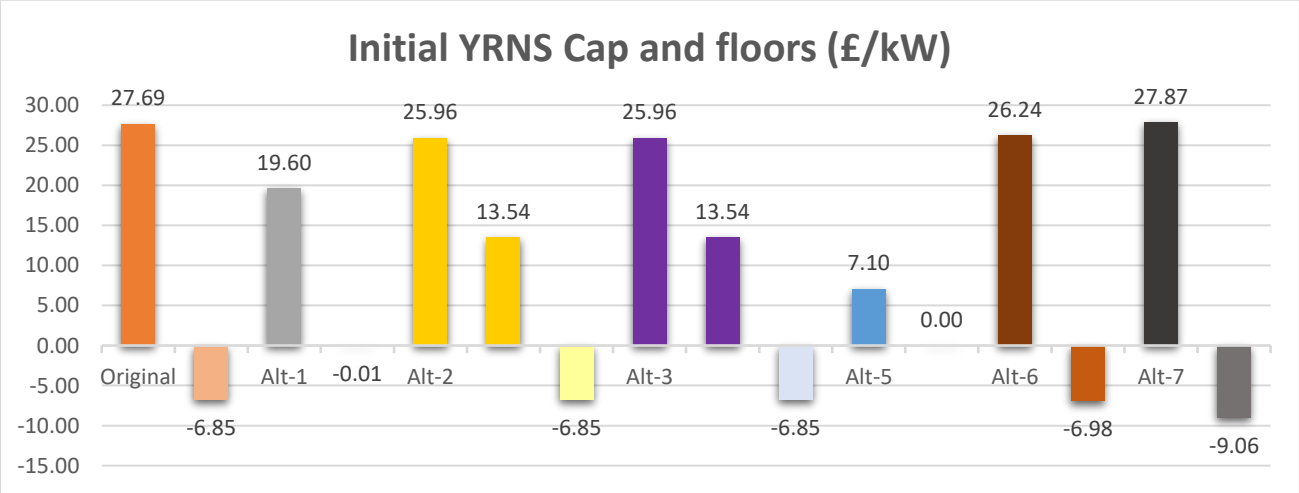
Comparison of the cap and floor levels (Original and Alternative Requests) (Annex 7)

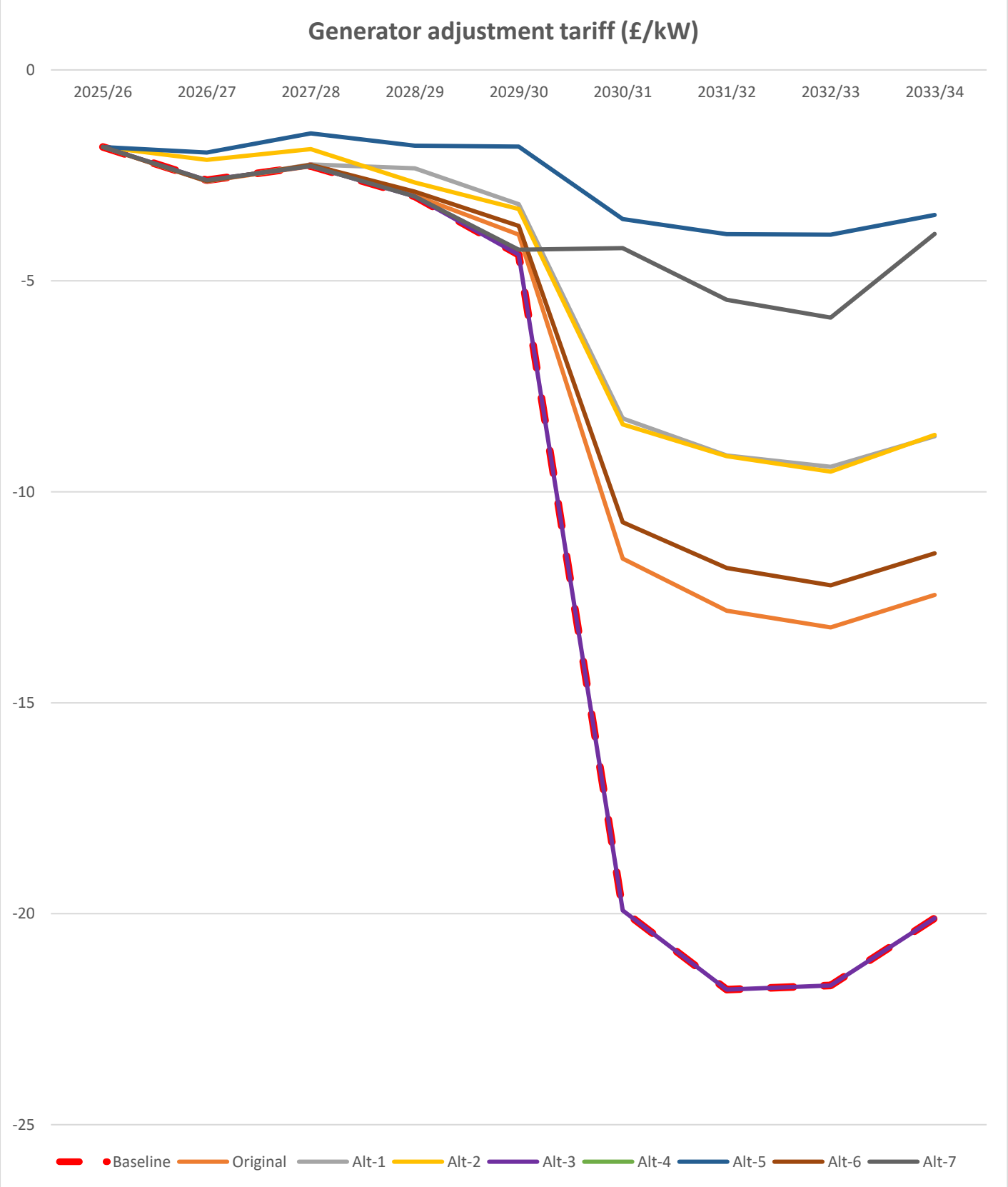
Comparison of the cap and floor levels and the impact on tariffs are demonstrated in the charts below for the baseline, original solution, and all alternative request received to

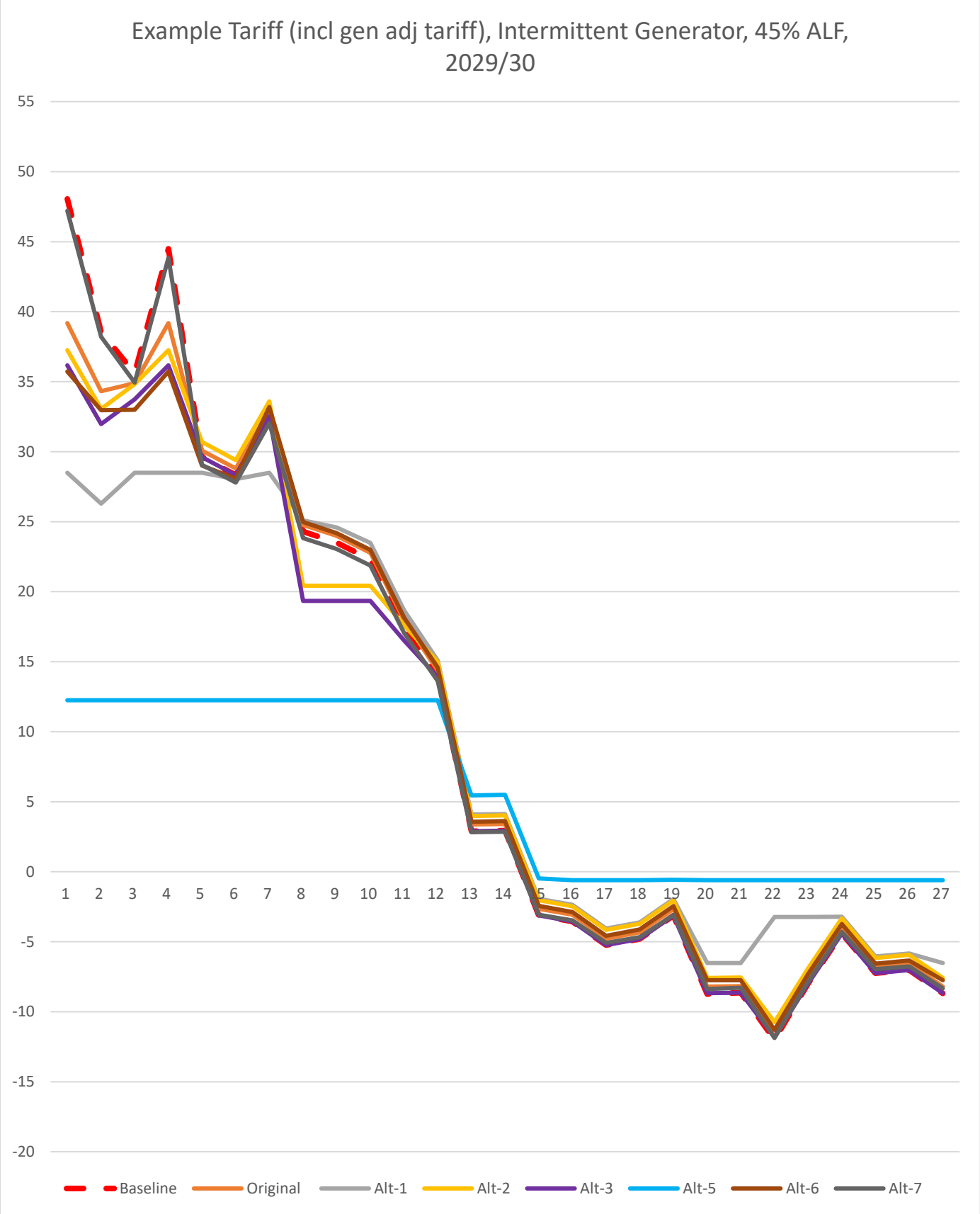
date. Please note, alternatives two and three have two caps for each of the tariff components; The first applies to TNUoS zones 1-7; and the second applies to TNUoS zones 8-12:

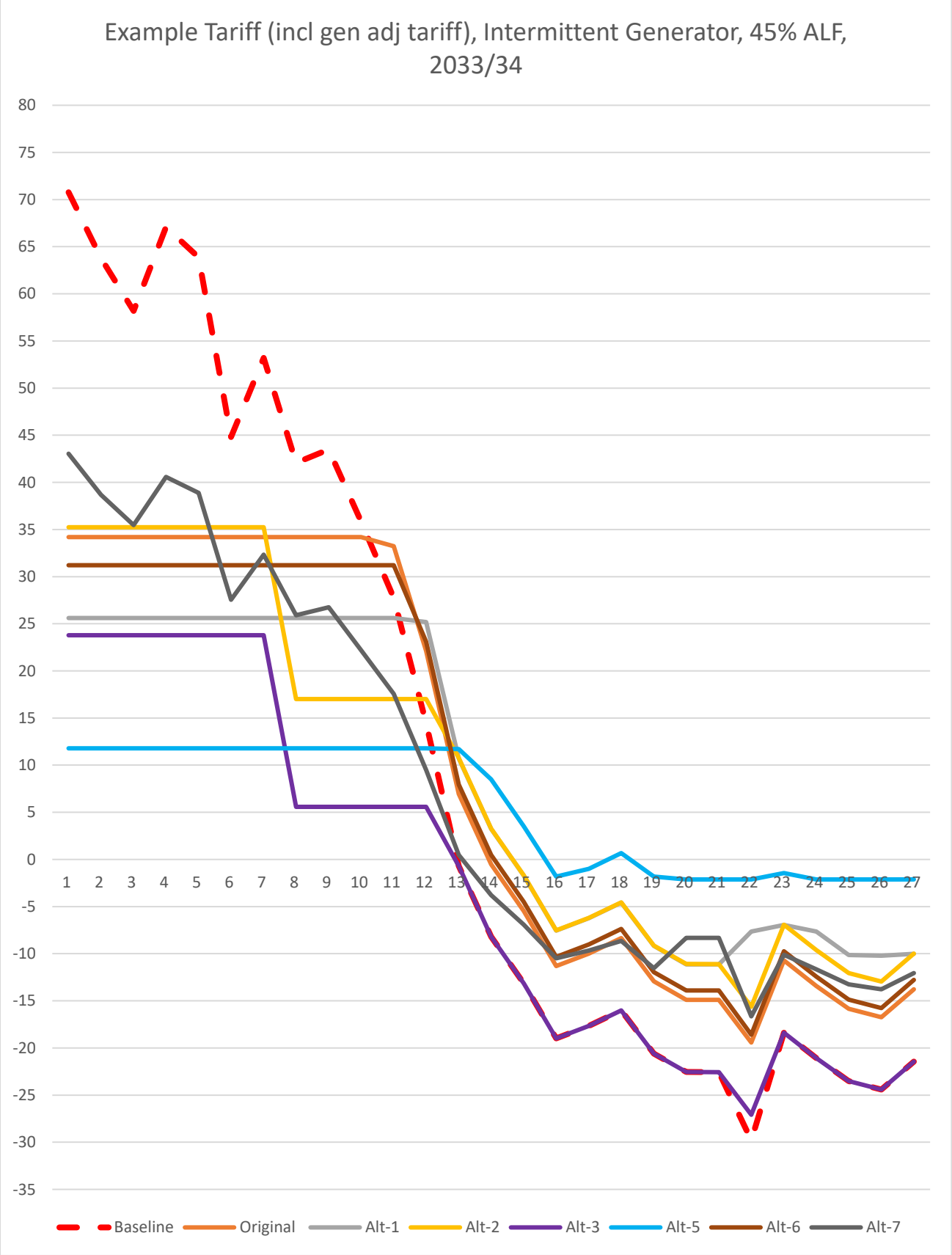







Generator adjustment tariff (£/kW)
0
-5
-10
-15
-20
-25
2025/26
2026/27
2027/28
2028/29
2029/30
2030/31
2031/32
2032/33
2033/34
Baseline
Original
Alt-1
Alt-2
Alt-3
Alt-4
Alt-5
Alt-6
Alt-7


Example Tariff (incl gen adj tariff), Intermittent Generator, 45% ALF, 2029/30
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
Baseline
Original
Alt-1
Alt-2
Alt-3
Alt-5
Alt-6
Alt-7


Example Tariff (incl gen adj tariff), Intermittent Generator, 45% ALF, 2033/34
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
Baseline
Original
Alt-1
Alt-2
Alt-3
Alt-5
Alt-6
Alt-7

Draft legal text

The draft legal text for this change can be found in Annex 4.

What is the impact of this change?

Proposer's assessment against CUSC Charging Objectives	
Relevant Objective	Identified impact
(a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;	Positive This change would facilitate enhanced competition in generation, by decreasing uncertainty for projects, allowing them to proceed at competitive costs, whether CfD-supported or not
(b) That compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard licence condition C11 requirements of a connect and manage connection);	Neutral The change is structured so that cost-reflective locational signals are largely preserved, though slightly blunted should the caps and/or floors be hit
(c) That, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses and the ISOP business*;	Neutral No relevant developments apply

(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency **; and	Neutral Compliance with EC 838/2010 is maintained through the generation adjustment tariff. The chosen solution avoids undue discrimination between technology types, which EC 2019/943 prohibits.
(e) Promoting efficiency in the implementation and administration of the system charging methodology.	Neutral Tariff setting process ahead of each charging year is only made a little more complicated than baseline. The extra complexity and work are at this stage believed to be modest.
* See Electricity System Operator Licence (Electricity System Operator: Direction and Licence Terms and Conditions)	
**The Electricity Regulation referred to in objective (d) is Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) as it has effect immediately before IP completion day as read with the modifications set out in the SI 2020/1006.	

Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories	
Stakeholder / consumer benefit categories	Identified impact
Improved safety and reliability of the system	Neutral The change is neutral, though given that most new developments are zero carbon (nuclear or renewables, plus facilitating storage), we contend that by allowing developers to proceed undeterred by excess TNUoS uncertainty the impact/risk of cata-

	strophic and irreversible climate change is ameliorated/mitigated; this should enhance security of supply.
Lower bills than would otherwise be the case	Positive By allowing developers of storage and generation to proceed undeterred by excess TNUoS uncertainty, with a lower risk premium in relation to TNUoS (whether CFD supported generation or not), the cost passed through to consumers through wholesale and balancing costs should reduce. Recovery of any revenue shortfall due to the cap/floor through the generator adjustment tariff will reduce the non-cost reflective credits to generators, thereby reducing the burden this place on the TDR (Transmission Demand Residual) standing charges
Benefits for society as a whole	Positive By allowing developers to proceed undeterred by excess TNUoS uncertainty, given that most new developments are zero carbon (nuclear or renewables, plus facilitating storage), we contend that the impact/risk of catastrophic and irreversible climate is ameliorated/mitigated; this would benefit society as a whole.
Reduced environmental damage	Positive By allowing developers to proceed undeterred by excess TNUoS uncertainty, given that most new developments are zero carbon (nuclear or renewables, plus facilitating storage), we contend that the impact/risk of catastrophic and irreversible climate is ameliorated/mitigated; this would reduce environmental damage.
Improved quality of service	Neutral

Standard Workgroup consultation question: Do you believe that CMP444 Original proposal better facilitates the Applicable Objectives?

When will this change take place?

Implementation date

1 April 2026

Date decision required by

Summer 2025, to allow developers to factor in the impact of the change ahead of the likely CfD AR7 bid submission window.

Implementation approach

Will require minor changes to NESO TNUoS tariff setting process to apply the cap/floor to necessary tariff components in the DCLF (Direct Current Load Flow) ICRP (Investment Cost Related Pricing) Transport & Tariff Model.

Interactions

☐Grid Code	☐BSC	☐STC	☐SQSS
☐European Network Codes	☐ EBR Article 18 T&Cs[3]	☐Other modifications	☐Other

There are no interactions with other in flight mods in terms of implementation as the single GB cap/floor allows for changes to the underlying methodology to calculate the wider charge, however modifications that impact the level of TNUoS charges, such as CMP423 (Generation Weighted Reference Node) or CMP315 (TNUoS: Review of the expansion constant and the elements of the transmission system charged for)/CMP375 (Enduring Expansion Constant and Expansion.

[3] If the modification has an impact on Article 18 T&Cs, it will need to follow the process set out in Article 18 of the Electricity Balancing Regulation (EBR – EU Regulation 2017/2195) – the main aspect of this is that the modification will need to be consulted on for 1 month in the Code Administrator Consultation phase. N.B. This will also satisfy the requirements of the NCER process.

How to respond

Standard Workgroup consultation questions

1. Do you believe that the Original Proposal better facilitate the Applicable Objectives?
2. Do you support the proposed implementation approach?
3. Do you have any other comments?
4. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?
5. Does the draft legal text satisfy the intent of the modification?
6. Do you agree with the Workgroup's assessment that the modification does/does not impact the Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Code?

Specific Workgroup consultation questions

7. Do you believe the cap and floor should have an end date? If so, how long or what is the appropriate trigger.
8. What level of certainty would be required from this modification to best support investment decisions? Please justify any additional protection required (for example grandfathering rights or any other levels of protection).
9. Does the Original proposal with no specific end date provide Developers with sufficient confidence to make an investment decision? Please justify.
10. Does the Original Proposal and any of the Alternatives raised achieve the objectives of the Ofgem letter?
11. Do you agree with the data set proposed for the calculation of the cap and floor? If not, what data set would you propose? What is your view on the use of NESO's 5-year forecast of April 2024?
12. Please provide your assessment of the Original Solution and the 7 Alternative Requests discussed by the Workgroup (additionally, please indicate your preferred solution with associated justification):

Alternative Request	Assessment
Original Solution	
Alternative Request 1	
Alternative Request 2	
Alternative Request 3	
Alternative Request 4	

Alternative Request 5	
Alternative Request 6	
Alternative Request 7	

The Workgroup is seeking the views of CUSC Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions above.

Please send your response to cusc.team@uk.nationalenergyso.com using the response pro-forma which can be found on the CMP444 modification page.

In accordance with Governance Rules if you wish to raise a Workgroup Consultation Alternative Request, please fill in the form which you can find at the above link.

If you wish to submit a confidential response, mark the relevant box on your consultation proforma. Confidential responses will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel, Workgroup or the industry and may therefore not influence the debate to the same extent as a non-confidential response.

Acronyms, key terms and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
CfD	Contracts for Difference
CMP	CUSC Modification Proposal
CUSC	Connection and Use of System Code
DCLF	Direct Current Load Flow
EBR	Electricity Balancing Regulation
ICRP	Investment Cost Related Pricing
PS	Peak Security
STC	System Operator Transmission Owner Code
SQSS	Security and Quality of Supply Standards

TDR	Transmission Demand Residual
TNUoS	Transmission Network Use of System
T&Cs	Terms and Conditions
YRNS	Year-round not shared
YRS	Year-round shared

Reference material

- https://www.ofgem.gov.uk/sites/default/files/2024-09/Open_letter_TNUoS_intervention_vF_Publications.pdf
- https://www.neso.energy/industry-information/codes/cusc/modifications/cmp419-generation-zoning-methodology-review
- https://www.neso.energy/document/317561/download

Annexes

Annex	Information
Annex 1	CMP444 Proposal form
Annex 2	CMP444 Terms of reference
Annex 3	CMP444 Urgency letters
Annex 4	CMP444 Legal Text
Annex 5	CMP444 Alternative Requests Form
Annex 6	CMP444 Alternative Requests Proposal Forms
Annex 7	CMP444 Alternative Comparison Spreadsheet