BEFORE THE ARBITRATION TRIBUNAL

PCA Case No. 2024-45

IN THE MATTER OF AN ARBITRATION

PURSUANT TO ARTICLE 739 OF THE TRADE AND COOPERATION AGREEMENT BETWEEN THE EUROPEAN UNION AND THE EUROPEAN ATOMIC ENERGY COMMUNITY AND THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

- between -

THE EUROPEAN UNION

(“Complainant”)

- and -

THE UNITED KINGDOM OF GREAT BRITAIN AND

NORTHERN IRELAND

(“Respondent”, and together with the Complainant, the “Parties”)

REPLIES OF THE UNITED KINGDOM TO THE RESPONSES BY THE EUROPEAN UNION TO QUESTIONS POSED BY THE TRIBUNAL

10 February 2025

Pursuant to paragraph 3.6 of Procedural Order No. 2 and point 3 of the Tribunal's letter of 30 January 2025, the UK replies to specific points arising from certain of the EU's responses to the Tribunal's written questions received prior to the hearing (Table D) and following the hearing (Table E). Paragraph references are to the EU's written responses unless indicated otherwise. Defined terms in the UK's answers of 5 February 2025 are adopted in this document.

The UK does not repeat its own answers to the Tribunal's questions (including as provided in Tables A, B and C on 5 February 2025) or other submissions that it has already made in writing or orally, which it maintains in full. If any point in the EU's responses is not responded to, that does not mean it is accepted.

In light of the written and oral submissions already made by the Parties, including by way of responses to questions and the replies provided by the UK in the tables below, the UK does not consider it necessary to make any further written submissions (as would have been permitted by paragraph 9.6 of Procedural Order No. 1 and paragraph 9.1 of Procedural Order No. 2). The UK nonetheless remains at the Tribunal's disposal if it wishes to receive any further assistance on any point.

Table D. Replies of the UK to the responses given by the EU to the Tribunal's advance (pre-hearing) questions	
Q ref.	**UK replies**
Advance question 6	The EU states at paragraph 22 that there is "no evidence … that analyses or quantifies fisheries displacement". That is not accurate. There are numerous references throughout the documents where fisheries displacement is analysed. A non-exhaustive list of references was given in the UK's answer to advance question 6. Moreover, the UK provided references to acknowledgements that displacement is difficult to quantify. See, for example, the De Minimis Assessment [**C-0044**], paras. 53-54 [CB/13/173] ("Given the uncertainty associated with possible displacement, it has not been possible to quantify these costs"); English Scientific Report [**C-0045**], p. 34 [CB/15/233] ("It is difficult to make a detailed prediction of displacement effects as the choice of where to fish is subject to multiple influences"); Ministerial Submission of 14 September 2023 [**R-0077**], para. 25 [CB/17/273] ("The impact on EU industry is difficult to quantify and limited information has been provided by respondents to the call for evidence and consultation"). It was likely for these reasons that quantification was not attempted: see e.g. fBRIA [**C-0028**] [CB/28/606] ("There is also no assessment of the potential for these EU vessels to move their fishing of sandeel to other waters and therefore offset the loss of a Scottish waters closure"). The EU argues at paragraph 23 that there is no evidence of vessels "fishing the line" and refers to the Scottish Scientific Report noting that "[t]he information [in Figure 11] is presented as heat maps to avoid inference about specific vessel locations (as these data can be viewed as commercially confidential)." However, this does not in any way impede the use of the heat maps to identify the general area in which vessels fishing for sandeel were operating, and it is clear that in 2021, the last year for which data was available when the report was written, vessels were 'fishing the line' of the closed area in SA 4. Figure 11 also shows some fishing of the line in 2016 [**C-0050**] [CB/23/374]. The English Scientific Report noted the concern with "fish[ing] the line" by specific reference to the closure in SA 4: English Scientific Report, p. 41 [CB/15/240].
Advance question 7	The *Wool Shirts and Blouses* case, relied upon at paragraph 28, does not support the imposition of any reduction in or shifting of the burden of proof in this case.

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	The dispute in that case arose under the Agreement on Textiles and Clothing ("**ATC**") which provided for free trade in garments subject to, among other things, safeguard action which might be taken by the importing state if justified in accordance with Article 6.2 and 6.3. The discussion of the burden of proof in that case (see pp. 13-17) was therefore in a materially different context from the present case. At paragraph 28, the EU quotes from the discussion in the *Wool Shirts and Blouses* case where the WTO Appellate Body said that if one party "adduces evidence sufficient to raise a presumption that what is claimed is true, the burden then shifts to the other party, who will fail unless it adduces sufficient evidence to rebut the presumption." Three points fall to be made in response to that. 1. First, the discussion cannot be divorced from the context in which it was made, which was the Panel's conclusion on the substantive provisions under Article 6 of the ATC, imposing an obligation on the responding party to demonstrate compliance. 2. Second, the formulation by the Appellate Body is in any event not a test of a "prima facie" case – it is whether one party positively has evidence to support its claim so as to raise a presumption in the absence of evidence from the other party. 3. Third, and in that connection, the discussion may be seen simply as a reflection of the way in which evidence is addressed in civil proceedings – i.e. that the claiming party must adduce sufficient evidence to prove its case, and that if the responding party does not provide evidence in rebuttal, the tribunal may draw adverse inferences from that failure. There is no need in order properly to understand that point to resort to any concept of reducing or shifting any burden. The EU therefore reads far too much into the discussion in the *Wool Shirts and Blouses* case, which does not support the unorthodox propositions about burden minimisation and shifting for which it contends. The UK respectfully reminds the Tribunal of its submissions at Transcript Day 3, p. 36, line 9 to p. 42, line 16. Paragraph 33 argues in relation to Claim 3 that "the EU has the burden of showing that its right of full access to UK waters of the North Sea to fish sandeel has been breached" and then "[t]he UK has the burden to prove that the fisheries management measure is consistent with Article 496 TCA, read together with Article 494 TCA". That formulation is circular and distinctly unhelpful to the Tribunal. Claim 3 is avowedly wholly consequential and on that basis it must be for the EU to establish that the UK measures were not in conformity with Article 496, read together with Article 494, as the EU alleges.
Advance question 8.a	At paragraph 34, and at the hearing (Transcript Day 1, p. 46, lines 1-7), the EU provided a very short extract from the Virginia Commentary on UNCLOS. The Tribunal will wish to consider that extract in its fuller context, provided at paragraph 208 of the UK's written submission.
Advance question 9.e.	In paragraph 45 the EU refers to footnote 52 of the TCA, which attaches to Article 356 in Part Two, Heading One (Trade) and says: "For greater certainty, in relation to the implementation of this Agreement in the territory of the Union, the precautionary approach refers to the precautionary principle." The UK notes in this respect that: 1. This case does not concern the implementation of the TCA "in the territory of the Union", so the footnote is irrelevant to this case.

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	2. The footnote has no bearing on the precautionary approach to fisheries management as defined in Heading Five, to which no such footnote is attached. 3. So far as the Tribunal wishes to be informed of the UK's position on the precautionary principle outside the context of Heading Five of the TCA, which broader context the UK does not consider to be relevant to this case, it is recorded in the UK's Written Statement in the Climate Change Advisory Opinion proceedings before ITLOS, which the EU submitted in this arbitration as [**C-0073**] – see paras. 75-77. See also the UK's reply to the EU's written response to additional question 20, below.
Advance question 11	The UK agrees that advice provided by ICES is "scientific advice". The UK disagrees that the "essential attributes of the advice provided by ICES" informs "the scientific and methodological rigour required by Article 496(2)". ICES is referred to in Article 494(3)(c) not to set an objective benchmark for what constitutes "scientific advice", but for the simple reason that it is the entity that is frequently called upon by the Parties to provide advice in the fisheries context.
Advance question 13	In paragraphs 54 and 55, the EU asserts that "the Tribunal must assess a measure in terms of its 'suitability' or 'aptitude' in relation to the objective it pursues" and "must also weigh and balance the benefits and costs". These assertions repeat the EU's error as to the nature of the obligation under Article 496(1) and 494(3) of the TCA. The task of the Tribunal is not itself to conduct a proportionality assessment. It is to determine whether the UK has decided on the measure "having regard to" "applying proportionate … measures". To do that, it must determine whether the UK and Scottish Governments had regard to applying proportionate measures, which will be the case where the constituent factors relevant to a proportionality assessment are considered in good faith. Also at paragraph 55, the EU appears to set out an argument that necessity will always be part of a proportionality assessment ("a measure that is more restrictive of rights than 'necessary' cannot be considered proportionate"). However, the EU then states that it is not arguing that a Party must adopt the least restrictive measure (see also its response to additional question 18). There is a degree of confusion here. The correct interpretation of the term "proportionate … measures" in the TCA does not include a test of necessity: in the context of the TCA necessity and proportionality are different concepts, and the EU is wrong to conflate the two: see UK written submission paras. 349-350; Transcript Day 2, p. 160, line 19 to p. 163, line 23; Transcript Day 3, p. 79, line 19 to p. 81, line 1. See also the UK's reply to the EU's response on additional question 18 below. The EU then adds at paragraph 55 that "one of the differences between a proportionality and a necessity standard, is that the benchmark is not whether another measure would achieve an equivalent contribution to the objective." This point is not developed beyond that or adequately explained anywhere else, although from its position at Transcript Day 1, p. 138, line 7 to p. 139, line 1 and its response to additional question 18, the EU appears to be saying that the Tribunal should ignore whether any alternatives will contribute to the objective, and instead focus on what alternative is the "optimal" one that best balances the rights and obligations of the Parties under the TCA. This argument strays far beyond the bounds of proportionality. As explained at Transcript Day 3, p. 79, line 19 to p. 81, line 1, it is an attack on the UK's chosen level of protection. Thus, despite the EU stating at Transcript Day 3, p. 2, lines 1-4 that it "is not seeking to impeach the UK for seeking to pursue a high level of protection for the ecosystem of which sandeel form part. It

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	is not inviting this Tribunal to do so either", it then states at paragraph 161 of its responses to the Tribunal's questions that sometimes "a Party may no longer obtain its desired level of protection under all circumstances". See also the UK's reply to the EU's response on additional question 18 below. The UK accepts that proportionality includes a weighing of costs and benefits, but that is a different matter to the suggested mandatory consideration and/or adoption of alternatives contended for by the EU, still less any mandatory consideration and/or adoption of alternatives that do not achieve the objectives sought, so might not be thought to be genuine alternatives at all.
Advance question 16	Paragraph 63 argues that "[a] difference in treatment, giving rise to a differential impact that stems exclusively from a legitimate regulatory distinction that is designed and applied in an even-handed manner, would be permissible." That analysis is derived entirely from the trade law context, which is concerned to address the legitimacy of regulatory distinctions in the context of free trade rules and exceptions, in particular in case law under Article 2.1 of the TBT Agreement. It has no application to the question of whether a measure is *de facto* non-discriminatory under Article 494(3)(f) of the TCA (see UK written submission, paras. 358-360), which will depend upon consideration of (i) whether the measure has differential impacts as between vessels of different nationalities and (ii) whether the measure pursues a legitimate regulatory objective. That is the interpretation that affords meaning to the role of regulatory autonomy, which is emphasised in Article 494(3)(f), and that recognises the impact of the different allocation of stock shares in Annex 35 of the TCA. There are no additional requirements of 'exclusivity' or 'even-handedness' (see UK written submission, paras. 357.1 and 357.3). The EU still makes no positive case that the measures challenged actually are discriminatory, or that the UK should so have regarded them. Instead, paragraph 68 makes two observations that the EU considers "relevant". The first of these (para. 68.a.) is to argue that the UK "relied upon the differential impact … as a ground for concluding that the social and economic impacts are minimal". This point draws in an unmeritorious argument on the proportionality limb of Claim 2 (EU's written submission, para. 737; Transcript Day 1, p. 168, line 13 to p. 170, line 2). The UK's response is at paragraph 400.3 of its written submission and Transcript Day 2, p. 171, line 16 to p. 172, line 3. The EU's point is intensely selective and ignores the evidence of wider consideration to which both the UK and the EU referred at the hearing of the economic and social impacts on EU vessels (see also the UK's reply to the EU's response on additional question 16 below). The second (para. 68.b) is to reiterate the assertion that the UK "has not explained its policy choice of commencing the legitimate objective of marine conservation and fisheries management with a fish stock of which the share in Annex 35 TCA is allocated to such a significant proportion to the EU." The assertion is baseless. The UK has very clearly explained by reference to the scientific and decision-making evidence the reason for taking priority action on sandeel given their key role in the North Sea marine food web (see Transcript Day 2, p. 27, lines 1-2; p. 36, lines 19-21; p. 61, line 19 to p. 62, line 1; p. 82, lines 2-23 and references to documents therein). The EU accepts that there is a basis for some such priority action (see para. 500 of its written submission). Moreover, it is important to emphasise that the North Sea shares of the other forage fish stocks singled out by the EU (which do not have the same significance in conservation and fisheries management terms as sandeel) are also overwhelmingly allocated in favour of the EU in Annexes 35-36: 1. Norway pout (North Sea): 77% for the EU, 23% for the UK; 2. Sprat (North Sea): 96.18% for the EU, 3.82% for the UK; and

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	3. Herring (North Sea): 68.41% for the EU, 31.59% for the UK.[1] The objective of the measures was never related to the relative shares in Annex 35, but ecosystem concerns backed by scientific evidence. The EU has failed to make good (or even present) a case that the UK failed to have regard to applying non-discriminatory measures in deciding upon the English and Scottish measures.
Advance question 17	At paragraph 69, the EU states that "[i]t is … for the UK to show that there was 'urgency' warranting the adoption of the measure during the adjustment period established by Annex 38 TCA". That is wrong. The UK does not need to show "urgency" justifying taking a measure in the adjustment period because, as the Parties agree, Annex 38 — which only applies during the adjustment period — is subject to Article 496. That means that Article 496 prevails over Annex 38 to the extent of inconsistency, in this case, to the extent of the measure adopted in conformity with Article 496. The adjustment period therefore does not qualify the right to take such measures under Article 496. That was the balance struck by the Parties when negotiating the TCA from which the EU cannot now resile. The UK repeats its answer given to additional question 2, and its reply to the EU's response on additional question 2. The relevance of the references in the documents to there being an urgent need to adopt measures to improve sandeel and wider marine ecosystem resilience goes to the objective pursued and its importance, which the EU has not challenged (see the transcript references given in the UK's initial answer to advance question 17).

Table E. Replies of the UK to the responses given by the EU to the Tribunal's additional (post-hearing) questions	
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Additional question 2	In paragraph 81, the EU conflates the interpretation of the TCA with what is required to be had "regard to" when deciding on measures under Article 496(1). As regards interpretation, in accordance with Article 4(1) of the TCA (reflecting Article 31(1) of the Vienna Convention), the terms of the TCA are to be accorded their ordinary meaning "in their context and in light of the object and purpose of the agreement".[2] Article 31(2) of the Vienna Convention specifies that a treaty's terms and annexes form part of "context". Annex 38 accordingly forms part of the context in which Article 496 is to be

[1] See UK's written submission para. 422.2 (adopting 2024 figures, but the shares for 2025 and 2026 are the same or materially the same). The proportions for Norway pout and sprat are in Annex 35 [CB/1/53] row 42 and [CB/1/57] row 66. Herring is a trilateral stock (shared with Norway), so the proportion as between the EU and UK is in Annex 36, row 80 in Table A of Annex 36 of the TCA.

[2] The EU in paragraph 81 refers to the "purpose of a provision" rather than the object and purpose of the TCA. That is not what Article 4(1) of the TCA says ("purpose of the agreement") nor what Article 31(1) of the Vienna Convention says ("A treaty shall be interpreted… in the light of its object and purpose"). The UK recalls that the Parties agree that preserving sovereign rights and giving expression to regulatory autonomy is a principal objective of the TCA: see UK written submission, paras. 325-326.

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	interpreted, and vice versa. The terms of Article 496 and Annex 38 therefore need to be read in light of one another. The Parties agree that the manner in which they are to be read in light of one another is that Annex 38 (which applies only during the adjustment period) is subject to Article 496, i.e. Article 496 prevails over Annex 38 to the extent of any inconsistency. In this respect, the UK repeats its answer initially given to additional question 2. As regards application, when a Party is deciding on measures under Article 496(1), it must have "regard to" the relevant Article 494(3) principles, including as regards Article 494(3)(f) the anticipated costs and benefits of a measure. To the extent that the measure gives rise to costs as a result of reduced access, that is taken into account in "having regard to" "applying proportionate… measures". The EU is wrong to suggest, by reference to treaty interpretation principles, that there is a mandatory obligation on the UK to "consider the nature and objectives of the other provisions conferring rights on the EU" every time it decides on a measure under Article 496. That is to impose additional requirements as to what specifically the UK must have "regard to" under Article 496(1), failing which the EU suggests there would be a breach. The EU makes the same point in the last sentence of paragraph 176 (in response to additional question 21) where it states: "Any fisheries management measure that a Party adopts in its waters must be consistent with Article 496 TCA, read together with Article 494 TCA, and must take into consideration the terms and rationale of Annex 38 TCA". This is a repackaging of its argument that the UK is obliged "to balance the rights and obligations" of the Parties under the TCA, which the UK addressed at Transcript Day 3, p. 79, line 19 to p. 81, line 1. There is no support in the TCA for the EU's position. The adjustment period does not qualify in any way the right to take management measures under Article 496.
Additional question 3.a.	The EU asserts that a "parameterised extension to the EwE model of the North Sea has been available since at least 2013". The evidence it relies upon is not any material it has itself adduced but is instead one of the Respondent's exhibits. The EU has misunderstood Exhibit R-0161, as explained at the hearing (Transcript, Day 3, page 47, line 18 to page 48, line 16). The table in that exhibit is not a table describing the existence of an EwE with Ecospace model of the North Sea which is capable of accounting for the distribution of sandeel and its predators; it is a table which provides a generalised overview of the Ecopath with Ecosim modelling software. The table in that exhibit talks about the Ecospace plug-in to the software in the broadest sense of what it can do. It is not stating that an Ecospace model of the North Sea which was capable of taking into account the spatial distribution of both sandeel and its predators was in existence at the time. If it was, the Tribunal might have expected the EU to run simulations using that software and produce them in this arbitration. That the table in Exhibit R-0161 is a broad description of a modelling suite is apparent from the following: 1. P. 80 explains that the table is a "template for summarizing multispecies models". On that page, the row "Generalized/custom" states that the answer should indicate whether the model is developed "only in one region OR [is] a generalized modelling toolbox". 2. P. 81 lists the 'Ecopath with Ecosim (EwE) and Ecospace) as the model (note no reference to the North Sea in the title). In the "Generalized/custom" box, the answer "Generalized toolbox" is given, indicating that it is a generalised modelling suite. That contrasts to the model at p. 86 titled "LeMans ensemble North Sea model" which has "Region of Applicability" listed as "North Sea". 3. The explanation of "Model Type" in p. 81 is at a high level. It refers to recent developments in the software for example. It says nothing about the North Sea.

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	4. Similarly at p. 81 in the row "Data Used", the explanation for Ecospace refers at a high level to the data that would be needed – it does not state that such data is held in respect of the North Sea. 5. On p. 82 the row "Spatial Structure" states "Made explicit in Ecospace – resolution depends on specific application and data". This again confirms that the table is referring broadly to modelling software and that the Ecospace plug-in requires "specific application and data" to be made operational. 6. On p. 82 the row "Estimated parameters" explains that this "Depends on specific EwE framework application for given ecosystem" – again an indication that this is a high-level description of a modelling suite. 7. On p. 83, in the row "Model accessibility" the link is not to an EwE with Ecospace model of the North Sea. It is to a website where the modelling suite can be downloaded. 8. The row "Accepted WGSAM key run" lists "North Sea updated 2011 (ICES, 2011)." This is a reference to the 2011 North Sea EwE Key Run, which the 2015 North Sea EwE Key Run subsequently updated (see [**R-0108**], p. 105). Neither the 2011 North Sea EwE Key Run, nor the 2015 North Sea EwE Key Run contained an Ecospace component (for the 2015 North Sea EwE Key Run see [**R-0108**]). 9. In the row "Examples in ICES Ecoregions" there is a reference to the "North Sea", among others. That is a reference to the 2011 North Sea Key Run (which did not have an Ecospace component). That row indicates that the EwE modelling software has been used in models developed for various other seas listed in that row. 10. The above is in contrast to the description of work being undertaken to develop an Ecospace model of the Celtic Sea at p. 5 of the Exhibit. (That work was continuing in 2015, see **R-0108**, p. 33). If an Ecospace component of the North Sea which accounted for distribution of sandeel and its predators was already operational in 2013 as the EU claims, it doubtless would have been included in the 2015 ICES Key Run. The EU asserts that making the model age/size structured and spatially distributed would be a matter of "adjust[ment] to cover relevant parameters". That implies that relevant parameters already exist in the model and that it would be a simple matter of 'adjusting them'. This is not only inaccurate but is a gross underestimation of the work required to develop a model with those capabilities. The UK makes the following observations without prejudice to its position that the onus is on the EU to provide credible evidence that such a model was "available" to the UK: 1. Splitting seabird functional groups, dividing sandeels into age classes, and developing a spatial dimension are not simple developments. These changes would require the restructuring of the model; it is not (only) a matter of data being available. 2. Splitting seabird groups would require redefining diet compositions, energy demands, and predator-prey interactions in the model, as well as ensuring sufficient data to justify each division. Age-structuring sandeel would not only demand new parameter inputs for growth, mortality, and recruitment but would also introduce complexity in predator-prey interactions, which would likely require the parameters of the other functional groups to be revisited. These changes would change the structure and function of the model, which would have required the model calibration to be revisited.

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	3. Adding spatial structure via Ecospace would be even more complex. To make the model spatially specific for sandeel, one would need to define habitat layers, movement rules, and spatially explicit predator-prey interactions, significantly increasing model complexity. These changes go far beyond simple parameter adjustments; they would require an overhaul of the model's structure, validation, and testing. To give an illustration, the 2015 ICES North Sea EwE Key Run updated the 2011 Key Run in various ways, including splitting seabirds into two groups (**Exhibit R-0108**, p. 105). The 2015 Key Run Report (**Exhibit R-0108**) at pp. 140-171 explains the complex process of recalibrating the model following those changes. An illustration of the importance of such recalibration and its close link with expert opinion is provided at p. 142 of the 2015 Key Run Report where the authors identify a 'dilemma' in which the "prettiest model fit to data did not yield credible behaviour" (which was addressed by making adjustments to other parameters to bring results into a "plausible range"). This illustrates the danger of making significant changes to the model without critically evaluating whether the resulting output is credible. That is the value of the ICES Key Run.
Additional question 3.b.	The EU accepts at paragraph 89 that the English Scientific Report summarises what is understood in the scientific literature about the role and functioning of sandeel, including in relation to the age of sandeel preyed upon and the location of sandeel and its predators. The EU has not, however, explained why the results of the modelling in the English Scientific Report – when understood in the light of that scientific literature (as intended by the authors of the Report – see p. 33 [CB/15/232]) – does not suffice to take into consideration its concerns. As to paragraph 90, the EU implies that the process of translating "key observations from the scientific literature" into an updated or new model is simple and straightforward. It has not proven that to be true. The UK refers to its reply to the EU's response on additional question 3.a. above in that respect. Paragraph 91 states that: "to the extent that a model were to simulate that a prohibition of sandeel fishing in all UK waters of the North Sea may not lead to an increase in the biomass of a given predator, this would be relevant in assessing whether there is a rational or objective relationship between the "scientific advice" invoked by the UK as the base for the sandeel fishing prohibition and the full spatial scope of the measure, which covers all UK waters of the North Sea." This paragraph reveals some of the flaws in the EU's approach to Claim 1. The EU has not used an existing model or developed or built a new one. It simply says that the UK should have further developed the model that it actually used. The EU then says that if such a model as developed, not in existence at the time of decision-making, had predicted that prohibiting fishing "may not lead to an increase in biomass of a given predator", then this would be relevant. As to what it would be relevant to, the EU says that it would be relevant in assessing the relationship between the scientific advice "invoked by the UK" and the "full spatial scope of the measure". What a model that did not exist might or might not have predicted had it existed cannot credibly be said to be relevant to the relationship between the scientific advice that did exist (and on which the UK relied) and the measures that the UK did adopt.

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Additional question 4	At footnote 14 attached to paragraph 98, the EU refers to a passage in the Scottish Scientific Report at page 51, relying on the data from the Woodward et al article from 2019 concerning the mean foraging range and mean maximum foraging range of kittiwakes. The statement quoted in footnote 14 of the EU's submission is that "a typical foraging range would not regularly include foraging outside of the existing closed area". This quote is located in a section of the Report under the heading "Seabird foraging ranges and existing sandeel fishery closed area". It is referring to colonies in and near that closed area and is not stating that seabird colonies more broadly will not regularly forage outside the area closed to sandeel fishing in 2000 (such a proposition would be nonsensical given the broad geographic distribution of kittiwake and other seabird colonies across the UK). The passage quoted by the EU in footnote 14 is in no way inconsistent with or contradicted by the maps showing the foraging ranges of gannet and kittiwake (with Atlantic puffin being similar to kittiwake) produced by the UK in its written submission and referred to at the hearing (Day 2 slides 39-42). They use the same data from the same article. As is evident from Figure 29 on the next page of the Scottish Scientific Report, the passage relied on by the EU is a reference to the mean foraging range of 55km. By contrast, the mean maximum foraging range of 156 km extends almost to the edge of SA4. Since the EU seeks to posit that only a closure based on the foraging range of chick-rearing seabirds would be justified, the UK explained in its written submission (paras. 297-298; Figures 3 and 4) and at the hearing (Transcript Day 2, p. 93 line 7 to p. 95 line 16; slides 39-42) that if a standard deviation is added to the mean maximum so as to cover the area within which most nesting kittiwakes forage (again, with the range of Atlantic puffin being similar), as is done for the different purpose of considering offshore wind turbine projects, then the entire North Sea EEZ of the UK is covered. The EU has not explained why that is anything other than a complete answer to its focus on the foraging range of nesting kittiwakes, in circumstances where the EU has not specified what that foraging range is and what geographical scale of prohibition it would justify. The EU only repeats its point that the UK is relying on something that was not part of the best available scientific advice. The UK is answering the EU's reliance on the foraging range of nesting seabirds. In order to do so, the UK is obviously entitled to go beyond the content of the best available scientific advice it relied on for the purposes of its measure, the justification for which was not limited to seabirds. The UK further notes that the Scottish Scientific Report goes on at p. 53 to discuss the importance of sandeel to seabirds even when they are not nesting and so not constrained by the location of their nests. The EU has also not answered that point. This is all in addition to the more important consideration that the objective of the measures was not limited to seabirds, let alone nesting ones, and the EU accepts that it cannot challenge the objective of the measures. As to paragraph 97, the UK denies that the "flaws and caveats in the model used in the English Scientific Report" are relevant to the Scottish measure, which relied on a different scientific report and did not use primary modelling.
Additional question 5	The UK repeats its answer to Additional Question 3.a above. In respect of para. 105, the UK refers to Transcript, Day 3, p. 49, line 25 to p. 50, line 4 ("[T]he UK refers to the updated model that was used in the English Scientific Report as being aligned with the Key Run. It isn't actually the Key Run"). The UK has already explained why the updates made to the

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	North Sea EwE model do not bring the model out of alignment with the 2015 ICES Key Run (Transcript, Day 3, p. 49, line 18 to p. 50, line 11; UK written submission, para. 239.1). The UK notes that the EU "does not argue that a model need enjoy ICES key-run status" (para. 104) yet at the same time asserts that "ICES would need to assess the updated model used in the English Scientific Report to check whether it can be granted key-run status" (para. 105). The EU, in any event, has provided no evidence as to the process for obtaining Key Run status, nor how time-consuming or resource-intensive such a process would be.
Additional question 6	As to paragraph 109, the EU asserts without proving that non-inclusion of Norwegian catches would lead to an overestimation in the reference point. As to paragraph 110, the EU has misunderstood the issue of the omission of Norwegian catches. The sandeel catches by EU and UK vessels in Norwegian waters (and in EU and UK waters) are accounted for in the publicly available data published by the European Commission's Scientific, Technical and Economic Committee for Fisheries. It is only the location of sandeel caught by Norwegian vessels (whether in the EU, UK or Norwegian waters) that is not accounted for. Without knowing precisely where Norwegian vessels caught sandeel in the North Sea, it is not possible to calculate a reference point that accounts for Norwegian catches. As to paragraph 111, the EU has again not explained how it has arrived at its postulated 39% reference point. The catches referred to in the first sentence of that paragraph do not shed light on how it arrived at that figure in the absence of information about precisely where in the North Sea Norwegian vessels caught sandeel. All the first sentence does is indicate that in some years Norway catches a lot of sandeel and in other years it catches little sandeel, but that information is irrelevant without knowing where in the North Sea Norwegian vessels caught that sandeel.
Additional question 7	The UK refers to its reply to the EU's response on additional question 6 above in that the EU has not established how it has purported to calculate a competing reference point without information as to the location of Norwegian catches in the North Sea. Taking the EU's case at its highest, the reference point postulated by the EU falls within the confidence interval evaluated in the English Scientific Report. The effect of this would be that the solid red line shown on Figure 6 of the English Scientific Report would be just to the right of the current lower end of the confidence interval marked by the dotted red line (Transcript, Day 3, p. 115, lines 2 to 9). In that scenario there would still be predicted biomass increases for predators of sandeel, albeit a percentage point or two smaller than those predicted using the 58% reference point (see the right hand column of Table 3 in the English Scientific Report for predicted biomass increases using the upper and lower bounds of the confidence interval).
Additional question 8	The EU has not explained why it was "unnecessary" for the 2015 ICES Key Run to be size-structured and spatially distributed but necessary for the model used by the English Scientific Report to be.
Additional question 10	The EU has not met its burden of proving the materiality of any "flaws and caveats in the model". As to para. 124(b) the EU asserts that the consequence of the "failure to parametrise the model" is that the simulated biomass responses are "likely overestimations". It has adduced no evidence to that effect. Indeed, the changes the EU suggest may well have predicted greater biomass responses for certain species (see e.g. Caveat 3 in the English Scientific Report, p. 33: "Not accounting for this spatial component could mean we overestimate or underestimate some specific ecosystem impacts").

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Additional question 11	The UK reiterates its initial response to this question. There is no basis for reading the quoted ICES Technical Services Response paragraphs as suggesting that if a particular predator population is able to forage outside a specific sandbank or sandbanks (which the EU calls a "locally depleted sandeel area"), they are not suitable for protection by national fisheries management measures. The UK rejects any implication to that effect in the EU's response at paragraphs 125-127.
Additional question 16	The EU's response raises two issues: one of interpretation and one of application. First, the interpretative issue is whether a Party may permissibly take into account the fact that the other Party's vessels may fish elsewhere or fish other stocks in response to a measure when "having regard to" "applying proportionate … measures" and in so doing, considering the anticipated costs of a measure. What such costs are is plainly a factual assessment. Therefore to the extent that potential mitigation by EU vessels is a factual possibility, it may be taken into account. The degree of weight to be given to it in any given case may vary depending on the probability of its occurrence, the relevant evidence on which that probability is based, and the degree to which any mitigation is capable of being quantified in financial terms. Paragraphs 153-154 of the EU's response, however, appear to maintain the position that the ability for EU fishers to attenuate the economic and social impacts of the UK measures by fishing for sandeel in EU waters or for other stocks is "irrelevant" to the consideration of proportionate measures under Article 494(3)(f). This would seem to read-in an interpretative limit on anticipated facts that can be taken into account, based on the EU's view that there would be a "nullification" of the economic and social benefits that are expected to derive from access to waters under Annex 38.[3] However, the economic and social benefits of access to waters to fish in the TCA are recognised in general terms (see the preamble to Annex 38). There is not a right of full access to fish where such fishing would be contrary to conservation and fisheries management measures decided upon by a Party under Article 496(1), or agreed by the Parties. The rights to access waters to fish granted in Heading Five are therefore to be understood collectively as giving rise to economic and social benefits. They are not to be understood as extending unconditionally to all areas or stocks, since they are subject to management measures. In that context, it is obviously open as a matter of interpretation for a Party, when considering the impact of a measure on another Party, to have regard to the ways in which that impact might be mitigated, including by those affected taking advantage (or fuller advantage) of fishing opportunities that are not affected by the measure. Second, the application issue is what happened in this case. It is important not to lose sight of the fact that the UK and Scottish Governments both did worst-case scenario quantified economic impacts assessments. They identified the annual financial value of the loss of landed fish for EU vessels – that is the value of the fish caught from UK waters (revenue), not the vessels' operating profit (which would have been less, taking into account expenses), and assuming <u>no displacement</u> into other waters or onto other species. The loss in respect of English waters was £41.2 million a year, and the loss in respect of Scottish waters was £3.8 million a year. Both Governments expressly acknowledged that this financial impact would be overestimated

[3] See also EU response to additional question 14, paragraph 59: "It was therefore the economic and social impacts associated with the nullification of the EU's right of full access to UK waters of the North Sea to fish sandeel that the UK was required to identify and weigh against the benefits of the measure (see also the EU's response to additional question 16)."

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	because it was based on revenue and not profit and also because it assumed no mitigation. These were the figures that were presented in the relevant decision-making documents. The references for these assessments are set out in the UK's written statement, paras. 396.1-396.2. In addition, the Ministerial submission of 14 September 2023 in respect of the English measure [**R-0077**] acknowledged that, based on MMO licensing and other data, it is "likely" that EU vessels will be able to fish other stocks in UK waters and to fish sandeel in EU waters [CB/17/273-274] and the Ministerial submission of 26 January 2024 in respect of the Scottish measures [**R-0098**] noted the "likelihood" of a degree of offsetting [CB/26/583]. Those were qualitative observations about some degree of potential mitigation. The highest the conclusion was put was that "those vessels do not rely solely on English waters or solely on sandeel for their fishing activity or revenues" [CB/17/274] (para. 26). The UK therefore had regard to both the full worst-case scenario impact assessment and the potential for some mitigation when coming to its decisions. The EU states at paragraph 155 that "[o]ne cannot simply presume substitution and the effects that such substitution could have on other EU operators that do not fish sandeel" and that if the UK wished to advance the position "it should have undertaken a thorough assessment on how and the wider implications." The EU also states at paragraph 151 that "the extent to which EU operators could mitigate economic losses would be for the UK to prove." That is not correct. All the UK is required to do in "having regard to" "applying proportionate measures" is to consider the anticipated costs of the measure, which may include the possibility of mitigation. Both the UK and Scottish Governments did so, and in fact did so in a way that was favourable to EU vessels by taking into account a worst-case scenario assessment, while acknowledging the potential for some mitigation. In doing so, the UK Government and the Scottish Government were not seeking to disregard the impacts, but to understand their practical implications, which is obviously relevant to any weighing exercise.
Additional question 18	The EU's response has two parts, both of which are problematic. First, the first sentence of paragraph 161 states "[t]he EU does contend that a measure that is more restrictive than 'necessary' to meet its objectives would always be disproportionate". That is an argument that a necessity standard applies, despite the EU's written submission accepting at paragraphs 612-613 that "had the Parties intended to impose a standard of 'necessity' as the benchmark … this term could have been used expressly. Therefore, the choice of the term 'proportionate (…) measures' as opposed to the term 'necessary measure' should be understood as a deliberate choice by the Parties". The correct interpretation of "having regard to" "applying proportionate measures" in Article 496(1) read with Article 494(3)(f) is that it does not require necessity, whether as part of, or in addition to, the concept of "proportionate measures" (see references given in the UK's answer to additional question 18). Second, at paragraph 159 the EU states that its position is not that the UK was required to adopt the least restrictive measure. The way this is reconciled with the first sentence of paragraph 161 appears to be (as explained in the remainder of para. 161) because other measures that are less restrictive than the least restrictive than necessary measure could still be disproportionate. In this sense, on the EU's case, the necessity standard of 'not more restrictive than necessary' presents a ceiling on the measures that can be adopted, but one will never get to that ceiling because "[p]roportionality requires the Party to identify the measure that is optimal from the perspective of the relevant legal community's totality of interests". That sets a second lower ceiling, as the EU explains: "[p]roportionality implies a greater impact on a decision-maker's discretion than a necessity standard." In identifying "the optimal measure", the EU states that the Tribunal (and, as it stated during the hearing, the deciding Party) must "balance the rights and obligations between the Parties". This is a further reformulation of the new argument asserted by the EU at the hearing that the UK was required to balance the rights and obligations of the

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	Parties under the TCA when deciding on the measure. That argument is wrong. This was addressed by the UK at Transcript Day 3, p. 79, line 19 to p. 81, line 1. In addition to the above-mentioned responses already articulated by the UK, the EU's response is fundamentally problematic for a number of further reasons. First, the notion of "the measure that is optimal from the perspective of the relevant legal community's totality of interests" has no basis in any ordinary understanding of proportionality.[4] Even if the Party deciding on a measure under Article 496(1) did have to conduct a proportionality assessment (which the UK does not accept), proportionality does not require a search for the one single option that strikes what the EU considers is the right balance between relevant interests. Rather, it requires selecting a measure that pursues the objective, is apt to contribute to that objective, and is not disproportionate in terms of the weighing of the anticipated costs and benefits of that specific measure (see UK written submission, paras. 339-355). This is not a case where the EU criticises the UK's objective or questions whether the UK measures are "for the purpose" of those objectives or "apt" to contribute towards them: see the EU's written submission at paras. 690-699. Second, from a practical perspective, its formulation is also problematic. It overlooks that, even if a proportionality assessment did have to be carried out (which is not accepted), the weighing exercise involves a consideration of qualitative and non-quantifiable benefits and costs. Such an exercise is not a rigid one that prioritises absolute positions of what is "optimal" or not. It is rather an exercise that accords a wide margin of discretion to the deciding Party, consistently with the preservation of its regulatory autonomy, and within the overall safeguards of the requirements of Article 496 read with Article 494 (the UK set out such safeguards at Transcript Day 3, p. 78, line 7 to p. 79, line 18[5]). Third, the argument appears to disregard the Parties' sovereign rights as coastal States and the important role of (and express emphasis on) regulatory autonomy. This is because an argument that there is one single optimal measure that the UK should have identified and adopted empties any concept of regulatory autonomy of content. It would be a very substantial and undue restriction on a Party's exclusive sovereign rights (and obligation) as the coastal State to manage and conserve the natural resources of its own waters. It also ignores the Parties' shared position that preservation of coastal State sovereign rights and regulatory autonomy is a principal objective of the TCA (see UK written submission, paras. 325-326), which finds expression in: (i) Article 1 of the TCA titled "Purpose", (ii) the preamble to the PCA (recitals 7, 20 and 18), (iii) the preamble to Annex 38 (recital 1), and most importantly, (iv) Article 494(3)(f) itself, which explicitly requires that having regard to proportionate measures be done "while preserving the regulatory autonomy of the Parties".

[4] Cf. e.g. the EU's written submission para. 534 summarising that "a "proportionate …measure" is a measure that has been adjusted and which is "appropriate" in the sense that it is commensurate with the aim it pursues".

[5] In connection with highlighting the restraints on regulatory autonomy referred to in the transcript, the UK rejects the characterisation of its position given by the EU at paragraph 16 of its responses to the Tribunal's questions which is stated in the following terms: "the UK's position that regulatory autonomy has primacy over all other considerations". That is a mischaracterisation of the UK's position, about which it has been clear in its written and oral submissions. The Parties are agreed that compliance with Article 496 read with Article 494 constrains the UK's regulatory autonomy.

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	Fourth, the exercise before the UK authorities was never (as the EU asserts in para. 161) of "one interest extinguishing the other", but of deciding on a measure having regard to proportionate measures. In undertaking that exercise, the UK accepts that consideration of potential alternative measures may be relevant to the weighing of costs and benefits, but not in the prescriptive way the EU alleges. Fifth, the EU reiterates that because it has "asserted" that there would be an alternative and reasonably available measure, the UK must rebut that (para. 165). The UK maintains its rejection of the mandatory relevance of any alternative measure. It also maintains its position that, even if the UK were obliged to have regard to alternative measures (which it did), it cannot suffice for the EU to make such a vague and unevidenced assertion of some other alternative measure (raised after the decision had been taken) and require the UK to disprove it (see in this regard Transcript Day 3, p. 41 line 8 to p. 42 line 13) failing which the UK would be in breach. The EU retains the burden of demonstrating that the UK did not have "regard to" "applying proportionate … measures", which is not met by suggesting a vague and unevidenced alternative measure in arbitral proceedings.
Additional question 20	In paragraph 171, the EU purports to apply Article 356(2) of the TCA in the context of fisheries management and states that "the precautionary approach cannot apply where, despite the absence of adequate scientific information, a Party fails to establish that there are reasonable grounds for concern that there are potential threats of serious or irreversible damage to the environment." This is a new argument by the EU. It did not previously argue that the precautionary approach in the context of Heading Five required demonstration of "reasonable grounds for concern that there are potential threats of serious or irreversible damage to the environment". Article 356(2) of the TCA does not apply in the context of fisheries management so as to establish the requirement that the EU now advances. Article 356(2) appears in Part Two, Heading One (Trade), Title XI (Level Playing Field for Open and Fair Competition and Sustainable Development). It is framed generally as "the precautionary approach". In contrast, in Part Two, Heading Five (Fisheries), Article 494(3)(a) refers to "the precautionary approach to fisheries management". This is a defined term "for the purposes of this Heading" (Article 495(1)) which, as set out in Article 495(1)(b), does not include a threshold of harm requirement. It would be impermissible to broaden this definition specifically agreed for Heading Five by reference to a different provision appearing in a different Heading of Part Two. It is moreover noteworthy that expressions of the precautionary approach in other contexts concerning fisheries also do not include a threshold of harm requirement. In the UNFSA [**CLA-0028**], for example, Article 6(1)-(2) reads as follows: "Article 6 Application of the precautionary approach 1. States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment. 2. States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures." Similarly, the FAO Code of Conduct for Responsible Fisheries [**CLA-0033**], relied on by the EU in this case, states, in Article 7.5.1:

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	"7.5 Precautionary approach 7.5.1 States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures." It is thus not surprising that the Parties to the TCA adopted for the purposes of Heading Five on fisheries the specific definition of "precautionary approach to fisheries management" appearing in in Article 495(1)(b). It does not contain a threshold of harm requirement and there is no basis for reading one in. There is therefore no requirement that such a threshold be objectively established (or be established by the UK) before the precautionary approach is engaged. See also the UK's reply to the EU's response to advance question 9(e).
Additional question 21	As regards the last part of the last sentence of paragraph 176, see the UK's reply to the EU's response to additional question 2.