



Department for
Energy Security
& Net Zero

GB Wholesale Electricity Market Arrangements

Government response to consultation on re-coupling GB auctions for cross-border trade with the EU at the day-ahead timeframe



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Introduction

Executive summary

1. On 30 September 2021, the government published a consultation to seek views on the current arrangements for trading electricity on power exchanges in the Great Britain (GB) wholesale electricity market and to outline proposals to support efficient cross-border trading¹. The consultation was originally open for four weeks until 28 October 2021. To facilitate as many responses as possible this was extended by an additional week with the consultation formally closing on 3 November 2021.
2. We are grateful to those who were able to respond to the consultation for their responses on how to improve current GB wholesale electricity market arrangements.
3. The responses have been analysed to identify the common themes and most frequently expressed views. Following this analysis, we have concluded that a single GB clearing price in the day-ahead timeframe would be highly beneficial in supporting the United Kingdom (UK) to discharge its obligations under the UK-EU Trade and Cooperation Agreement (TCA), as well as deliver broader benefits to the GB wholesale electricity market and its participants in trading electricity cross-border as efficiently as possible as part of and in any case in advance of multi-region loose volume coupling (MRLVC).
4. Given no substantive progress has been made towards a voluntary solution to date, and taking full account of the consultation responses and our conclusion on the benefits, we intend to legislate to achieve a single GB clearing price, subject to engagement with the Specialised Committee on Energy (SCE), industry and stakeholders.
5. Before progressing with legislation, we will engage with the SCE to discuss the benefits of a single clearing price in our respective day-ahead markets and to ensure both Parties have a shared understanding of how a single GB clearing price will support us in meeting our shared obligations under the TCA. The SCE is designed to ensure the proper functioning of the Energy Title (Title VIII) in the TCA and is the appropriate forum to discuss these matters. We will update stakeholders on the outcomes of these discussions through appropriate industry forums in due course.
6. In parallel we plan to engage with industry and stakeholders to explore and understand how the recoupling of the two hourly day-ahead GB auctions, offered by European Power Exchange EPEX Spot SE's (EPEX) and Nord Pool AS's (NP) at 09:20 and 09:50 respectively, can be successfully designed and implemented. We are disappointed that these arrangements have not progressed in a voluntary manner, particularly given the strong consensus of industry, and would strongly encourage the two power exchanges to work collaboratively to help ensure a solution resulting in a single GB clearing price is developed and implemented as soon as possible.

¹ <https://www.gov.uk/government/consultations/re-coupling-great-britain-electricity-auctions-for-cross-border-trade>

7. Our engagement with the SCE, industry and stakeholders will ensure we are well placed to make a final decision on progressing legislation to implement a single GB clearing price (subject to parliamentary scrutiny).
8. Given the potential benefits of including North Sea Link (NSL) within any future recoupling arrangements, namely in preventing fragmentation of liquidity in the GB wholesale market and helping maximise efficient cross-border electricity trade over interconnectors, we shall encourage stakeholders to consider how NSL could be involved in the recoupling of the two hourly day-ahead GB auctions.

Background information

9. Following the UK's exit from the European Union (EU), electricity is no longer traded through the EU market coupling regime established through the Capacity Allocation and Congestion Management (CACM) Regulation². As a result, the EU market coupling process no longer determines prices for EPEX and NP's respective day-ahead GB markets that were previously coupled. Instead, interconnector capacity is sold to the market separately and independently of electrical energy through explicit auctions. EPEX and NP are now operating fully separated day-ahead markets, settling and clearing at different and independent prices.
10. The UK and the EU agreed the TCA on 24 December 2020, and it was applied provisionally from 1 January 2021 until formally entering into force on 1 May 2021. Implementation of the TCA will enable efficient electricity trade over electricity interconnectors and the relevant energy provisions³ will specifically support and strengthen the UK and EU's respective energy and climate ambitions whilst ensuring our respective markets are sufficiently compatible to enable efficient electricity trading to take place in an open and fair manner.
11. The TCA commits the UK and EU to ensuring the efficient use of electricity interconnectors and to coordinate the development of arrangements for robust and efficient outcomes for all relevant timeframes⁴. The TCA sets out the basis for these new arrangements in the day-ahead timeframe as an implicit⁵ MRLVC trading model, with the objective of maximising the benefits of trade.
12. Annex 29 of the TCA sets out the requirements for MRLVC. These include that interconnector flows should be calculated via an implicit allocation process by applying a specific algorithm. The inputs into the algorithm should include commercial bids and offers for the day-ahead market timeframe from 'relevant day-ahead markets'⁶ in the UK, and network capacity data and system capabilities determined in accordance with the

² Electricity Network Codes and Guidelines (Markets and Trading) (Amendment) (EU Exit) Regulations 2019 revoked Commission Regulation (EU) 2015/1222 CACM to the extent it applied in GB as retained EU law.

³ Part 2 – Title VIII – Energy - Trade and Cooperation Agreement

⁴ For example, Article 311 of the Trade and Cooperation Agreement

⁵ Implicit trading is where the capacity on the interconnector and the energy product are bought together in a single auction.

⁶ The consultation proposed that for the purposes of Annex 29 of the TCA these should be the two hourly day-ahead GB auctions which currently take place at 09:20 and 09:50.

procedures agreed between Transmission System Operators (TSOs). If the inputs into the algorithm include network capacity or system capabilities that do not reflect the physical ability to trade power between the 'relevant day-ahead markets' in the UK and relevant connected EU bidding zones, MRLVC may not calculate the most efficient interconnector flows.

13. Efficient cross-border electricity trading arrangements are critical to realising the benefits of interconnection and multi-purpose interconnectors.

Consultation proposals

14. The consultation proposed the introduction of arrangements between the 'relevant day-ahead markets' to support the formation of a single GB clearing price, so that the commercial bids and offers input into MRLVC can be matched, cleared, and settled in line with the MRLVC process to determine interconnector flows, and in any case to support the GB market and GB market participants in trading cross-border electricity as efficiently as possible in advance of MRLVC.
15. The consultation proposed that the 'relevant day-ahead markets' for the purposes of Annex 29 of the TCA should be the two hourly day-ahead GB auctions which currently take place at 09:20 and 09:50. These two auctions were previously coupled by EPEX and NP for purposes of trade with the EU (when the UK was part of the Internal Energy Market). The use of the commercial bids and offers from these auctions would most likely maximise the benefits of cross-border trade by providing the most reliable market signals.
16. Although the consultation was primarily focused on identifying the 'relevant day-ahead markets' that would be used for the purposes of Annex 29 of the TCA and the proposal to re-establish a single GB clearing price by coupling those specific hourly day-ahead GB auctions, stakeholder views were sought on a number of further related issues regarding:
 - further governance arrangements and processes (once new trading arrangements with the EU are operational), and the role of Ofgem in those governance processes;
 - possible further policy proposals relating to the operation of power exchanges in the GB wholesale market across other timeframes; and
 - possible further policy proposals relating to the operation of power exchanges in the GB wholesale market across other borders.

Summary of responses to the consultation questions

17. The consultation received 25 individual written responses while the consultation was open. Two responses were received after the extended consultation period closed. These proposals have not been counted in this summary of responses. The evidence provided in these late submissions has been noted as part of the government's consideration of this issue.
18. Responses were received from a range of respondents including power exchanges, energy companies, trade associations, energy and commodity traders, energy solution providers, transmission system operators and energy system operators.
19. All responses have been recorded and the government has analysed the common themes that emerged to obtain an indication of the most frequently expressed points of view.
20. In reporting the overall response to each question, we have used a number of terms:
 - 'Majority' and 'most' indicates the clear view of more than 50% of respondents to that question.
 - 'Minority' and 'few' indicates the clear view of fewer than 50% of respondents to that question.
21. Not all responses answered every question. The number of responses each question received is noted in brackets. This number excludes those who stated they had no opinion or comment to give on the question. Any percentage cited in favour or opposition to a question excludes those who had no opinion or comment to give on the question or said 'don't know'.
22. Analysis has shown that the majority of respondents were supportive of the proposals set out in the consultation. This summary of stakeholder responses is organised with each question presented in the order they appeared in the original consultation.

Questions on approach to forming and implementing a single GB clearing price:

Question 1: (20 responses) What has been the impact (financial or otherwise) of power exchanges ceasing to couple their auctions in the day-ahead timeframe and not producing a single GB clearing price? Please provide details and estimates of the impact.

23. Respondents who commented on this question highlighted a variety of concerns and impacts as a consequence of the power exchanges ceasing to couple their hourly day-ahead auctions in GB. We have set out the key themes which were raised by respondents:
- Reduced liquidity in each power exchange’s respective hourly day-ahead timeframe auctions.
 - Higher costs for market participants as a consequence of:
 - managing the risks of price divergences between the two power exchanges;
 - trading on two different platforms; and
 - traders attempting to arbitrage between the two auctions.
 - Increased operational complexity due to needing to manage additional auctions at different times.
 - Increased number of instances of flows against price differential for imports and exports over electricity interconnectors.
24. Several respondents considered divergences in the clearing prices between the two power exchanges are greatest on ‘tight days’, this is typically defined as where the cushion of spare capacity on the electricity system is low, and not attributable to market fundamentals.
25. However, two respondents noted their view that the effect of the divergence in prices between the two exchanges was minimal.

Question 2: (24 responses) Do you agree with the proposal for the two day-ahead auctions noted in paragraph 22 to be used as the ‘relevant day-ahead markets’ for the purposes of Annex 29 of the TCA?

26. The majority of respondents (88%) agreed with the proposal. The reasons for this support varied, but several respondents expressed the view that the two hourly day-ahead auctions described in paragraph 22 of the consultation are the most liquid and see the largest traded volumes in the day-ahead timeframe.
27. However, a minority of respondents considered that although it would be possible to use these auctions as the ‘relevant day-ahead markets’, it wasn’t strictly necessary for MRLVC.

Question 3: (24 responses) Do you agree that the coupling of the ‘relevant day-ahead markets’ is necessary to provide the appropriate market arrangements to support efficient trade of electricity over interconnectors, as part of and in any case in advance of MRLVC? Please provide supporting evidence for this necessity.

28. The majority of respondents (88%) agreed, acknowledging the inefficiencies highlighted in the consultation document and noting that the proposal should be implemented promptly, describing it as a ‘no-regrets’ solution.

29. Some respondents elaborated on this and raised concerns as to whether, in the absence of a single GB clearing price, there would be a fair or efficient basis to allocate interconnector flows determined under MRLVC.
30. However, a minority of respondents disagreed with the question. Several respondents expressed their view that recoupling of the two hourly day-ahead GB auctions is not necessary for trade to take place efficiently over the electricity interconnectors.

Question 4: (23 responses) Do you agree with the proposal that legislative intervention is necessary to enable the formation of a single GB clearing price in the 'relevant day-ahead markets' to ensure efficient electricity trading over interconnectors, now and as part of MRLVC? Do you have evidence to support this proposal? Do you have any alternative proposals with supporting evidence?

31. The majority of respondents (74%) agreed that legislative intervention is necessary to enable the formation of a single GB clearing price in the 'relevant day-ahead markets' to ensure efficient electricity trading over interconnectors, now and as part of MRLVC.
32. Within this group there were some further nuances as one respondent considered that it would be important to ensure any future legislation relating to a single GB clearing price would be applicable to any new market entrants. Some respondents gave their view that any intervention should set out a more detailed framework clearly setting out roles and responsibilities regarding the sharing of order books and market operator functions.
33. Those respondents that disagreed about the need for legislative intervention expressed views that:
 - A single GB clearing price could be achieved voluntarily without legislative intervention or implemented through existing GB competition law frameworks.
 - There should be simultaneous reciprocity in mandating market coupling of both timeframes.

Question 5: (24 responses) Do you agree with our outcomes in paragraph 27 against which the market operators should re-couple their 'relevant day-ahead markets'? Are there additional outcomes that should be required in the recoupling of the 'relevant day-ahead markets'?

34. The majority of respondents (83%) agreed with the outcomes noted in paragraph 27 of the consultation, against which market operators should recouple their 'relevant day-ahead markets'.
35. Within this group a minority of respondents highlighted additional outcomes which they considered should be required in the recoupling of the 'relevant day-ahead markets' including but not limited to:
 - Clear requirements for any market coupling operator role.

- Other non-EU borders.
 - Fallback procedures if coupling between the two power exchanges were to fail.
 - Expansion of the third outcome so that it reads, “allows for future interaction with, and amendment as necessary to support efficient trade of electricity over interconnectors and in particular facilitate MRLVC”.
 - The efficient functioning and development of the GB clearing price methodology and cross-border clearing arrangements.
36. The minority of respondents who disagreed with the outcomes made the following points:
- One respondent noted that, in their view, the outcomes referred to in the fourth bullet point of paragraph 27 (fair and non-discriminatory in the treatment of the relevant electricity market operators, TSOs, and wider market participants) cannot be achieved by the proposals as laid out in the consultation and would end up being undermined by them.
 - One respondent, although agreeing with the outcomes described in the first bullet point (results in a single GB clearing price across the two ‘relevant day-ahead markets’) and fourth bullet point (is fair and non-discriminatory in the treatment of the relevant market operators, TSOs, and wider market participants) of paragraph 27, felt the other outcomes need to be clarified further and made more specific.

Question 6: (20 responses) Taking account of the UK’s obligations under the TCA, with particular reference to those provisions in Annex 29, do you agree with the proposed timeframe for making operational the new mechanisms for a single GB clearing price?

37. A majority of respondents (90%) agreed with the proposed timeline for making operational the new mechanisms for a single GB clearing price ahead of the MRLVC technical procedures entering into operation. However, there was some uncertainty with several respondents expressing their disagreement with the question.

Question 7: (20 responses) Do you agree with our proposal for the costs of re-coupling the ‘relevant day-ahead markets’ be borne by the operators?

38. Of those respondents who commented there was no clear consensus with views evenly distributed (50%) between those who agreed that the operators should bear the costs and those who disagreed with the proposal and put forward different approaches, or did not express a clear view in favour or opposition to the proposal.
39. A broad range of views were expressed by respondents with regards to the costs of recoupling and who should be responsible for those costs:
- The power exchanges should be able to recover the costs as they are being asked to fulfil a natural monopoly type role.

- The costs incurred by the power exchanges should instead be distributed through Transmission Network Use of System Charges (TNUoS).
- Costs should be recovered in the same way they previously were under the CACM regulation.
- Any cost recovery mechanism should be the same as proposed for MRLVC.

Question 8: (13 responses) What do you estimate to be the costs of implementing the proposal for either or both operators and the industry more widely? Please provide details and estimates of any relevant activities required to transition from the current arrangements to the new arrangements laid out in the proposal.

40. There were a notable number of submissions which did not provide an answer to this question. We would like to thank those respondents who were able to provide or offered to produce a cost estimate for implementing the proposal on a confidential basis.
41. A majority of respondents (83%) considered the implementation costs and personnel resource associated with the proposal would likely not be material, with responses commenting on both industry-wide costs and/or costs for their individual organisation.
42. A minority of respondents expressed the view that as the specific details of the proposal were not yet known it would be difficult to provide an accurate cost estimate.

Question 9: (19 responses) What do you estimate to be the impacts (financial or otherwise) to operators and market participants from adopting the new arrangements laid out in the proposal? What are the impacts of not implementing the proposal? Please provide details and estimates of the relevant costs and benefits.

43. Respondents who commented on this question highlighted a variety of concerns and impacts from adopting the new arrangements. We have set out some of the key themes which were raised by respondents:
 - Adopting the new arrangements could help resolve the issues raised in response to Question 1 of the consultation.
 - Adopting the new arrangements would outweigh any costs incurred by operators and market participants.
 - Failing to implement the proposed arrangements could hinder the implementation of MRLVC and lead to continued upward pressure on wholesale prices which would ultimately be passed on to consumers.
44. Several respondents noted they would not be able to recover the subscription fees already paid to access both power exchanges' services if there was a recoupled auction but noted the benefits of a recoupled auction (e.g. access to pooled liquidity) would outweigh this loss.

45. However, several respondents highlighted in their view that:

- There could be a cost for those entities operating the ‘relevant day-ahead markets’ given customers would be able to procure services from one power exchange and benefit from the pooled liquidity of a recoupled auction.
- There could be significant impacts in terms of system designs and related changes to adopt these new arrangements.

Question on regulation of a single GB clearing price:

Question 10: (20 responses) To what extent do you agree with our proposals for regulating the new mechanism for a single GB clearing price? Should these obligations be capable of enforcement by Ofgem as if they were a relevant requirement on a ‘regulated person’ for the purpose of the Electricity Act 1989?

46. A majority of respondents (90%) agreed with the proposals, noting that Ofgem should have regulatory oversight and enforcement powers over any new mechanism for a single GB clearing price. One respondent went further and stated that Ofgem should have regulatory oversight over any arrangement which saw the introduction of a single GB clearing price even if it were implemented voluntarily.

47. A minority of respondents disagreed with the proposals and Ofgem’s role in regulating a single GB clearing price, expressing the following views:

- Legislative intervention is not required to establish a single GB clearing price, as a result the establishment of the status of a regulated person also isn’t necessary.
- A new regulatory framework should be established for power exchanges in GB to ensure their roles and responsibilities are placed on a proper legislative footing, rather than deeming power exchanges to be a ‘regulated person’ for the purpose of the Electricity Act 1989.

Questions on future governance arrangements:

Question 11: (20 responses) To what extent do you agree with the proposal for a designation process enabling eligible persons (including existing market operators) to apply to undertake MRLVC functions rather than establishing a new entity for this purpose?

48. Most respondents who commented on this question expressed agreement with the proposed designation process enabling eligible persons to undertake MRLVC functions rather than establishing a new bespoke entity.

49. Respondents who agreed with the proposals for a designation process expressed views that:
- The two power exchanges have experience of performing the market operator function and would be able to provide a high quality and reliable service.
 - The designation process previously used for the purposes of CACM was successful.
 - The proposal for a designation process will enable competition.
50. However, of those respondents that disagreed their views were that:
- Given the technical procedures for MRLVC are yet to be developed, it is too early to consider this issue in detail.
 - The proposal would likely require additional resource and time with limited opportunities to encourage new entrants in a way that creates additional value.

Question 12: (18 responses) To what extent do you agree Ofgem should be responsible for assessing entities against any future designation criteria and approving the designation of entities who undertake coupling activities under MRLVC? What do you think any such designation criteria and process should look like?

51. A majority of respondents (89%) agreed with the proposal that Ofgem should be responsible for assessing entities against any future designation criteria and approving the designation of entities who undertake coupling activities under MRLVC.
52. Around 25% of respondents expressed the view that any designation process itself should closely mirror the CACM regulation, a process which is already well known by market participants. A respondent stressed the organisational capability and financial strength of any entities seeking to undertake coupling activities under MRLVC should be carefully considered as part of any assessment by Ofgem.
53. However, of those respondents that disagreed their views were:
- This question is premature, so cannot be answered in an informed way given that MRLVC technical procedures have not been developed yet.
 - Legislative intervention and designation of a regulated person is not necessary to establish a single GB clearing price.

Question 13: (14 responses) An alternative legislative option would be to licence those entities who wish to undertake market coupling under MRLVC relating to 'relevant day-ahead markets' for the purposes of Annex 29 of the TCA. It would be beneficial to obtain stakeholders thoughts on this alternative approach.

54. We note that a number of respondents did not provide a response to this question. Of those which did, there was no clear consensus with views evenly distributed between those who

agreed licencing was a potential alternative approach and those who disagreed with the proposal. We have set out some of the key themes which were raised by respondents.

55. Several respondents who agreed with licensing as an approach expressed the view that licensing offers flexibility allowing requirements to be amended as necessary.
56. Those respondents who disagreed with licensing as an approach expressed the views that:
- They did not view this alternative approach as being better.
 - A relatively light-touch designation process has been sufficient to date in the presence of two competing, technically capable market operators.
 - They did not see the benefit of adding this additional requirement given this was not necessary when a single GB price was first established under CACM.

Questions on possible future interventions across other trading timeframes:

Question 14: (23 responses) Are there similar issues and concerns, as set out in this consultation for the ‘relevant day-ahead markets’, for the intraday trading timeframe?

Question 15: (15 responses) What are those issues and concerns, do they relate to domestic or cross-border trade between the UK and the EU, and do you have evidence of the associated impacts?

57. A majority of respondents (65%) expressed the view that there are similar issues and concerns, for the intraday trading timeframe, with several respondents highlighting the risks of inaccurate price signals and a reduction in market liquidity.
58. Respondents outlined what they considered to be the potential benefits of addressing the intraday timeframe:
- Ensuring the flows of renewable energy can be efficiently managed.
 - Supporting the optimal allocation of capacity in the day-ahead timeframe.
 - Increased efficiency and liquidity.
59. A minority of respondents did not consider there to be similar issues for the intraday timeframe expressing the views that:
- Coupling the intraday timeframe could be more complex to deliver compared to the day-ahead timeframe.
 - Unlike the day-ahead timeframe where there was previously a single GB clearing price, the situation has not changed in the intraday timeframe.

Question 16: (21 responses) The proposed intervention spans the specific auctions noted in paragraph 22 which we propose should be used as the ‘relevant day-ahead markets’ for the purposes of Annex 29 of the TCA. However, we would welcome views as to what extent you agree that a similar mechanism is needed to produce a single GB clearing price across existing intraday trading mechanisms?

60. There was no clear consensus between respondents with views evenly distributed between those who agreed a similar mechanism is needed across existing intraday trading mechanisms and those who disagreed. We have set out some of the key themes which were raised by respondents.
61. Respondents who agreed that a similar mechanism is needed expressed views that:
- Such arrangements would help improve liquidity and market efficiency in the longer term.
 - Any mechanism that reduces the costs for GB consumers would be welcomed.
62. Within this group respondents shared different views as to when such a mechanism should be introduced:
- The intraday timeframe should continue to be explored once the day-ahead timeframe has been resolved.
 - The intraday timeframe should be developed in parallel with the day-ahead timeframe or as soon as possible.
63. Respondents that disagreed expressed views that:
- Implementing a similar mechanism across intraday and other timeframes would involve greater risks compared to the day-ahead timeframe, as day-ahead arrangements are already well understood and have been successfully implemented in the past.
 - Coupled intraday auctions would interrupt and undermine intraday market liquidity.
 - Without clarity on an intraday market arrangement (such as a target model) it is not possible to take any view as to the concerns or interventions required in this timescale.

Questions on possible future interventions across other trading borders:

Question 17: (20 responses) Do you agree that there are interactions between UK-EU trading and other UK trading borders, specifically with Norway? What are those interactions, and what are the associated impacts?

64. A majority of respondents (85%) expressed the view that there are interactions between UK-EU trading and other UK trading borders, specifically NSL, and similar issues exist.

- Respondents felt the most efficient way to avoid inefficiencies and market distortions would be for the proposed single GB clearing price arrangements to apply to NSL as well.
 - Respondents raised concerns about the operation of a separate day-ahead auction in GB allocating capacity over NSL. It was noted this could result in a failure to optimise flows across the interconnector.
 - Respondents stated that NSL would benefit from being part of the pooling of GB volumes in the day-ahead timeframe under the proposed GB coupling arrangements.
65. Not all respondents shared these views, with a minority noting existing agreements should be sufficient to mitigate the risks of having separate arrangements in operation over NSL. Other respondents noted the importance of having equivalent arrangements in place for the intraday timeframe, which should be implemented at the same time as any day-ahead arrangement to maximise efficient trade over NSL.
66. A respondent noted the current gate closure time allows market participants in Norway to first participate in the NSL auction and then in the Single Day-ahead Coupling (SDAC) process, thereby maximising liquidity. They expressed the view that, depending on the timing of any GB recoupled auction, this could change and could result in Norwegian market participants needing to choose whether to participate in the NSL auction or SDAC, which could reduce liquidity over NSL.

Question 18: (20 responses) Considering either day-ahead or intraday timeframes, to what extent do you consider that it would be beneficial for a new mechanism for a single GB clearing price to apply to all UK-EU and UK-Non-EU interconnection? What would be the impact (financial or otherwise) of having different arrangements in place on different borders?

67. Most respondents expressed the view that they support more efficient trading over electricity interconnectors but differ as to how/when those targets can/should be achieved.
68. The majority of respondents (90%) noted that in due course it would be beneficial to have a single GB price applicable to all UK-EU and UK-Non-EU interconnection across both day-ahead and intraday timeframes. Views expressed by respondents included that such an approach would simplify both domestic and cross-border trade, increase liquidity and promote less price volatility. Several respondents expressed the view that having different arrangements in place on different trading borders could lead to market distortions.
69. However, several respondents noted what they viewed as the importance of recognising that different jurisdictions have different regulatory arrangements which could impact the benefits of a single GB clearing price. In their view, careful co-ordination between jurisdictions would be necessary to support the introduction of a single GB clearing price.

Government response and forward proposal

Government proposals

70. We are grateful to those who were able to respond to the consultation for their responses on how to improve current GB wholesale electricity market arrangements.
71. Having carefully considered the consultation responses, we have decided to take forward the majority of the proposals outlined in the consultation to support the efficient trade of electricity over interconnectors, as part of and in any case in advance of MRLVC.
72. This section is broken down to reflect each of the questions raised in the consultation document.

Dealing with day-ahead markets: multi-region loose volume coupling

73. With the aim of ensuring the efficient use of electricity interconnectors and reducing barriers to trade between the EU and UK, the TCA requires the development of arrangements to deliver robust and efficient outcomes for all relevant timeframes (forward, day-ahead, intraday and balancing⁷). For the day-ahead timeframe specifically, the TCA goes further and specifies details⁸ for developing new cross-border arrangements according to a new model of trade: MRLVC. The technical details of the trading model are to be jointly developed by the relevant UK and EU Electricity System Operators and Interconnector TSOs for submission to the SCE⁹.
74. The TCA is clear that the SCE, as a matter of priority, should be progressing work on the new efficient electricity trading arrangements. At the SCE meeting on 30 March 2022, both the UK and EU affirmed that, while the timeline in Annex 29 to the TCA has not been met, they remain committed to discharging the SCE's obligations under TCA Articles 312 and 317 as a matter of priority. The UK set out its significant concern about the delays to date to the TCA's timetable and called for accelerated engagement on this issue. At the SCE meeting on 28th September 2022, both the UK and EU reiterated their commitment to discharging the SCE's obligations under TCA Articles 312 and 317(2), as well as Article 321 as a matter of priority. On 24 March 2023, the UK-EU Partnership Council confirmed both parties' commitment to progressing work on MRLVC.
75. As required by the TCA, the UK and EU TSOs undertook and published the Cost Benefit Analysis¹⁰ (CBA) for MRLVC in April 2021. It identified that a single GB clearing price at the day-ahead timeframe is highly desirable for the effective implementation of MRLVC, which will underpin efficient trading arrangements between the UK and EU. The CBA further

⁷ Article 311(1)(f) of the Trade and Cooperation Agreement

⁸ Annex 29 – Part 1 of the Trade and Cooperation Agreement

⁹ Article 311(1)(f), Article 312(1), Article 317 of the Trade and Cooperation Agreement

¹⁰ Annex 29 – Part 1(1) & Part 2 of the Trade and Cooperation Agreement

noted that the lack of the single GB clearing price, with GB power exchanges independently calculating separate prices through separate auctions, may create issues in the effective implementation of MRLVC. These issues could include incomplete optimisation, a negative impact on price formation and increased complexity of fallback arrangements and coordination procedures. Therefore, the TSOs recommended a single GB clearing price as a common feature in all MRLVC design options.

76. In response to the CBA, market participants and trade associations highlighted the importance of the single GB clearing price in supporting the TCA's objectives and the effective functioning of the newly proposed implicit trading model. Similar views were raised in response to this consultation with agreement among the majority of respondents about the potential inefficiencies that could occur if cross-border trade under MRLVC were to take place with uncoupled hourly day-ahead GB auctions. For example, one submission noted that:

“there would appear to be no fair or efficient basis to allocate the interconnector flows determined under MRLVC to the respective exchanges subsequently in the presence of two separate exchanges. Any attempt to do so could lead to unnecessary and unpredictable price divergence between the two exchanges...[t]he result would fragment liquidity in the day-ahead markets and further undermine forward market liquidity.”

77. Submissions more broadly demonstrated the inefficiency and real-world impact on trading with two hourly day-ahead GB auction prices. One consultation response provided a useful example highlighting the problems price divergences between the exchanges can cause. The respondent explained the difficulty in determining efficient interconnector flows between GB and the EU. The submission noted that if:

“the N2EX GB auction clears at £40/MWh for one hour; and the EPEX SPOT GB auction clears at £50/MWh; while the power price in France in that same hour is €46/MWh; then it is not clear whether it is most efficient to schedule the 3GW of interconnection to France to flow from France to GB in that hour or to flow from GB to France. While it is possible to correct uneconomic flows in the intraday timeframe...it would likely be significantly more cost-effective if the day-ahead timeframe enabled the interconnectors to be scheduled in the correct direction in the first instance.”

78. The consultation proposals were not universally supported, with one submission stating the current trading arrangements have had a minimal impact on electricity prices overall, presenting a low risk for GB consumers. The respondent stated that:

“...since 1st January 2021 [to October 2021], the average price spread between the two GB day ahead auctions operated by EPEX Spot at 9:20am and N2EX at 9:50am has been less than £5/MWh across 71.6% of all hourly trading periods, and less than £10/MWh across 90.5% of all hourly trading periods.”

79. However, this illustrates that there can be divergences in price between the exchanges, which other respondents consider to be significant (£10/MWh or more). Several respondents cited multiple impacts this price divergence can have on electricity trading, including challenges in establishing the most efficient way to schedule interconnector flows and avoid uneconomic flows. Further to this, we understand that on ‘tight days’¹¹, where there are periods of low domestic generation when GB would benefit from efficient interconnector imports, market participants have experienced significant price divergences between the two exchanges which has also made it difficult for market participants to manage risk.
80. The existence of a price differential between the two hourly day-ahead GB auctions contributes to unclear price signals making it difficult for market participants to make most efficient use of cross-border trade of electricity. The introduction of a single GB clearing price would therefore support more efficient trade of electricity over interconnectors, as well as deliver broader benefits to the GB wholesale electricity market in trading electricity cross-border as efficiently as possible as part of and in any case in advance of MRLVC.
81. Submissions noted a number of domestic impacts from the decoupling of EPEX and NP’s day-ahead GB auctions. While domestic impacts are an ongoing cause for concern and we will continue to engage with industry, the primary focus of the consultation is the implementation of efficient cross-border trade with the EU.

Definition of ‘relevant day ahead markets’

82. The majority of submissions agreed that the ‘relevant day-ahead markets’ for the purposes of Annex 29 of the TCA should be the two hourly day-ahead GB auctions which currently take place at 09:20 and 09:50. This is primarily because each auction sees the largest traded volumes out of the available day-ahead GB auctions, and therefore would support the efficient trade of electricity over interconnectors, as part of and in any case in advance of MRLVC. Submissions also noted that these auctions were previously coupled for the purposes of participating in SDAC.

It is the government’s view that it would be highly beneficial for the UK to introduce a single GB clearing price by recoupling the two hourly day-ahead GB auctions, supporting the UK to discharge its obligations under the TCA. A single GB clearing price would support the efficient trade of electricity over interconnectors, as well as deliver broader benefits to the GB wholesale electricity market in trading electricity cross-border as efficiently as possible as part of and in any case in advance of MRLVC.

Given no substantive progress has been made towards a voluntary solution to date, and taking full account of the consultation responses and our conclusion on the benefits, we intend to legislate to achieve a single GB clearing price, subject to engagement with the SCE, industry and stakeholders.

¹¹ See footnote 7.

Before progressing with legislation, we will engage with the SCE to discuss the benefits of a single clearing price in our respective day-ahead markets and to ensure both Parties have a shared understanding of how a single GB clearing price will support us in meeting our shared obligations under the TCA. The SCE is responsible for ensuring the proper functioning of the Energy Title in the TCA and is the appropriate forum to discuss these matters. We will update stakeholders on the outcomes of these discussions through appropriate industry forums in due course.

In parallel we plan to engage with industry and stakeholders to understand how the recoupling of the two hourly day-ahead GB auctions can be successfully designed and implemented.

Our engagement with the SCE, industry and stakeholders will ensure we are well placed to make a final decision on progressing legislation to implement a single GB clearing price (subject to parliamentary scrutiny).

Treatment of costs

83. The consultation proposed the associated costs of recoupling the two hourly day-ahead GB auctions offered by EPEX and NP at 09:20 and 09:50 respectively be borne by the relevant electricity market operators.
84. We note there was an almost even split between those respondents who agreed and disagreed with the consultation proposal. Respondents noted it would be reasonable for the relevant electricity market operators to bear the costs. However, concerns were raised by some respondents who highlighted there should be appropriate regulatory oversight over the costs incurred and the recovery mechanism.
85. Having carefully considered the responses to this consultation we propose to move away from the assumption that costs shall be distributed through arrangements such as TNUoS or similar mechanisms. We believe the associated costs of any future recoupling of the two hourly day-ahead GB auctions offered by EPEX and NP at 09:20 and 09:50 should be borne by the relevant electricity market operators.
86. We believe the two power exchanges are uniquely positioned to drive this process. They have the relevant industry knowledge and expertise to not only ensure costs are minimised but also to recover those costs as efficiently as possible on a commercial basis through their fees charged to their users (i.e. market participants) should they wish.

We believe the relevant electricity market operators should bear the associated development, implementation and operational costs of any future recoupling of the two hourly day-ahead GB auctions offered by EPEX and NP at 09:20 and 09:50 respectively, with any costs incurred efficiently and recovered on a commercial basis should they wish.

*Legislation – Arrangements for a Single Clearing Price*¹²

87. Secretary of State Guidance published in January 2021¹³ on the application of the TCA noted it would be appropriate for the previous arrangements that resulted in a single GB clearing price be replicated at the earliest opportunity. In response to the CBA carried out by UK and EU TSOs, industry noted the importance of the single GB clearing price in supporting the TCA's objectives and the effective functioning of MRLVC, describing the implementation of such arrangements as 'no-regret' work that will also improve the efficiency of the explicit trading arrangements currently in place. Despite these recommendations, no substantive progress has been made towards a voluntary solution to support the formation of a single GB clearing price at the day-ahead timeframe.
88. The consultation sought views on whether legislative intervention is necessary to enable the formation of a single GB clearing price in the 'relevant day-ahead markets' for the purpose of electricity trading over interconnectors and whether such arrangements should be regulated by Ofgem.
89. There was significant support for legislative intervention to secure a single GB clearing price and to ensure Ofgem has appropriate powers to regulate the new mechanism for a single GB clearing price.

We note there was significant support for legislative intervention to secure a single GB clearing price and for Ofgem to have appropriate powers to regulate any new arrangements for a single GB clearing price.

Given no substantive progress has been made towards a voluntary solution to date, and taking full account of the consultation responses and our conclusion on the benefits, we intend to legislate to achieve a single GB clearing price, subject to engagement with the SCE, industry and stakeholders.

Before progressing with legislation, we will engage with the SCE to discuss the benefits of a single clearing price in our respective day-ahead markets and to ensure both Parties have a shared understanding of how a single GB clearing price will support us in meeting our shared obligations under the TCA. The SCE is responsible for ensuring the proper functioning of the Energy Title in the TCA and is the appropriate forum to discuss these matters. We will update stakeholders on the outcomes of these discussions through appropriate industry forums in due course.

¹² Please note there are no plans to regulate the cross-border market coupling function at this stage. The submission responses will be taken into account when considering further legislation to support the implementation of MRLVC in the future.

¹³ Electricity trading arrangements - published in January 2021 and available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/958195/secretary-of-state-electricity-trading-arrangements-guidance.pdf

In parallel we plan to engage with industry and stakeholders to explore and understand how the recoupling of the two hourly day-ahead GB auctions, can be successfully designed and implemented.

Our engagement with the SCE, industry and stakeholders will ensure we are well placed to make a final decision on progressing legislation to implement a single GB clearing price (subject to parliamentary scrutiny).

Possible future interventions across other timeframes

90. The efficient use of electricity interconnectors is a key focus of the energy title in the TCA which extends beyond the day-ahead timeframe. It requires the development of arrangements to deliver robust and efficient outcomes for all relevant timeframes being forward, day-ahead, intraday and balancing¹⁴. However, the immediate focus is on the day-ahead timeframe given the priority placed on it by the TCA.
91. A number of submissions acknowledge the priority must be the recoupling of the day-ahead GB markets and reaching an agreement with the EU on the implementation of MRLVC, while noting the possible future benefits of taking action in the intraday timeframe, particularly the continuous intraday market.
92. Submissions stated that the intraday timeframe experiences many of the same issues as the day-ahead timeframe, such as inaccurate price signals and a reduction in market liquidity. These respondents were of the view that action in the intraday timeframe, such as the sharing of order books in the continuous intraday market, could be beneficial in terms of improving liquidity, market efficiency and in the longer-term help ensure efficient cross-border electricity trade over interconnectors is maximised particularly as we transition our energy system towards more intermittent renewables. Not all submissions agreed with this, stating that in their view, action in the intraday timeframe represents a greater unknown compared to the day-ahead timeframe and may be more complex to implement.

In accordance with the terms of the TCA the day-ahead timeframe should remain the priority. However, development of efficient arrangements in other timeframes should continue to be kept under review to ensure efficient cross-border electricity trade over interconnectors is maximised.

Possible future interventions across other borders (NSL Specifically)

93. The arrangements and proposed interventions set out in the consultation were primarily concerned with the trading of electricity between the UK and EU. However, concerns have been raised regarding the interactions and implications of UK-EU electricity trading on other borders, specifically between GB and Norway and the allocation of capacity on the NSL interconnector. The consultation sought views about the interactions between UK-EU and

¹⁴ Article 311(1)(f) of the Trade and Cooperation Agreement

UK-Norway trading, and whether any future interventions are necessary to support those trading arrangements.

94. Overall, the majority of respondents raised concerns about the operation of a separate day-ahead auction in GB allocating capacity over NSL. It was stated that this could result in a failure to optimise flows across the interconnector with respondents being of the view that NSL would benefit from being part of the pooling of GB volumes in the day-ahead timeframe under the proposed GB coupling arrangements.
95. NSL's capacity is currently allocated by NP, as the presently appointed power exchange, at the 9:50 day-ahead auction (one of the 'relevant day-ahead markets' for the purpose of the consultation). Respondents noted the current gate closure time allows market participants in Norway to first participate in the NSL auction and if not successful participate in the SDAC process, maximising liquidity. We understand that depending on the timing of any recoupled auction, liquidity over NSL could be adversely affected as Norwegian market participants may need to choose between participating in the NSL auction or SDAC process. Respondents noted that any changes to the auction timing would need to be carefully considered before implementation.
96. Some respondents noted that current agreements should be sufficient to mitigate the risks of having separate arrangements in operation over NSL. Others noted the importance of having equivalent arrangements in place for the continuous intraday market which should be implemented at the same time as any day-ahead arrangement to maximise efficient trade over NSL.

We want to see a recoupling solution that helps maximise cross-border trade between the UK-EU, supports our treaty obligations and prevents fragmentation of liquidity in the GB wholesale market.

Taking full account of the responses to this consultation and the agreement reached between Norway and the UK in September 2021¹⁵, we recognise the benefits of including NSL's capacity in any day-ahead GB recoupling arrangements.

It is the government's view that any day-ahead GB recoupling arrangements should be capable of supporting the inclusion of NSL's capacity to help maximise efficient cross-border electricity trade over interconnectors and to help prevent the fragmentation of liquidity in the GB wholesale electricity market.

¹⁵ Article 5(a) of the Agreement between the Kingdom of Norway and the United Kingdom of Great Britain and Northern Ireland on cross-border trade in electricity and cooperation on electricity interconnection aiming to promote efficient electricity trade and minimise barriers to electricity trade.

Possible future interventions across other borders (Single Price All Borders)

97. Views were sought on the extent to which it would be beneficial to provide a mechanism for a single GB clearing price in either the day-ahead or intraday timeframe, which would be applicable to all UK-EU and UK-Non-EU interconnection.
98. Most respondents are aligned in terms of wanting ever more efficient trading over electricity interconnectors but differ as to how/when those targets can/should be achieved. Almost all submissions acknowledged there would likely be a benefit in having a single GB clearing price across both day-ahead and intraday timeframes, applicable to all UK-EU and UK-Non-EU interconnection. Such an approach would simplify both domestic and cross-border electricity trade, increasing liquidity and promoting less price volatility.
99. As set out above, the day-ahead timeframe should remain the priority in accordance with the TCA. However, we hope to see continued cooperation between parties across all timeframes to ensure the development of a system which supports our future electricity needs.

In accordance with the terms of the TCA the day-ahead timeframe should remain the priority. However, development of efficient arrangements in other timeframes should continue to be explored to ensure efficient cross-border electricity trade over interconnectors is maximised.

Future Governance Arrangements

100. The consultation was primarily focused on identifying the 'relevant day-ahead markets' that would be used for purposes of Annex 29 of the TCA and the proposal to re-establish a single GB clearing price. However, views were also sought on a number of other issues set out below.

Designation process for market operators of MRLVC

101. Most submissions agreed that any future designation process should allow eligible persons, including existing market operators, to apply to undertake MRLVC functions rather than establishing a new entity for this purpose.

Future assessment of market operators of MRLVC

102. Submissions broadly agreed that Ofgem should be responsible for assessing eligible persons against any future designation criteria, as well as approving the designation of eligible persons to undertake coupling activities under MRLVC. One respondent expressed the view that Ofgem should assess the organisational and financial capability of entities undertaking coupling operations.
103. A majority of submissions were of the view that the designation process should be as similar as possible to the previous processes which operated in GB under CACM to ensure efficient operability of arrangements. There was a general consensus that establishing a new entity to perform MRLVC functions would likely impact the implementation timescales,

and that the existing market operators (e.g. the two GB power exchanges) had the experience to successfully deliver these functions.

Licensing of market operators of MRLVC

104. There was not a clear majority in favour of supporting licensing entities who wish to undertake market coupling under MRLVC. The most common argument made against licensing was that the entities undertaking market coupling functions under CACM were not licenced, and that relatively light-touch designation was sufficient to regulate the two commercially competitive power exchanges operating in GB.
105. The most common argument in favour of licencing was that licence conditions could be amended relatively flexibly in the future (e.g. to facilitate MRLVC). Certain submissions were in favour of licencing power exchange activities in GB (including coupling activities and MRLVC operation).

These views have been noted and will be taken fully into account during the development of MRLVC.

Next Steps

- We have made clear that we consider a single GB clearing price in the day-ahead timeframe to be highly beneficial in supporting the UK discharge its obligations under the TCA. A single GB clearing price would support the efficient trade of electricity over interconnectors, as well as deliver broader benefits to the GB wholesale electricity market and its participants in trading electricity cross-border as efficiently as possible, as part of and in any case in advance of MRLVC.
- Given no substantive progress has been made towards a voluntary solution to date, and taking full account of the consultation responses and our conclusion on the benefits, we intend to legislate to achieve a single GB clearing price, subject to engagement with the SCE, industry and stakeholders.
- Before progressing with legislation, we will engage with the SCE to discuss the benefits of a single clearing price in our respective day-ahead markets and to ensure both Parties have a shared understanding of how a single GB clearing price will support us in meeting our shared obligations under the TCA. The SCE is designed to ensure the proper functioning of the Energy Title in the TCA and is the appropriate forum to discuss these matters. We will update stakeholders on the outcomes of these discussions through appropriate industry forums in due course.
- In parallel, we plan to engage with industry and stakeholders to understand how the recoupling of the two hourly day-ahead GB auctions, can be successfully designed and implemented. We are disappointed that these arrangements have not progressed voluntarily, particularly given the strong consensus of industry, and would strongly encourage the two power exchanges to work collaboratively to help ensure a solution

resulting in a single GB clearing price is developed and implemented as soon as possible.

- Our engagement with the SCE, industry and stakeholders will ensure we are well placed to make a final decision on progressing legislation to implement a single GB clearing price (subject to parliamentary scrutiny).
- Given the potential benefits of including NSL within any future recoupling arrangements, namely in preventing fragmentation of liquidity in the GB wholesale market and helping maximise efficient cross-border electricity trade over interconnectors, we shall encourage stakeholders to consider how NSL could be involved in the recoupling of the two hourly day-ahead GB auctions.
- The Review of Electricity Market Arrangements (REMA) is currently underway and we shall continue to monitor and consider possible interactions with our recoupling proposals and the TCA.

This consultation is available from: www.gov.uk/government/consultations/re-coupling-great-britain-electricity-auctions-for-cross-border-trade

If you need a version of this document in a more accessible format, please email alts.formats@energysecurity.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.