Update on the Transmission Constraint Licence Condition call for input

Publication date:	16 May 2025
Team:	Electricity Security and Market Management
Email:	WholesaleMarketPolicy@ofgem.gov.uk

Any enquiries related to the text of this publication should be sent to Ofgem at:

10 South Colonnade, Canary Wharf, London, E14 4PU.

This publication is available at www.ofgem.gov.uk. Any enquiries regarding the use and re-use of this information resource should be sent to: psi@nationalarchives.gsi.gov.uk

Contents

Executive summary

Transmission constraints are any limits on the ability of the electricity transmission system, or any part of it, to transmit the power supplied onto the transmission system to where it is needed.

When a transmission constraint emerges, some generators in particular areas can enjoy considerable market power. The standard licence condition 20A of the Generation Licence, also known as the Transmission Constraint Licence Condition (TCLC), was introduced in 2012 to protect consumers from licensed generators' heightened market power in these situations. It does so by prohibiting licensees from obtaining an excessive benefit in relation to bids submitted in the Balancing Mechanism (BM) during transmission constraint periods.

In February 2024 we closed a call for input asking stakeholders for their views on ways to ensure the TCLC is as effective as possible at keeping balancing cost down in an evolving electricity market. To stimulate the conversation the call for input listed five initial options for extending or modifying the TCLC, although stakeholder suggestions were welcome on any other changes that could be made.

The five options for consideration were:

1. Expanding the TCLC to balancing services used by the electricity system operator to manage constraints other than the BM
2. Expanding the TCLC to offers
3. Expanding the TCLC to bids to import or offers to export
4. Replacing the requirements of the TCLC with an explicit cap on generators' prices or profits in constraint periods
5. Extending the requirements of the TCLC to providers of balancing services other than licensed electricity generators.

We received 24 responses, mainly from generation licensees and storage providers, as well as from system operator NESO.

We have reviewed and carefully considered all responses, liaised further with some of the respondents and conducted our own internal analysis. This document summarises stakeholder feedback and provides an update on our thinking.

Overall, the majority of stakeholders were not supportive of the five options we presented for initial thinking, although most options highlighted a clear difference between the views of generators and those of system operator NESO.

Most stakeholders asked us to clarify the case for change and noted that these options might introduce complexity and distortions to the market. Some stakeholders also mentioned potential negative impacts on price and investment signals, innovation and security of supply. On the other hand, NESO highlighted how expanding the TCLC would ensure consumers' protections extend to some economically relevant segments of the balancing services market, such as BM offers or balancing actions on cross-border interconnectors. We thank stakeholders for all the engagement so far.

We are not proposing to formally consult further on any of the proposed options at this stage. However, there are a number of areas where we will continue to closely monitor the behaviour of market participants to ensure electricity markets are effective and benefit consumers.

With regard to options 1 and 2, we have identified an area of concern around the market power that voltage constraints can give licensed generators in certain locations of the network. Initial evidence we have collected has shown some instances of potential pricing strategies that may be aimed at gaining an excessive benefit. While we are not formally consulting on implementing options 1 and 2 at this stage, we will continue to monitor the market carefully and assess the impact on consumers, and we will take further action if these strategies persist or our market monitoring reveals other concerns.

For options 3-5, we did not find a significant risk of market power exploitation during transmission constraint periods at present. However, we also observe that technologies and market environments are evolving, and that some of the areas covered by these options are being reviewed by the government as part of its Review of Electricity Market Arrangements programme. These include the role of storage assets and cross-border interconnectors, and how they respond to price signals under a national or zonal bidding setup.

For these reasons, we have decided not to formally consult on options 3-5 at this stage, but we will continue to monitor market developments in light of potential reforms to the market design.

We will continue to closely monitor compliance with the TCLC and other licence conditions guiding the behaviour of market participants in the BM. We will continue to ensure these market rules remain fit for purpose, also considering potential future changes to electricity market arrangements as well as the government's Clean Power 2030 targets.

1. Introduction

On 7 December 2023 we published a call for input on whether Licence Condition 20A of the Generation Licence, also known as the Transmission Constraint Licence Condition, was fit for the current and future landscape of the GB electricity market.

The call for input closed on 2 February 2024. With this publication, we aim to update stakeholders on our priorities and latest thinking following our analysis of the responses to the call for input.

Background

1.1 Transmission constraints are any limits on the ability of the electricity transmission system, or any part of it, to transmit the power supplied onto the transmission system to where it is needed.

1.2 Where transmission constraints occur, electricity generators in particular areas can hold a position of market power. Electricity system operator NESO might have limited options to manage the constraint other than reaching an agreement with the owners of those specific units to alter their planned output.

1.3 The standard licence condition 20A of the Generation Licence, also known as the Transmission Constraint Licence Condition (TCLC), exists to protect against this market power. By prohibiting licensees from obtaining an excessive benefit in relation to bids submitted in the Balancing Mechanism (BM) during transmission constraint periods, it helps to keep down balancing costs and, ultimately, consumers' bills.

1.4 The licence condition was introduced in 2012 and last updated in 2017. As the expansion of renewable generation has outpaced grid reinforcement, the volume of balancing actions accepted for the purposes of constraint management – and its associated cost – has increased significantly in recent years (see figure 1).

1.5 Expanding the existing transmission network is key to reducing constraint costs in the long term and projects are underway to strengthen the grid over the next decade.

1.6 Amid these developments, it is important we ensure the protections for consumers against the market power arising during transmission constraints under the current system remain adequate.

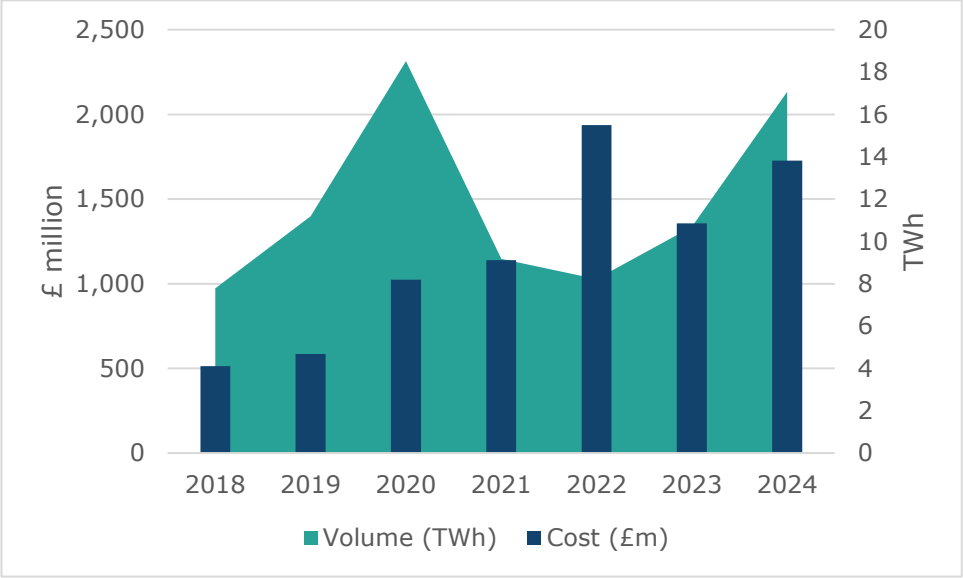

Figure 1 – Total volume and cost of constraint management actions, 2018-2024. (Source: NESO)

The call for input

1.7 On 7 December 2023, a consultation on updating the TCLC guidance[1] and a call for input[2] on further changes to the TCLC were published on our website.

1.8 The proposed revisions to the guidance were intended to bring it up to date and provide generators with a greater level of detail in relation to our expectations regarding compliance with the TCLC. Following the consultation, the updated guidance was published on our website on 10 June 2024.[3]

1.9 The call for input invited views from industry participants on whether any changes were required to the TCLC to ensure that it is as effective as possible in keeping down balancing costs.

1.10 To generate discussion, the call for input set out five potential areas where the TCLC could be expanded or modified:

- Expanding the TCLC to balancing services used by the electricity system operator to manage constraints other than the BM
- Expanding the TCLC to offers
- Expanding the TCLC to bids to import or offers to export

[1] Transmission Constraint Licence Condition guidance consultation - December 2023 | Ofgem
[2] Transmission Constraint Licence Condition call for input - December 2023 | Ofgem
[3] Transmission Constraint Licence Condition guidance - decision | Ofgem

- Replacing the requirements of the TCLC with an explicit cap on generators' prices or profits in constraint periods
- Extending the requirements of the TCLC to providers of balancing services other than licensed electricity generators.

1.11 We showcased our early thinking to stimulate discussion with stakeholders. We welcomed views from stakeholders on each of these options, as well as suggestions for any other changes that could be made with the aim of minimising constraint costs.

1.12 The call for input closed on 2 February 2024. A total of 24 responses were received, in most cases from generation licensees. We have used stakeholder feedback to assess the case for change to explore whether any of the options described above required a more detailed consultation.

1.13 The responses received have been considered within the context of wider policy reform, such as the government's Review of Electricity Market Arrangements (REMA) programme. This included considering whether a case existed for making changes in advance of broader market design changes resulting from REMA or whether any changes should be subsumed within that package of reforms.

1.14 This update details our latest thinking on the potential expansion of the TCLC. We have collated as much evidence as possible as part of this process. In some cases, we have isolated some areas of present concern and other areas where concerns may arise in the future.

2. Option 1: Expanding the TCLC to balancing services used by the electricity system operator to manage constraints other than the BM

The responses to the call for input received on option 1 were mostly not supportive. Stakeholders wanted clarification on the case for change.

However, our engagement with stakeholders confirmed a trend of rising market power in some balancing services outside of the Balancing Mechanism, in particular Schedule 7A bilateral trades, when managing certain system constraints, such as voltage constraints.

We have decided not to consult on this option at this stage, but to keep monitoring market behaviour in this area.

Summary of the option

2.1 In its current form, the Transmission Constraint Licence Condition (TCLC) has the effect of placing a restriction on the prices of bids that are submitted by licensed generators in the Balancing Mechanism (BM) in transmission constraint periods.

2.2 While the BM remains the primary tool to manage transmission constraints, system operator NESO also uses other balancing services. Two of the main alternatives to the BM are signing bilateral contracts with market participants ahead of BM timescales under Schedule 7A rules of the Grid Trade Master Agreement and using intertrip services.

2.3 Schedule 7A trades are agreed by NESO with a specific BM unit to either increase or decrease their output to a specific volume for an agreed price and time.[4]

2.4 Intertrip agreements are also bilateral in nature and negotiated by NESO to have the option to automatically instruct a reduction or disconnection of electricity generation when a system fault occurs.[5]

2.5 Non-BM balancing actions made up around 20% of NESO's total spend in recent years and as much as 34% in 2022, as shown in figure 2.

[4] Trading | ESO (nationalgrideso.com)
[5] Intertrips | ESO (nationalgrideso.com)

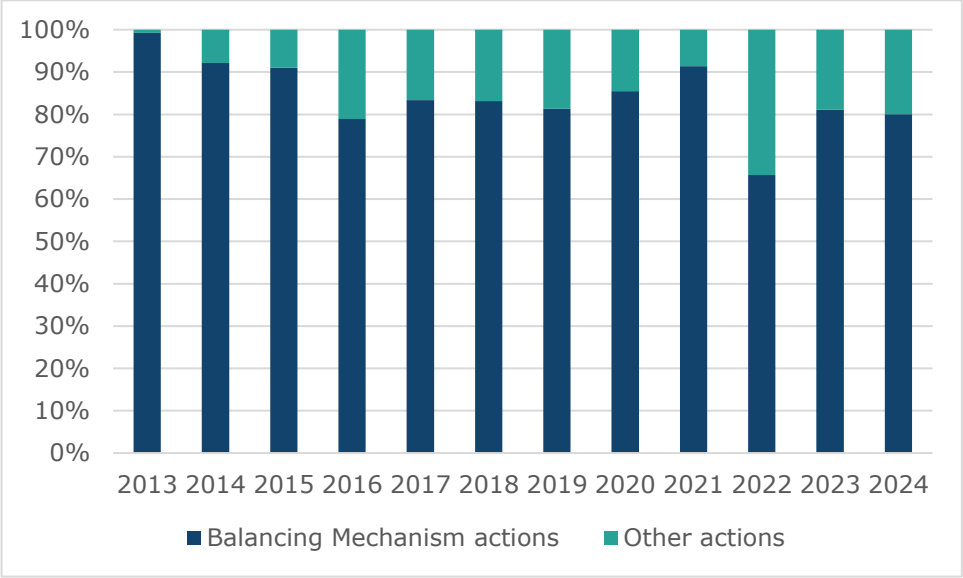

Figure 2 - Percentage split of spend on balancing actions taken by NESO by type, 2013-H1 2024. (Source: NESO)

2.6 In the call for input we aimed to collect stakeholders' views on the advantages and disadvantages of expanding the TCLC to prohibit licensees from obtaining an excessive benefit from reductions in generation procured by NESO using balancing services other than BM bids.

2.7 If implemented alongside an expansion of the TCLC to cover offers, this option could also capture any offers in relation to increases in generation procured by NESO outside of the BM.

Summary of the responses received

2.8 We received 22 responses to this option. Of these, 15 were not supportive of changing the current rules, six were neutral and one was supportive.

2.9 **Lack of a case for change.** A lack of a case for change was the joint most common response received. Respondents said that there was no clear rationale for a change, with no specific issue being identified and a lack of evidence or analysis to justify intervention, and that more clarity was needed on which services would be included in an expanded TCLC. One respondent questioned the highlighted periods of significant costs included in the call for input, ie between 2020 and 2022, and the validity and appropriateness of using this as a benchmark because of the significant market volatility at that time. Additionally, a respondent questioned the lack of comparators available to determine an excessive benefit when very specific locational issues are resolved through these services.

2.10 **The current level of competition is sufficient.** This was the joint most common response. Responses mentioned the competitively procured and commercially negotiated nature of these alternatives to the BM, as well as pointing to falling prices in some ancillary service markets – in particular those entered by batteries – as evidence of strong competition. One respondent suggested that expanding the TCLC would hinder the development of new balancing services and markets, especially those at an early stage.

2.11 **Complexity.** Respondents raised three issues around the complexity of extending the TCLC to balancing services outside of the BM: (i) the need to explicitly define balancing services and which ones to extend the TCLC to; (ii) the difficulty of pricing without constraint visibility; and (iii) how to address the many ancillary service providers who are not licensed generators and therefore not subject to the TCLC, as it was believed that unlicensed generators could have the potential to benefit from a competitive advantage. A further two points related to enforcement were also raised: (iv) the practicality of defining "excessive benefit" for a range of different services; (v) the complexity of assessing and comparing potential breaches over a range of services.

2.12 **Constraint visibility.** Issues with pricing amid limited constraint visibility were another common response, with mixed opinions. It was highlighted that both intertrip and Schedule 7A services are procured ahead of time, potentially before a constraint develops. An alternative view was that knowledge of a constraint existence was not required, as constraints often become "established" over time and so NESO should be able to forecast and take action ahead of time. Some respondents lamented a lack of public visibility of bilateral balancing and intertrip contracts, with a suggestion that a transparent monitoring process would be necessary should the TCLC be applied to these services.

2.13 **Fairness.** Respondents highlighted that an expanded TCLC would not apply to unlicensed generators, interconnectors and potentially the Demand Flexibility Service,[6] and that this was unfair to licensed generators.

2.14 **New markets and encouraging innovation.** Some respondents proposed alternative approaches to managing constraints, such as encouraging innovation and developing new markets. This could include solutions for intertrip services, reactive power and stability market programmes. One such proposal was to create a new auction for assets to offer NESO a reduction of output over a

[6] Demand Flexibility Service (DFS) | National Energy System Operator

longer period than the BM's half-hourly horizon, when a constraint is expected to be active for some time. The exclusion of BM assets from NESO's Local Constraint Market[7] at the B6 boundary was also highlighted, with the suggestion that any design and procurement strategy should provide alternative options for BM assets. Respondents maintained that expanding the TCLC to other balancing services could have a detrimental impact on market-based solutions because it would limit the economic signals needed to drive and encourage investment, particularly in early-stage market development.

2.15 **High skip rates for battery assets in the BM.** It was suggested that the issue of battery assets experiencing high skip rates[8] in the BM should be addressed before increasing regulation on generators.

2.16 **Need for consumer protection.** A supportive response was received from NESO, who argued that trading via non-BM ancillary services, and in particular through Schedule 7A rules, represents a significant expenditure to consumers. NESO noted that Schedule 7A trade prices are typically benchmarked against expected offers in the BM, but consumers are not protected from the risk of excessive profits through this benchmarking as the TCLC does not cover BM offers. However, NESO also highlighted that the cost base for non-BM services can be different from that of BM actions, so appropriate supporting guidance would be needed on how to price compliantly in case of an expansion of the TCLC.

2.17 **Other comments.** Further comments from respondents included one who felt that extending the TCLC to Schedule 7A trades and intertrip services could have the unintended consequence of reducing liquidity in the constraint market. This would be caused by traders with interconnector capacity, who predominantly enter these trades, withdrawing from the market. A different respondent raised the risk of the BM becoming less transparent as a potential unintended outcome of the proposal. Another respondent said that the proposal was a logical step to consider if there was evidence of market power for these services, while another noted that the TCLC was limited in scope as it does not extend to the distribution network.

[7] Local Constraint Market | National Energy System Operator
[8] A skip occurs when NESO makes a non-economic dispatch decision in the BM. The skip rate refers to the frequency at which certain actions or assets are bypassed or skipped during operational decisions. For more information: Skip rates | National Energy System Operator

Our view

2.18 We would like to thank stakeholders for sharing their views on this topic. The feedback received stressed the importance of adopting a proportionate approach when regulating balancing markets beyond the BM. We recognise that some of these markets are still developing and that any intervention, even on more established markets such as the Schedule 7A trades, needs to account for differences in the cost base compared with BM prices.

2.19 However, the responses received, further stakeholder engagement and internal analyses highlighted some areas of concern around at least one of the non-BM balancing services: Schedule 7A trades.

2.20 Schedule 7A trades have grown to become one of NESO's key tools for maintaining voltage levels in recent years, particularly in overnight periods.[9]

2.21 Rising voltage constraint management costs are linked to dropping levels of synchronous electricity production from nuclear, gas- and coal-fired plants, which would accommodate NESO's voltage needs as a by-product of their generation.

2.22 As the generation mix is less synchronous, NESO resorts to using purpose-built reactive compensation assets – shunt reactors – owned by transmission owners or to switch on idle dispatchable power generation assets through either the BM or Schedule 7A deals. An increase in outages affecting shunt reactors have increased NESO's reliance on dispatchable generators in recent years.

2.23 The highly localised nature of voltage constraints means that Schedule 7A trades, which on paper are the outcome of a competitive procurement process and free negotiations between NESO and market participants, increasingly occur in a context of limited choice for NESO. In certain areas and circumstances, the competition is restricted to the point that we are concerned that considerable market power may exist.

2.24 It is important to note that, in the current market setting, Schedule 7A negotiations for generation turn-down during constraints indirectly benefit from the protection of the TCLC. This is because NESO typically accepts Schedule 7A prices when they provide better value than the expected BM bid prices, which are subject to the TCLC during constraint periods.

[9] If voltage is too low the transmission system will become weaker, which can cause loss of power. If voltage is too high the transmission system will overheat, which can result in damaging wires or tripping of equipment and loss of power. Variable voltage can also cause power quality issues and damage to machinery.

2.25 However, this is not the case for Schedule 7A negotiations for increasing generation. Since the TCLC's remit does not extend to BM offer prices, Schedule 7A prices are benchmarked against unrestricted BM offers even when grid constraints significantly increase market participants' power.

2.26 Therefore, at present Schedule 7A negotiations can occur in a context of restricted competition and enhanced market power, without the TCLC offering any indirect protections to consumers for generation turn-up deals.

2.27 The initial evidence we have collected suggests that, in the case of Schedule 7A trades for overnight generation turn-up in presence of a localised voltage constraint, this might be leading to excessive benefit outside of the TCLC.

2.28 We noted stakeholder feedback that expanding the TCLC could affect market price signals with a potential knock-on effect on investments, innovation and security of supply in the context of the government's Clean Power 2030 Action Plan.[10]

2.29 We will continue to monitor market participants' behaviour when pricing their services for voltage constraint management. If concerns in this area persist or grow, we will consider launching a consultation on how to best address the issue.

[10] Clean Power 2030 Action Plan - GOV.UK

3. Option 2: Expanding the TCLC to offers

The responses to the call for input received on option 2 were mostly not supportive. Several stakeholders asked for clarification on the case for change and expressed concern that this option might end up stifling scarcity price signals, as grid constraints can be difficult to forecast.

However, we also received evidence of pricing behaviour in the Balancing Mechanism that might be leading to excessive benefit in presence of certain types of highly localised grid constraints, such as overnight voltage constraints.

We have decided not to consult on this option at this stage, but to keep monitoring market behaviour in this area.

Summary of the option

3.1 At present, the Transmission Constraint Licence Condition (TCLC) places a restriction on the bid prices which can be submitted by licensees in the Balancing Mechanism (BM) in transmission constraint periods, but not on offer prices.

3.2 However, offers to increase the output of generators are essential for system operator NESO to manage grid bottlenecks and represent a substantial share of NESO's BM costs, which are ultimately paid for by consumers. NESO spent approximately £660m on BM offers to manage transmission constraints in 2023, or 76% of its total BM expenditure related to constraint management.

3.3 Some of these constraints do not require NESO to increase generation in a specific area of the grid to make up for reduced flows from a constrained area, which means NESO can pick BM offers purely based on economic merit order.

3.4 On the other hand, some constraints, such as voltage constraints, do require NESO to increase the generation of a single generator or a particular group of generators connected to a specific part of the network.

3.5 Voltage constraint actions have historically accounted for a small portion of constraint costs. However, their localised nature means that generators in certain locations can benefit from market power. The costs associated with synchronising dispatchable generators to manage voltage constraints have increased considerably since 2022, as shown in figure 3.

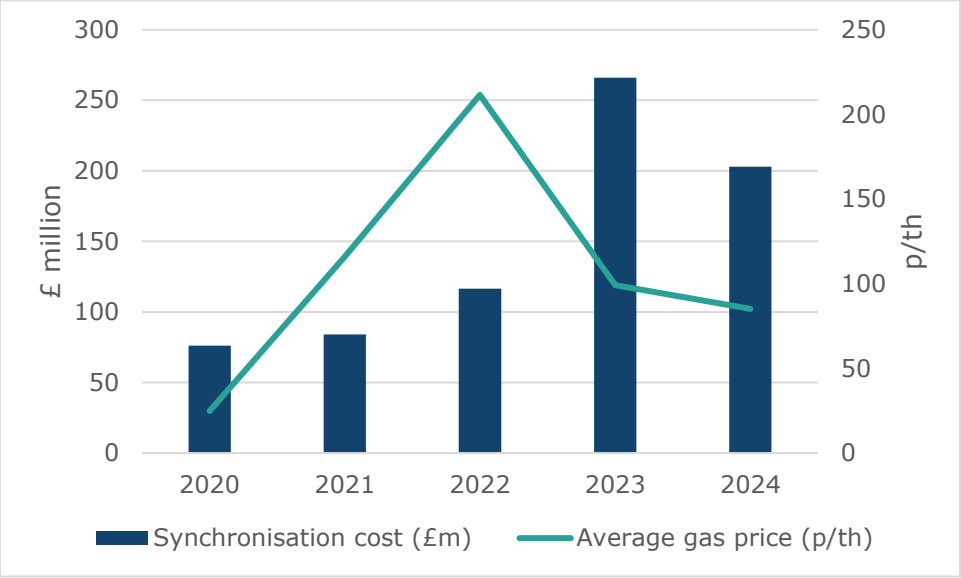

Figure 3 – Cost of synchronising dispatchable units to manage voltage constraints, 2020-2024. (Source: NESO; ICIS)

3.6 Option 2 in the call for input aimed to gather views on the advantages and disadvantages of expanding the TCLC to prohibit licensees from obtaining an excessive benefit from BM offers during transmission constraint periods, in the same way that generators are currently prohibited from doing so from BM bids. This could be limited to offers in the BM or could extend to increases in generation procured under balancing services more broadly, in conjunction with option 1.

Summary of the responses received

3.7 We received 23 responses to this option. Only one respondent was supportive of changes in this area, 17 were not supportive and five were neutral.

3.8 **Lack of a case for change.** The most common response was for us to demonstrate through research, evidence and analysis that abuse of market power was occurring. Respondents felt that the problem the proposal was attempting to solve was unclear. One respondent said that consumers should not have to pay for the consequences of insufficient planning of the transmission network.

3.9 **Curbing of free-market principles.** The second most common response were comments related to the curbing of free-market principles. Respondents underlined the importance of scarcity price signals, with some responses quoting

our 2016 letter on their importance for the wholesale market.[11] Stakeholders said that the Inflexible Offers Licence Condition (IOLC) also restricts BM offer prices in certain circumstances and already suppresses scarcity price signals. It was suggested that increasing regulation or market intervention would introduce market distortions and undermine competition. One respondent said expanding participation in the BM and developing new markets for inertia and voltage would be a preferable market-based approach. Two final issues regarding uncertainty for generators were raised. Firstly, that in regulating offers we would effectively force generators to turn on or deliver additional output for marginal returns. Secondly, that the uncertainty of knowing when a constraint is live – and therefore when the TCLC applies – could result in generators opting out of the BM when they can.

3.10 **Use of existing regulation.** Some respondents suggested that enforcing existing regulations to address constraint costs was preferable to expanding the TCLC. A specific comment was that as the IOLC covers offer prices, a revision of the IOLC would be more appropriate than expanding the TCLC to cover offers. Another comment highlighted that article 5 of the Regulation on Wholesale Energy Market Integrity and Transparency has a requirement not to artificially inflate prices, making it an alternative option to prevent market participants from manipulating markets or prices. A final response suggested competition law could achieve all the objectives outlined in the call for input.

3.11 **Potential impact on investments in battery storage.** Most of the responses received argued that regulating offer prices via the TCLC has the potential to impact revenue and therefore undermine the business and investment case for flexible technologies that can alleviate constraints and help achieve net-zero carbon emission targets.

3.12 **Lack of visibility on constraints.** Several responses highlighted a lack of transparency in relation to constraints, with one suggesting that publishing more information on voltage, inertia and short-circuit issues could allow market participants to respond and develop projects to remove market power from traditional providers. Further responses suggested that a party may not know a constraint exists, which would make it difficult to enforce an expanded TCLC without improved data on constraints. A final view was that this proposal would remove any clarity around geographical areas caught in constraints, as it would neutralise the price effects of such constraints. This respondent also said that

[11] Open letter on scarcity pricing and conduct in the wholesale energy market | Ofgem

the TCLC guidance significantly expanded the definition of transmission constraints, and an extension of the TCLC to offers would likely end up dampening all BM offer prices because of the lack on data on the timing and location of constraints.

3.13 **Knock-on effects on other services and markets.** Some respondents pointed to the potential knock-on effects that expanding the TCLC to offers would have on other services and markets, specifically the Capacity Market (CM). The common view was that battery storage operators can set the marginal price in the CM and the result of this change would be that they submit higher prices at the CM auctions. This, in turn, would increase the clearing price for all accepted bids, thus offsetting any savings that consumers would achieve through an expansion of the TCLC. One respondent suggested that the price formation in the wholesale market could also be impacted, while another mentioned the risk of higher prices appearing in the ancillary services market.

3.14 **Potential impact on investments in new generation.** Several respondents suggested that option 2 could have an impact on investments in new generation. One respondent said that applying the TCLC to offer prices would reduce the incentive to build new power plants in import-constrained areas where there is a lack of supply.[12] Another suggested that it would seriously disincentivise investment in flexible assets by effectively preventing generators from making meaningful profit in the BM. A third response asked us to consider how the market could evolve in the future and if a changing capacity mix and the potential for a more responsive demand base could mitigate any market power risk. Other comments related to this change being unfair to licensed generators, which would find themselves at a commercial disadvantage compared with the rest of the market. It was noted that the opportunity to exploit constraints may increase in the future and so be available to a wider set of market participants, not just licensed generators.

3.15 **Complexity.** One response said that bid and offer prices for storage assets need to allow for the costs of building and operating a facility as well as allowing for risk in a volatile market, which means that assessing offer prices would be complex. This was similar to another response that highlighted the need to consider costs and opportunities relevant to each technology. Another

[12] An import constraint is when the energy demand cannot be met by localised generation and the flow on the circuits into that area is limited by the capacity of the circuits. An export constraint is when the generation in an area is not offset by the localised demand and the flow on the circuits out of the area is limited by the capacity of the circuits.

respondent said that assets know when they are operating during export constraints but not when there is an import constraint, which would complicate the enforcement of an expanded TCLC.

3.16 **Supportive comments.** NESO was supportive of expanding the TCLC to offers. The system operator highlighted the significant expenditure on system-flagged[13] offers to manage import constraints, which represented 82% of the total direct spend on constraint management in 2023. It argued that the price premium that system-flagged BM actions hold over unflagged actions illustrates the existence of market power for offers submitted during constraints. Most importantly, NESO showed unit-level evidence of aggressive price responsiveness ahead of incipient constraints, in particular overnight voltage constraints, which supports the notion that localised constraints can have a high degree of predictability to market participants.

Our view

3.17 We would like to thank the respondents for their valuable contributions on this topic. The feedback we received covered several important points of debate, from the importance of scarcity price signals to the role that existing regulation can play, as well as concerns about the current data on constraint visibility and the potential consequences for investments in new generation.

3.18 We recognise that any intervention on the area of BM offer prices can have wide-ranging consequences for the energy market and therefore needs to be carefully calibrated and proportionate to the aim of ensuring both short-term and long-term outcomes are in consumers' best interests.

3.19 Similarly to option 1 (see paragraph 2.28), we noted stakeholder feedback on the importance of market price signals to drive investments, innovation and ensure security of supply, particularly in the context of the government's Clean Power 2030 targets. Any expansion of the TCLC would need to take these issues into account.

3.20 The purpose of the existing TCLC is not to place a de facto cap on the profits that generators can obtain in the BM. Rather, it is to protect against the specific situation where limits of the transmission system give rise to either individual

[13] These are BM bids or offers flagged by NESO to indicate that they were accepted for system management reasons, which will generally relate to a transmission constraint period. For NESO's latest System Management Action Flagging Methodology statement see: SMAF-20111223-FINAL

generators, or groups of generators in certain areas, having market power in relation to reductions in generation in one or more settlement periods.

3.21 Recognising the concerns raised in stakeholder feedback, we consider that, were the TCLC to be expanded to offers, it would only apply to offers submitted in relation to a period of transmission constraint. As with the existing TCLC, it would place restrictions on licensees only where they have localised market power in the BM, rather than where NESO is free to choose from any available power plants to meet system requirements.

3.22 We also acknowledge that in some cases it may be difficult for a generator to anticipate that a transmission constraint period is likely to be in effect when setting its offer prices. However, in other circumstances this may not be the case. For example, overnight voltage constraints are highly localised in nature and occur during predictable system conditions.

3.23 Initial evidence collected as part of the call for input suggests that market participants can forecast overnight voltage constraints with a high degree of confidence in certain areas of the grid. The combination of a localised requirement and ease of forecasting means that some market participants enjoy an enhanced market power that might be detrimental to consumers' interest.

3.24 To avoid placing a de facto cap on offer prices, in considering the scope of any expansion to the TCLC to capture offers we would take into account the areas of most concern for generators exercising their localised market power. As with the existing TCLC, when deciding whether to open an investigation we would expect to take into account whether a generation licensee could reasonably have been expected to anticipate that a transmission constraint period was likely to have been in effect.

3.25 We will continue to monitor market participants' behaviour when pricing their BM offers for voltage constraint management. If concerns in this area persist, we will consider launching a consultation on how to best address the issue.

4. Option 3: Expanding the TCLC to bids to import or offers to export

The responses to the call for input received on option 3 were mostly not supportive. Most stakeholders were concerned that the option could affect investments in storage assets, in particular in the nascent market segment of batteries, and asked for clarification on the case for change.

We have decided not to consult on this proposal at this stage, but we will continue to monitor the market to see if behaviours of concern emerge.

Summary of the option

4.1 At present, the Transmission Constraint Licence Condition (TCLC) places a restriction on the bid prices which can be submitted by licensees in transmission constraint periods only where those bids relate to reductions in generation. That is, the restrictions of the TCLC apply only when a generator is due to export power to the grid.

4.2 The rationale for this is that the TCLC should only apply when a licensee's intended output for a particular generation unit causes or exacerbates a transmission constraint. In doing so, the TCLC ensures that licensees are prevented from benefiting from market power that may arise as a result of a transmission constraint, while ensuring that the Balancing Mechanism (BM) can reward generators that are available to help to resolve a constraint.

4.3 Nevertheless, where constraints exist, even if a generator is not making the constraint worse via its expected level of output it may still benefit from significant market power. To the extent to which generators take advantage of this by submitting expensive prices, this will push up the cost of managing constraints. The nature of the market may mean that barriers exist which prevent other providers from competing effectively for the constraint management services in question.

4.4 Option 3 in the call for input asked stakeholders to consider merits and disadvantages of expanding the TCLC to prohibit licensees from obtaining an excessive benefit on BM bids during transmission constraint periods even when they were not due to export.

4.5 Were the TCLC expanded to include offers (see section 3), it could prohibit licensees from obtaining an excessive benefit in transmission constraint periods

also on BM offers to undo an import of electricity, when neither importing nor exporting, or to increase an export.

Summary of the responses received

4.6 Of the 24 respondents, 20 addressed the third option listed in the call for input. Of these, 16 did not support a change in this area, three were neutral and one was supportive.

4.7 **Knock-on effect on flexible assets.** Over half of the respondents who commented on this option mentioned the potential impact on flexible assets. Firstly, it was felt that this change could materially impact past investment decisions, which would damage investors' confidence and potentially deter investment in battery storage in constrained areas. Secondly, markets for battery assets and innovations such as the release of the Open Balancing Platform (OBP)[14] by NESO need time to develop before addressing any issues that may arise. It was observed that encouraging and maintaining a competitive market should be the focus, while avoiding the risk of dampening price signals for investment in areas where there is a proliferation of generation. Finally, batteries can provide value through their responsiveness to price fluctuations, quickly exporting or importing to help ease constraints rather than compound them. This makes it difficult to calculate what an "excessive" bid price for storage assets is.

4.8 **Lack of case for change.** Multiple respondents said that clarity on the problem, evidence of the issue and a cost-benefit analysis were needed before proceeding any further. Other respondents said they would like guidance and examples of how the TCLC applies to storage and how "excessive benefit" is defined for these technologies. One respondent suggested that this change goes beyond the objectives of the TCLC, potentially targeting situations where a licensee is not causing or exacerbating a constraint. Others felt that any issues would be better addressed by strengthening competition in the BM via monitoring – particularly with the introduction of NESO's OBP – or by using rewards and incentives rather than penalties.

4.9 **Unfair to batteries.** Some responses suggested that this change was potentially unfair to batteries. For example, if a battery is not scheduled to export, a battery called on to import electricity by NESO does not exacerbate

[14] The start of the balancing mechanism revolution | National Energy System Operator

the constraint. It was viewed by some that this proposal would effectively extend the principle of the TCLC to assets that are able to alleviate the problem, not just those which contribute to it.

4.10 **Duplication of the Regulation on Wholesale Energy Market Integrity and Transparency (REMIT).** Respondents highlighted that the existing REMIT legislation could be applied instead of extending the TCLC. One respondent observed that batteries offering prices in the BM but not exporting to the grid could be enforced against using REMIT rules on securing the price of a wholesale energy product at an artificial level. Hence, expanding the scope of the TCLC under this proposal would appear to overlap with REMIT. If this option was explored further, respondents would like greater clarity on the overlapping regulatory obligations.

4.11 **Knock-on effect on other services.** Some respondents raised the potential for this change to impact prices at the Capacity Market auctions. The Capacity Market clearing price might increase to make up for lower value captured in the BM.

4.12 **Fairness.** One respondent commented that a TCLC expansion to cover bids to reduce output below 0MW is necessary to ensure fair competition and optimal consumer outcomes.

4.13 **Complexity.** One respondent highlighted the complexity of working out whether a storage provider's bid is excessive, considering that BM prices depend on multiple assumptions about a market participant's view on the evolution of intraday prices. A second respondent took a similar view that the economics of import technologies are complex, with an expanded TCLC leading to additional complexity of administration and enforcement of the licence condition with no clear offsetting benefit.

Our view

4.14 Storage is expected to play an ever-growing role in the future of an increasingly flexible and decarbonised GB energy system.[15] It is important that regulation keeps up with market developments, taking into account the characteristics of storage assets while ensuring the overall system remains as efficient to operate as possible and beneficial to consumers.

[15] For information on the government's Clean Power 2030 Action Plan, see footnote 12.

4.15 The profitability of storage assets depends on the spread between the price they pay to import electricity from the grid and the price they receive to export electricity to the grid. This allows storage assets to operate at market prices that are unworkable for other types of generators, which do not derive their profits from price spreads and can only operate when market prices are high enough to cover their running costs.

4.16 A storage asset's BM prices provide NESO with the following options:

A. Bids to import electricity from the system when the asset was not planning to import nor export, ie its Final Physical Notification (FPN)[16] was 0MW, or when already importing some volume, ie its FPN was below 0MW
B. Bids to undo or reduce a planned export of electricity to the system, ie its FPN was greater than 0MW
C. Offers to export electricity to the system when the asset was not planning to export nor import, ie its FPN was 0MW, or when already exporting some volume, ie its FPN was above 0MW
D. Offers to undo or reduce a planned import of electricity from the system, ie its FPN was less than 0MW.

4.17 At present, only option B is covered by the TCLC if in presence of a grid constraint. As regards option C, please refer to section 3 for a discussion of the pros and cons entailed.

4.18 With regard to option A, several respondents argued that expanding the TCLC in that direction would unduly restrict bids of storage assets that are providing NESO with an alternative to reducing generators' output during constraints.

4.19 We believe that there is merit in this argument, as NESO should be taking the most cost-effective action in the BM. Therefore, when looking to resolve a system constraint NESO will consider bids to import, ie increase demand, in the same manner as bids to reduce export, ie decrease output. Bid revenues accrued by storage in these instances could serve as a market signal for investors to build assets that can help absorb excess generation where needed.

4.20 One of the risks of option A is that a storage asset might seek to take advantage of its flexibility and export electricity in a constrained area after NESO accepted its bid to absorb excess electricity.

[16] A Final Physical Notification is the expected level of electricity import or export for a specific BM unit during a 30-minute settlement period. BM units are required to submit their FPNs to NESO one hour before delivery.

4.21 For example, if in a constraint period NESO accepted a heavily negative BM bid of a battery to import electricity from a 0MW FPN, the asset could make a profit selling the same volume on the intraday market in a subsequent period even if selling at negative prices. This would lead to the battery exporting electricity in the constrained area and could force NESO to accept further BM bids from the asset to prevent it from adding unnecessary electricity to the grid, potentially for several settlement periods in a row.

4.22 It is important to note that such cycling behaviour is already captured by the existing TCLC as far as the prices of bids submitted to reduce generation in subsequent periods are concerned. As detailed in our TCLC guidance, our assessment of whether a provider's bid prices were excessive would consider – among other factors – any additional revenues or avoided costs resulting from the bid acceptance, including the greater potential to export in future periods.

4.23 As regards option D, we have spotted instances of concerning behaviour by some storage assets cycling their imports and exports of electricity in areas where transmission constraints limit the amount of electricity that can be imported in an area facing a shortage of generation.

4.24 For instance, a battery may seek to import electricity from the grid at market prices if it anticipates exporting to the grid at a suitably higher price later on. If such import occurs in an area with an undersupply of generation relative to demand because of a transmission constraint, NESO may have little choice but to reduce that unit's import by accepting its BM offers. This pattern may be repeated for several consecutive settlement periods as the unit seeks to charge the asset.

4.25 This behaviour mirrors that of a generation asset bidding in the BM while generating in a constrained, oversupplied area. However, unlike bids, BM offers to undo imports of electricity from the grid in a constrained undersupplied area are not covered by the current TCLC.

4.26 At present, the number of these occurrences and the relative size of the assets are such that they have had a limited impact on system operability and consumers' economic welfare. Nevertheless, we believe that market and infrastructural developments, especially in south England, could result in higher frequency and financial materiality of these events under the current market design.

4.27 For these reasons, our position is to keep monitoring the market behaviours of storage assets, in particular around BM offers to undo electricity imports from

the system (option D). We will not consult on this option at this stage. If concerns in this area persist or grow, we will consider launching a consultation on how to best address the issue.

5. Option 4: Replacing the requirements of the TCLC with an explicit cap on generators' prices or profits in constraint periods

Almost all responses to the call for input received on option 4 were not supportive. Stakeholders believed that both implementing and enforcing an explicit cap on BM prices or profits in constraint periods would be too complex, while expressing concern that it would mark too much of a departure from the current market design. Some respondents also flagged the risk that this change would lead to price clustering behaviours in the Balancing Mechanism and other unintended consequences.

We have decided not to consult on this option at this stage, but to continue to monitor market developments in this area.

Summary of the option

5.1 The current Transmission Constraint Licence Condition (TCLC) prohibits generators from obtaining an "excessive benefit" on bids in the Balancing Mechanism (BM) during transmission constraint periods.

5.2 While we publish guidance providing details of our approach to assessing whether a bid price is "excessive", excessiveness is not fully defined in advance and instead considered on a case-by-case basis.

5.3 Option 4 of our call for input asked stakeholders for views on introducing explicit caps on BM prices submitted or profits achieved while operating in a transmission constraint period. These could set out the maximum permissible BM bid or offer prices during transmission constraints, or a cap on the mark-up that generators can charge compared with their short-run marginal costs. The price controls could in principle be set at different levels for different technology types and vary dynamically with certain key cost drivers.

5.4 International examples exist where the amount that market participants can charge in transmission constraint periods are regulated in this way.[17] This approach could provide greater certainty to the market about what prices would not be acceptable. On the other hand, it would be administratively more complex than the existing licence condition and potentially reduce its flexibility to changing market conditions.

[17] See pp.41-42 in Assessment of Locational Wholesale Pricing for GB (ofgem.gov.uk).

Summary of the responses received

5.5 We received 21 responses on this option, 20 of which did not support an explicit cap on prices or profits during constraint periods. One respondent was neutral about the change.

5.6 **Complexity.** Of the 21 respondents who commented on this option, 18 raised issues of complexity of setting and monitoring an explicit cap. Respondents asked who would be responsible for setting the cap and how often it would be reviewed. It was observed that if the cap was regularly reviewed, this would create uncertainty for generators. Conversely, the need for flexibility and the ability to adjust the cap quickly if energy prices were to rise suddenly as seen in 2022 was also recognised. If the market is volatile the associated risk for participants could justify high prices, but respondents questioned how any price or profit cap would account for such volatility. This raised another key difficulty in the eyes of the respondents – the need to accurately and reliably forecast bid and offer caps in advance. It was argued that this would need to consider generator classes and be at half-hourly increments. However, legislating for all acceptable pricing methodologies was seen as extremely difficult without introducing market risks, as the costs and profit margins of individual units range widely. Finally, enforcement was also seen as constituting a complex administrative burden for both the regulator and BM participants. Clarity on compliance would be required.

5.7 **Curbs on free market.** Respondents described the option as going against the economic principles of scarcity pricing in free and competitive markets. The dampening of price signals could impact both investment and competition. Another respondent felt that the potential departure from the current market design and the principle of scarcity pricing fits more within the scope of the government's Review of the Electricity Market Arrangements (REMA) programme than a licence condition update.

5.8 **Unfair to flexible assets.** Many respondents felt that this change would be unfair to flexible assets. They derive their revenues from infrequent but highly priced balancing services operating a model of arbitrage, ie buying energy cheaply and selling it when the price rises. A cap could mean that the higher associated costs with operating infrequently would not be reflected in flexible assets' pricing. The lack of storage-specific support schemes and the design of the Capacity Market with respect to limited-duration storage were also raised.

5.9 **Knock-on impact on investment.** Respondents highlighted that investment in flexible assets could be impacted if a price cap was implemented. It was suggested that the proposal could result in an increase in constraint costs because of slowing investments in storage assets.

5.10 **Unfair to constrained parties.** Respondents suggested that if generators behind a constraint were subject to a cap on their pricing or profit, this would put them at a commercial disadvantage to unconstrained parties. It was also noted that during constraints bids and offers may still be taken for reasons other than resolving a constraint. In this case, generators should be able to price at a level that reflects the balance between supply and demand or they would be at a disadvantage to other market participants, distorting the market.

5.11 **Impact on imbalance price.** It was highlighted that the cap could affect the imbalance or cashout price calculation. The BM is based on the principles of a competitive market and provides a pool of bid and offer prices both for energy balancing and system actions. Manipulating the pricing in the market to reduce constraint costs could lead to unintended consequences for imbalance prices.

5.12 **Lack of a case for change.** Several respondents raised the need for evidence of which problem this option would address.

5.13 **Price clustering.** Several respondents mentioned the risk of price clustering as an unintended consequence. This is where generators perceive the cap as a target, resulting in prices submitted to the BM clustering around the cap instead of being reflective of the costs and benefits incurred.

5.14 **Knock-on effect on other services.** Some respondents said that an explicit price cap could have a knock-on effect on other services and markets. If a limit was placed on the BM, generators would look elsewhere to recoup any lost revenue, for example by increasing their bids at the Capacity Market auctions.

Our view

5.15 The responses received gave a clear message that changing the TCLC in this direction was not supported by generators, storage providers, trade associations nor system operator NESO.

5.16 Some respondents recognised that applying a cap to prices or profits during transmission constraints would in principle provide greater certainty to the market about acceptable pricing levels in the context of the TCLC. However, we agree that a cap would be more complex than the current licence condition from an administrative point of view.

5.17 We also recognise that, although feasible, this intervention would need to consider the risk for unintended consequences, such as the emergence of price clustering behaviours where market participants treat the price cap as a target to achieve.

5.18 We will not formally consult on implementing this option in the context of the TCLC at this stage, but will continue to monitor market behaviours carefully and assess the impact on consumers.

5.19 We recognise that there might be merit in considering the benefits and disadvantages of implementing an explicit price or profit cap in the TCLC under different market designs.

5.20 However, any such broader considerations go beyond the scope of this update on the TCLC and might depend on developments in the government's REMA programme. We will continue to work with government to ensure market arrangements are working effectively, in the interest of consumers.

6. Option 5: Extending the requirements of the TCLC to providers of balancing services other than licensed electricity generators

The responses to the call for input received on option 5 were mixed. Some stakeholders supported the principle of expanding the Transmission Constraint Licence Condition beyond licensed generators, saying that this would level the playing field by removing the advantages of connecting to the distribution network or operating on cross-border interconnectors.

However, other stakeholders asked for a clear case for change, questioned the ability of expanding the licence condition to unlicensed assets, and suggested that existing powers under the Regulation on Wholesale Energy Market Integrity and Transparency and competition law could be used instead.

We have decided not to consult on this option at this stage, but to continue to monitor market developments in this area.

Summary of the option

6.1 At present, the specific requirement not to obtain an excessive benefit on bids in transmission constraint periods exists in the standard conditions of the electricity generation licence.

6.2 However, market participants other than licensed electricity generators also provide services used by system operator NESO to manage transmission constraints and, in certain circumstances, can enjoy market power in much the same way as a licensed generator. This includes smaller licence-exempt generators, market participants offering increases or reductions in output via interconnectors and providers of demand-side flexibility services.

6.3 Option 5 in the call for input asked for stakeholder feedback on the merit of extending the existing requirements under the Transmission Constraint Licence Condition (TCLC) to providers of balancing services other than licensed electricity generators.

Summary of the responses received

6.4 We received 21 responses on this option, five of which were supportive of changing current rules and ten neutral. Six respondents did not support a change in this area.

6.5 **Lack of case for change.** This was the most common response, with a range of related issues including the need for a problem statement and for supporting analysis to determine what the consumer harm is. It was remarked that any analysis should consider if this action would be proportionate to the scale of the risk. Many respondents questioned how small, licence-exempt generators could achieve market power in the Balancing Mechanism (BM), based on the size and scale of their actions during constraint periods. Clarity on the reason for the inclusion of interconnectors was also requested. Finally, some respondents questioned how smaller flexibility providers would effectively be regulated while markets are being expanded to allow for their participation.

6.6 **Creation of a level playing field.** Over half of the responses highlighted the need to increase fairness in the system by ensuring a level regulatory playing field for all market participants involved across the various balancing services. Specific examples included applying the TCLC to all generators, whether licensed or not and irrespective of connection method, unit type or size. It was argued that the TCLC should apply to all parties that have some degree of market power, potentially reducing costs for consumers. It was commented that the existing TCLC requirement should be applied to all forms of flexibility where market power exists, including distribution-connected assets and demand response, as it would be inconsistent to apply any changes to the transmission grid but not to the distribution one. Acting only on the transmission network would end up incentivising connections at distribution level.

6.7 **Use of other regulatory options.** Several respondents flagged that other regulatory options could be used instead of expanding the TCLC. The most mentioned alternative was the Regulation on Wholesale Energy Market Integrity and Transparency (REMIT). One respondent highlighted that market participants across Europe are already familiar with it and that REMIT could for example be used to address any non-compliant actions taken on interconnectors. Another common suggestion was competition law, which could be used against non-compliant unlicensed generators.

6.8 **Practicality of enforcement.** Several respondents were unclear how this change could be implemented or enforced, the opinion being that the TCLC is part of the standard generation licence and therefore cannot directly apply to unlicensed generators.

6.9 **Investor risk.** The risk of deterring investment in new and flexible technologies was raised as an unintended consequence. This would be a result of placing a burdensome restriction on smaller market participants.

6.10 **Increase in competition.** According to NESO, it is increasingly important to ensure fair competition between different balancing services as new markets are developed to increase small non-BM assets' contribution in managing constraints, such as the Local Constraint Market.

6.11 **Improve the BM instead.** Increasing the participation of small-scale aggregated demand-side response in the BM was proposed as an alternative approach to expanding the TCLC. It was suggested that this could be achieved via improvements in the BM and NESO's systems, with the aim of reducing the market power of generators near constraints.

6.12 **Curb excessive market power.** It was highlighted that interconnector trades can represent a very large market segment that is currently not subject to the TCLC. NESO said that in many cases there is no alternative to interconnector trades, which leads to potential excessive benefits when trying to access a significant proportion of the interconnector volume available.

6.13 **Immature markets.** It was noted that some of the markets potentially impacted by this change are immature and in need of space to grow. Examples given included the Demand Flexibility Service or vehicle-to-grid markets. One respondent suggested that the benefits and practicality of the proposal should be carefully evaluated first, before applying additional burdens to these developing markets.

Our view

6.14 This option received the most support, with many respondents citing the desire for a level playing field where the TCLC applies to all market participants, not just licensed generators. At the same time, multiple respondents questioned how this could be achieved.

6.15 There are two main groups of market participants to which this option could apply:

A. Small licence-exempt generators. The 1989 Electricity Act[18] and the 2001 Electricity (Class Exemption from the Requirement for a Licence) Order[19] set the requirements for generators to hold a licence and the asset capacity thresholds for which exemptions are allowed. Typically, assets above 100MW are not able to obtain an exemption.

[18] Electricity Act 1989
[19] The Electricity (Class Exemptions from the Requirement for a Licence) Order 2001

B. Interconnector trades. It was argued, especially by NESO, that traders with capacity on cross-border interconnectors can enjoy considerable market power in the GB market, in particular when NESO tries to make full use of the cross-border capacity available. It is important to note that the owners of the physical infrastructure itself do not play a role in these trades, whose prices depend on decisions made by market participants that purchased import and export capacity on each interconnector.

6.16 With regard to group A above, the capacity thresholds attached to the requirements to apply for a generation licence exemption mean that, by design, licence-exempt generators have a relatively small capacity. Historically, this has reduced the likelihood of this class of assets posing a significant risk of market power exploitation.

6.17 We do not believe that such risk is considerably higher at present and we note that some initiatives to integrate licence-exempt assets in the BM are still at an early stage.

6.18 However, it is possible that, as technologies and market environments evolve, new opportunities for small licence-exempt assets to exercise excessive market power emerge in future.

6.19 For this reason, we will continue to monitor the behaviour of small licence-exempt assets and will consider consulting on interventions if market trends detrimental to consumers emerge.

6.20 With regard to interconnector trades, in recent years there have been several cases in which cross-border balancing actions conducted by NESO in transmission constraint periods were expensive for the consumers. In certain circumstances, national fundamentals meant that NESO did not have credible alternatives within the GB system to proceeding with expensive cross-border trades.

6.21 It is important to note that the TCLC does not prohibit the formation of expensive prices, which may be justified where a generator faces significant costs when reducing its output. Instead, the TCLC prohibits market participants from obtaining an excessive benefit from heightened market power caused by transmission constraints, when compared with the benefit that would have been obtained in the absence of any constraint.

6.22 We note that the price of interconnector trades, although at times seemingly expensive when considered against the status of GB fundamentals, also depend

on the fundamentals of GB's neighbouring countries or interconnected market regions.

6.23 In situations of restricted balancing options for NESO, cross-border trades closed at expensive prices might be needed to counteract equally expensive prices forming on the other side of the interconnectors and ensure the optimal direction of electricity flows. This can particularly be the case for deeply negative prices caused by excess generation, which can form more easily in certain continental European markets because of differences in fundamentals and market design.

6.24 A further important point of discussion is the role that interconnectors can play in securing GB's electricity supply. Internal considerations on this topic raised the potential for significant unintended consequences as far as cross-border market signals are concerned. Therefore, the impact of any changes made in this area should be carefully considered to determine that any benefit outweighs the risks.

6.25 Finally, we note that the government's Review of Electricity Market Arrangements (REMA) is considering reforms, including zonal pricing, that could change the price signals that drive the direction of interconnector flows and NESO's cross-border balancing actions.

6.26 Having considered the implications for security of supply, the potential overlap with REMA, the current cross-border market dynamics and the potential unintended consequences, we have decided not to consult on the option to cover interconnector trades at this stage.

6.27 However, we recognise that the interconnectors' weight on GB's electricity system is growing, as more cross-border cables are being built. For this reason, we will keep monitoring developments in this area and consider further exploring this option in future if necessary.

7. Conclusion and next steps

7.1 To summarise, this is our current stance on the five options on which we asked stakeholders for views in the call for input:

1. Expanding the Transmission Constraint Licence Condition (TCLC) to balancing services used by the electricity system operator to manage constraints other than the Balancing Mechanism: no consultation at this stage, but continue to monitor.
2. Expanding the TCLC to offers: no consultation at this stage, but continue to monitor.
3. Expanding the TCLC to bids to import or offers to export: no consultation at this stage, but continue to monitor.
4. Replacing the requirements of the TCLC with an explicit cap on generators' prices or profits in constraint periods: no consultation at this stage, but continue to monitor.
5. Extending the requirements of the TCLC to providers of balancing services other than licensed electricity generators: no consultation at this stage, but continue to monitor.

7.2 If in future we assess that any of the options above are worth exploring further, we will launch a consultation explaining the case for change and asking stakeholders to contribute with their inputs and analyses.