# Anticipated acquisition by TGS ASA of PGS ASA

## Decision on relevant merger situation and substantial lessening of competition

**ME/7086/24**

The Competition and Markets Authority's decision on relevant merger situation and substantial lessening of competition under section 33(1) of the Enterprise Act 2002 given on 11 June 2024. Full text of the decision published on 9 July 2024.

The Competition and Markets Authority has excluded from this published version of the decision information which it considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [✂]. Some numbers have been replaced by a range, which are shown in square brackets.

## Contents

# SUMMARY

## OVERVIEW OF THE CMA'S DECISION

1. The Competition and Markets Authority (**CMA**) has found that the acquisition by TGS ASA (**TGS**) of PGS ASA (**PGS**) is a relevant merger situation that does not give rise to a realistic prospect of a substantial lessening of competition (**SLC**) within a market or markets in the United Kingdom.

2. TGS agreed to acquire PGS pursuant to a merger agreement signed on 25 October 2023 (the **Merger**). TGS and PGS are together referred to as the **Parties** and, for statements relating to the future, the **Merged Entity**.

### Who are the businesses and what products/services do they provide?

3. TGS and PGS are both global suppliers of scientific data and intelligence to companies active in the energy sector.

4. Marine seismic data enables companies to construct an image of subsurface structures and geological conditions for specific areas of the seafloor. These images are then used to survey the potential for oil and gas extraction or for assessing depleted oil and gas wells for the purpose of storing carbon dioxide which is known as carbon capture and storage (**CCS**). Seismic and other data is also collected and used by companies for the purpose of installing offshore wind infrastructure. Marine seismic data is collected using two main technologies: streamer cables towed on the surface of the sea by bespoke vessels (**streamer**) and ocean bottom nodes (**OBN**) placed on the seafloor.

5. Customers, such as large international energy companies, typically tender for marine seismic data acquisition and processing services. Data is either owned by the customer (**proprietary** data acquisition) or by the seismic data supplier and subsequently licensed to the customer(s) (**multiclient** data acquisition).

### Why did the CMA review this merger?

6. The CMA's primary duty is to seek to promote competition for the benefit of consumers. It has a duty to investigate mergers that could raise competition concerns in the UK, provided it has jurisdiction to do so.

7. In this case, the CMA has jurisdiction to review the Merger because a relevant merger situation has been created. Each of TGS and PGS is an enterprise, they will cease to be distinct as a result of the Merger, and the share of supply test is met as TGS and PGS had a combined share of supply of over 25% by revenue,

with an increment, in the supply of multiclient marine seismic data in the UK in 2023.

8. TGS announced in October 2023 that it had agreed to acquire PGS. The Merger was reviewed by the Norwegian Competition Authority and cleared on 24 April 2024.

## What evidence has the CMA looked at?

9. In assessing this Merger, the CMA considered a wide range of evidence in the round.

10. The CMA received several submissions and responses to information requests from the Parties. This included information about the nature of the Parties' businesses, how competition works in the sector, and revenue and bidding data to understand the Parties' respective positions in the supply of marine seismic data. The CMA also examined the Parties' internal documents, which set out the rationale for the Merger, how they run their businesses, and how they view their rivals in the ordinary course of business.

11. The CMA spoke to and gathered evidence from other companies and organisations to understand better the competitive landscape and to get their views on the impact of the Merger. In particular, the CMA received evidence from marine seismic data competitors and customers and the UK North Sea Transition Authority.

## What did the evidence tell the CMA about the effects on competition of the Merger?

12. The CMA focused on three 'theories of harm' (ie hypotheses about how the Merger could harm competition) to assess whether the Merger would give rise to a realistic prospect of a substantial lessening in competition.

13. First, as a result of **horizontal unilateral effects in the supply of new multiclient marine seismic data in the North Sea Area**.[1] In general terms, the concern under horizontal unilateral effects relates to the elimination of a competitive constraint by removing an alternative that customers could switch to. In this case, the CMA was concerned that the Merger would eliminate competition between two major multiclient seismic data suppliers. The CMA found that while the Parties are two of a limited number of global multiclient seismic data suppliers, they have different offerings, which reduces how closely they compete. For example, PGS has advanced streamer technology (that TGS does not have),

[1] **North Sea Area** is defined as the waters of the UK, Norway, and the Faroe Islands and those countries bordering the North Sea, namely the UK, Ireland, Norway, Denmark, the Faroe Islands, the Netherlands, and Germany.

which is commonly used in mature regions such as the North Sea Area. In addition, the CMA found that the Merged Entity would face strong constraints from the other large competitors, including CGG and SLB, and a strong and growing constraint from Shearwater, all of which are well placed to compete with the Merged Entity, including in the North Sea Area.

14. Second, as a result of **horizontal unilateral effects in the supply of proprietary marine seismic data in the North Sea Area.** The CMA found that the Parties supply different services. TGS almost exclusively acquires proprietary marine seismic data using OBN technology, whereas PGS only acquires marine seismic data using streamers. The CMA found that when seeking proprietary seismic data, customers will have specific requirements for each project that means the two technologies are not substitutable for each other. Given the Parties' different offerings, the CMA found that they do not compete to a material extent in the supply of proprietary seismic data.

15. Third, as a result of **horizontal unilateral effects in the supply of marine seismic data for offshore wind in the North Sea Area.** The CMA found that both Parties are active in this emerging sector, with PGS successfully winning several tenders to date. TGS has also been competing in tenders, but it has not yet won any projects, although evidence suggests it plans to continue trying to expand in this market. Third-party evidence collected by the CMA supported that PGS is a strong and growing player in this segment while TGS is not generally perceived as a strong player. Evidence also showed that there are a range of strong specialist offshore wind data suppliers and the presence of other seismic data suppliers that would constrain the Merged Entity in the market for seismic data for offshore wind following the Merger.

16. Accordingly, the CMA does not believe that it is or may be the case that the Merger may be expected to result in an SLC as a result of any of the three theories of harm described above.

## What happens next?

17. The Merger will therefore **not be referred** under section 33(1) of the Enterprise Act 2002 (the **Act**).

# ASSESSMENT

## PARTIES, MERGER AND MERGER RATIONALE

18. TGS is a global supplier of scientific data and intelligence to companies active in the energy sector and is listed on the Oslo Stock Exchange. TGS primarily offers seismic data surveys and access to its global seismic data library for use by companies active in oil and gas exploration. In recent years, its seismic and other types of data have also been used by companies active in CCS and renewable energy.[2] TGS' global turnover in the year ended 31 December 2022 was approximately £783 million and its UK turnover was approximately £[✂].[3]

19. PGS is also a global supplier of geophysical data and intelligence to companies active in the energy sector and is listed on the Oslo Stock Exchange. It operates a fleet of vessels, including for use in the acquisition of seismic and wind farm data, and has a seismic data library.[4] PGS' global turnover in 2022 was approximately £667 million and its UK turnover was approximately £[✂].[5]

20. Under the merger agreement, PGS will merge with TGS NewCo, a wholly owned subsidiary of TGS. PGS shareholders will receive consideration in the form of shares in TGS.[6] Following completion of the Merger, TGS and PGS shareholders will own approximately two thirds and one third of TGS respectively.

21. The Parties informed the CMA that the Merger was subject to review by the Norwegian Competition Authority, which cleared the Merger on 24 April 2024.[7]

22. The Parties submitted that the main strategic rationale for the Merger is to unite two firms with complementary activities and technologies, creating a stronger geophysical company and data provider, which has a fully integrated offering and may benefit from economies of scale. In addition, the Parties submitted that TGS [✂] access to vessels in order to compete [✂].[8] The Parties also noted [✂] economic outlook within the market and that PGS has not been [✂].[9]

23. The CMA considers that the Parties internal documents broadly support this rationale.

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[2] Final Merger Notice submitted to the CMA on 9 April 2024 (**FMN**), paragraphs 2.4 and 2.5.
[3] FMN, paragraph 6.1. Please note that turnover figures were converted to GBP using an average yearly exchange rate for 2022 of 1 GBP to 1.237188 USD.
[4] FMN, paragraphs 2.10 and 2.11.
[5] FMN, paragraph 5.3. Please note that turnover figures were converted to GBP using an average yearly exchange rate for 2022 of 1 GBP to 1.237188 USD.
[6] FMN, paragraph 2.13.
[7] Case page of the Norwegian Competition Authority.
[8] Parties' response to the Issues Letter, 21 May 2024, paragraph 62.
[9] FMN, paragraph 2.17.

# PROCEDURE

24. The CMA's mergers intelligence function identified the Merger as warranting an investigation.[10]

25. The CMA commenced its phase 1 investigation on 12 April 2024. As part of its phase 1 investigation, the CMA gathered a significant volume of evidence from the Parties. In response to targeted information requests, the CMA received and reviewed internal documents from TGS and PGS. The Parties also had opportunities to make submissions and comment on the CMA's emerging thinking throughout the phase 1 investigation. For example, the CMA invited the Parties to attend an Issues Meeting on 16 May 2024, and the Parties subsequently submitted their views in writing. The CMA also gathered evidence from other market participants, such as customers and competitors, and the UK North Sea Transition Authority. The evidence the CMA gathered has been tested rigorously, and the context in which the evidence was produced has been considered when deciding how much weight to give it. Where relevant, this evidence has been referred to within this Decision.

26. The Merger was considered at a Case Review Meeting.[11]

# JURISDICTION

27. Each of TGS and PGS is an enterprise. As a result of the Merger, these enterprises will cease to be distinct.

28. The Parties submitted that neither the turnover nor the share of supply test is met. PGS generated UK revenue in 2022 of approximately [✂], and as such, the turnover test is not met. The Parties submitted that their combined share of supply is below 25% in the UK (and in the North Sea Area) on any plausible frame of reference.[12]

29. The CMA's guidance is clear that the share of supply test is not an economic assessment of the type used in the CMA's substantive assessment; therefore, the group of goods or services to which the jurisdictional test is applied need not amount to a relevant economic market.[13] The CMA's guidance is also clear that a transaction must have a sufficient UK nexus, such that the share of supply test is met either in the UK or in a substantial part of the UK.[14] In this case, therefore, for

[10] Mergers: Guidance on the CMA's jurisdiction and procedure (**CMA2**), January 2021 (as amended on 4 January 2022), paragraphs 6.4–6.6.
[11] CMA2, page 65.
[12] FMN, paragraphs 5.3 – 5.4. The CMA notes the Parties' estimated shares of supply at Table 4 of the value of multiclient acquisition and licensing of marine seismic data in 2022, which show a combined share of supply of [10-20]% in the UK and [20-30]% in the North Sea Area, with an increment as a result of the Merger in both instances.
[13] CMA2, paragraph 4.59.
[14] CMA2, paragraph 4.60.

jurisdictional purposes the CMA is looking at the Parties' shares of supply in the UK, despite it considering that the geographic market is likely to be wider than the UK.

30. The Parties are both suppliers of marine seismic data covering the geography of the UK's waters. Both Parties supply various types of marine seismic data on a multiclient basis, including data gathered using different types of technology (OBN and streamer). Customers can purchase existing marine seismic data from the Parties' data libraries, or they can fund the acquisition of new data by the Parties.

31. The Parties submitted that including sales from existing libraries within the same description of goods and services as new data acquisition would be ignoring the commercial reality of how these products are sold.[15] The Parties also submitted that given a lack of demand and supply-side substitution, OBN and streamer technology should not be aggregated for the purposes of the share of supply test.[16]

32. The CMA considers that the supply of multiclient marine seismic data, (including existing and new data gathered by any technology), is a reasonable description of a set of goods or services, and one readily recognisable to customers in the industry. As set out at paragraph 41 below, evidence suggests that when customers are looking to purchase marine seismic data they will be faced with a choice between using existing data if available – which can in certain circumstances be reprocessed to a higher quality – or alternatively acquiring new data. The Parties confirmed that customers may obtain existing data from multiclient libraries where available, and submitted that existing data was a constraint on their multiclient data acquisition activities.[17] In relation to OBN and streamer data, both types of data are used for the same purpose (including to survey the potential for oil and gas extraction).[18] While there are demand and supply side differences between the technologies, the CMA's guidance is clear that differentiated products or services can form part of the same group of products or services for the purposes of the share of supply test and that the description of goods or services to which the jurisdictional test is applied may differ from the relevant economic market used for the purposes of the substantive assessment of the merger.[19] The CMA therefore considers it appropriate to include OBN and streamer data, and sales from existing libraries and new data acquisition within the same description of goods and services for the purpose of the share of supply test.

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[15] Parties' response to the Issues Letter, 21 May 2024, paragraph 9.
[16] Parties' response to the Issues Letter, 29 May 2024.
[17] FMN, paragraphs 14.34 and 14.53.
[18] CMA2, paragraph 4.59(c), which notes that the CMA will have regard to whether there are 'sufficient elements of common functionality between the merger parties' activities'.
[19] CMA2, paragraph 4.59(c).

33. As set out in Table 1 below, on the basis of revenue data provided by the Parties and third parties, the Parties have a combined share of supply of [30-40]% (with an increment of [0-5]%) by sales value in 2023 of multiclient marine seismic data in the UK.[20]

34. The CMA therefore currently considers that the share of supply test in section 23 of the Act is met.

**Table 1: Shares of supply of multiclient marine seismic data (OBN and streamer) in the UK for 2023.[21]**

| | 2023 | |
|---|---|---|
| **Supplier** | **Revenue** | **Share** |
| TGS | [✂] | [0-5]% |
| PGS | [✂] | [30-40]% |
| **Parties combined** | [✂] | **[30-40]%** |
| CGG | [✂] | [50-60]% |
| SLB | [✂] | [0-5]% |
| **Total** | **$[✂] million** | **100%** |

35. The CMA therefore currently believes that it is or may be the case that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

36. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 15 April 2024 and the statutory 40 working day deadline for a decision is therefore Tuesday 11 June 2024.

## COUNTERFACTUAL

37. The CMA assesses a merger's impact relative to the situation that would prevail absent the merger (ie the counterfactual).[22]

38. In an anticipated merger, the counterfactual may consist of the prevailing conditions of competition, or conditions of competition that involve stronger or weaker competition between the parties to a merger than under the prevailing

[20] Calculated using data provided by Parties on 21 May 2024 and data provided to the CMA directly from third parties.
[21] Shares of supply include sales of data from both new and existing surveys in the UK.
[22] CMA's Merger Assessment Guidelines (**CMA129**), March 2021, paragraph 3.1.

conditions of competition.[23] In determining the appropriate counterfactual, the CMA will generally focus on potential changes to the prevailing conditions of competition only where there are reasons to believe that those changes would make a material difference to its competitive assessment.[24]

39. In this case, the CMA has not received submissions (or other evidence) suggesting that the Merger should be assessed against an alternative counterfactual.[25] Therefore, the CMA believes the prevailing conditions of competition to be the relevant counterfactual.

# COMPETITIVE ASSESSMENT

## Background and nature of competition

40. Marine seismic data enables companies to construct an image of subsurface structures and geological conditions for particular areas of the seafloor. These images are then used to survey the potential for oil and gas extraction or for assessing depleted oil and gas wells for the purpose of CCS. Similar data can also be used in the installation of offshore wind farms. The renewable energy markets - and the demand for seismic data for these purposes - are relatively new but expected to continue to grow in the UK and elsewhere.[26]

*Seismic data sources*

41. When purchasing seismic data customers can either license existing data, often held in the libraries of seismic data suppliers such as the Parties (**existing multiclient data**)[27] or choose to have new data acquired through a seismic data survey.

42. In the UK and Norway, processed data that is collected by seismic data suppliers may be publicly disclosed after ten years.[28] Some customers may choose to use the public data that is available (and/or to reprocess this data) to meet their

[23] CMA129, paragraph 3.2.
[24] CMA129, paragraph 3.9.
[25] Whilst the Parties submitted that the prevailing conditions of competition is the appropriate counterfactual to assess the Merger against, the Parties noted that the CMA should take into account [✂].
[26] FMN, paragraph 18.3 and footnote 142.
[27] The Parties submitted that there is no competition between their existing multiclient data libraries, as they cover different geographical areas and as such, would not be substitutable with one another from the perspective of a customer, which will require data for a specific location. Data provided suggested only a limited geographical overlap between the Parties, and only a very limited number of customers considered that there could be competition between library data in different locations (namely where a customer is making internal decisions around the allocation of cost and resources between different projects). The CMA has therefore not considered competition between the Parties' libraries as a standalone theory of harm in its competitive assessment, but it has taken into account any advantage to the Parties of having existing multiclient data, and the constraint from this data on the acquisition of new multiclient data, in Theory of Harm 1.
[28] Parties' response to the CMA's Request for Information of 8 March 2024 (**RFI 3**), question 9. In the UK, raw data may be disclosed 15 years following the completion of processing and in Norway, ten years following.

requirements as opposed to purchasing data. However, the CMA understands that the 2018 UK regulations[29] requiring disclosure of data only apply to data acquired or created in 2018 or thereafter. In relation to data acquired prior to 2018, the CMA understands that not all such data has been released.[30]

*Acquisition of new seismic data*

43. Customers often have specific needs relating to the location and quality of the data required for an individual project, which may mean that existing data is not suitable. Seismic data surveys are conducted for a fee on either a multiclient or proprietary basis. Customers will typically issue tenders, with seismic data suppliers bidding for the project, either alone or as part of a joint venture with another supplier. These tenders include either just the acquisition of the data, or the processing of the data too.

44. For proprietary data acquisition, the survey is carried out on behalf of an individual customer who will own exclusive rights to the data once it is collected.[31] Evidence indicates that for some projects, such as for CCS or where the data is to be gathered around existing infrastructure, customers may only be able to obtain proprietary surveys (ie they would be the only customer for the data).[32]

45. For multiclient data acquisition, the seismic supplier will own the rights to the data after it has been collected and the data will be licensed to customer(s).[33] The customer(s) will be subject to various terms and have to pay certain fees under the licence such as data delivery fees and data transfer fees.[34] The seismic supplier will generally invest some of its own capital upfront to conduct the survey but will seek to recover this by securing funding for all or part of the cost through advance sales and late sales to multiple customers of the data that is collected.[35]

*Technologies used to collect seismic data*

46. Seismic data is typically collected using either OBN technology or streamer technology.

47. To collect seismic data using OBNs, nodes are placed on the seafloor by a supply vessel or using a remote operated vehicle. Sound is emitted from the source

[29] The Oil and Gas Authority (Offshore Petroleum) (Disclosure of Protected Material after Specified Period) Regulations 2018.
[30] The CMA also understands that there are exemptions to the requirement to disclose raw data in Norway (Parties' response to the CMA's RFI 3, question 9).
[31] FMN, paragraph 15.9.
[32] Note of a call with a third party, February 2024, paragraph 20.
[33] FMN, paragraph 15.7. When licensing multiclient data, customers will receive only processed data and not raw data.
[34] FMN, footnote 96. Customers may also be offered data under a 'pre-licence', which provides access to the data but is valid only until the customer acquires the rights to explore the relevant area from the government, after which an 'uplift fee' to a full licence will apply.
[35] FMN, paragraph 15.10. The Parties define late sales as revenues from licences entered into after project completion (footnote 95 of the FMN).

vessel which is collected by the OBN receiver. OBN technology can be used to produce a higher quality image of the seafloor (including 2D, 3D, and 4D data),[36] but typically involves a much higher cost than data collection through streamers.

48. Streamer seismic data is collected using a vessel which tows streamer cables close to the surface of the sea, which can be several kilometres long and are fitted with acoustic receivers which pick up signals from a sound emitter which is towed in front of the streamer cables. Different streamer technology, such as multi-sensor technology,[37] can be deployed to generate higher quality streamer data (including 2D, 3D, and 4D data).

*Factors that are important for customers*

49. Evidence gathered by the CMA from customers indicates that data quality is the most important factor when acquiring new seismic data. Linked to this, customers indicated that the necessary technology in order to meet their technical needs was also an important factor.

50. Customers also identified availability, in terms of a supplier having capacity to undertake the survey in the desired timeframe, and the total cost to the customer as the other two most important parameters when choosing suppliers.

## Market definition

51. Where the CMA makes an SLC finding, this must be within any market or markets in the United Kingdom for goods or services. An SLC can affect the whole or part of a market or markets. Within that context, the assessment of the relevant market(s) is an analytical tool that forms part of the analysis of the competitive effects of the merger and should not be viewed as a separate exercise.[38]

52. Market definition involves identifying the most significant competitive alternatives available to customers of the merger parties and includes the sources of competition to the merger parties that are the immediate determinants of the effects of the merger.

53. While market definition can be an important part of the overall merger assessment process, the CMA's experience is that in most mergers, the evidence gathered as part of the competitive assessment, which will assess the potentially significant constraints on the merger parties' behaviour, captures the competitive dynamics more fully than formal market definition.[39]

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[36] FMN, paragraph 15.5.
[37] FMN, paragraph 13.7.
[38] CMA129, paragraph 9.1.
[39] CMA129, paragraph 9.2.

**Product market**

54. Notwithstanding their submissions regarding differences between OBN and streamer technology as set out below, the Parties submitted that the relevant product market is the acquisition of marine seismic data using any technology, including both proprietary and multiclient acquisition.[40] The CMA has considered whether the product market should be segmented by technology or contract type below.

55. The Parties also submitted that despite there being clear distinctions for customers regarding data quality (eg 2D, 3D, or 4D data), all seismic data suppliers are capable of acquiring all levels of data quality, and both OBN and streamer technology is capable of acquiring all of these data levels.[41] In addition, the CMA understands that the data quality required by customers (combined with location-specific factors) will tend to lead to customers specifying the technology to be used,[42] and as such it has not considered segmentation by data quality separately from technology.

*Segmentation by contract type: Proprietary and multiclient*

56. The Parties noted that there are distinctions on both the demand and supply side that may lead to data being acquired on either a proprietary or multiclient basis. For example, the Parties noted differences in terms of data ownership and the sharing of risk.[43] However, the Parties submitted that despite these differences, customers (and suppliers) may substitute between the different contracting types.[44]

57. The evidence that the CMA has seen indicates that there are demand-side differences between proprietary and multiclient seismic acquisition, and some customers do not think that proprietary and multiclient surveys are alternatives. For proprietary acquisition, customers will specify the technology and area that data is to be collected for, depending on their individual needs. The technology and location of multiclient data acquisition, on the other hand, tends to be determined by the seismic data supplier and is designed to be of interest to more than one customer. As such, multiclient data acquisition may not be an alternative to proprietary data acquisition for customers who, for example, are not interested in the specific area determined by the supplier.

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[40] FMN, paragraph 13.3.
[41] FMN, paragraph 13.7. Third party evidence, for example, note of a call with a third party, February 2024, paragraph 31, generally supports that most seismic data suppliers can meet customers' technical requirements.
[42] FMN, 13.7 and footnote 30, where the Parties acknowledge, for example, that due to cost, OBN technology is unlikely to be used for 2D surveys. Location-specific factors might include features such as depth to seafloor or whether the area to be surveyed has obstacles affecting the ability to use certain technology.
[43] FMN, paragraph 13.11.
[44] FMN, paragraph 13.11.2.

58. Under proprietary contracts, the customer will have exclusive rights to the data (including the raw data) once it has been collected, which provides certain advantages such as exclusive access to the data and the ability to reprocess or share the data. One customer told the CMA that it will acquire proprietary data if it wishes to explore a new territory that has not previously been surveyed as exclusive access can give a company an advantage when it comes to extracting oil and gas from that area.[45] The CMA understands that proprietary data is generally more expensive per square kilometre collected than multiclient data.[46] A customer also told the CMA that proprietary data acquisition requires multiple contracts and more internal staff time and cost, compared to multiclient.

59. Finally, as discussed at paragraph 44 above, evidence indicates that for some types of projects such as CCS or where data is to be gathered around existing infrastructure, customers may only be able to obtain proprietary surveys.

60. On the supply-side, the CMA considers that although some suppliers are active across both proprietary and multiclient data acquisition, such as the Parties, there are a number of suppliers who are only active in one or the other.[47] The Parties explained that suppliers active in multiclient data acquisition can be 'asset-light' and sub-contract in order to fulfil customer needs, which is generally not possible in proprietary acquisition where suppliers need to own the technology and assets in order to be competitive.[48]

61. The Parties' internal documents show a clear distinction between proprietary and multiclient seismic data acquisition, tracking industry developments for each separately.[49]

62. Based on the evidence gathered in its investigation, the CMA considers that proprietary and multiclient seismic data acquisition form separate product markets.

*Segmentation by technology: OBN and streamer*

63. The Parties submitted that there are substantial distinctions between data that is acquired through streamers and data that is acquired through OBN technology, and the cost of each technology.[50] The Parties explained that the choice between technologies will be determined principally by the geophysical and geological characteristics of the area and operational conditions, with customers typically

[45] Note of a call with a third party, January 2024, paragraph 22.
[46] FMN, footnote 97.
[47] Some of the competitors who responded to the CMA noted they are only active in either multiclient or proprietary data acquisition.
[48] FMN, paragraph 13.5.
[49] For example, in PGS Internal Document, Annex 141 to the FMN, [✂], May 2023, slide 21, PGS tracks the proprietary market and the multiclient market separately. See also TGS Internal Document, Annex 007 to FMN, TGS' Most Recent Business Plan, page 12.
[50] FMN, paragraphs 13.4 and 13.5.

issuing tenders specifying the technology that is to be used.[51] The Parties submitted that TGS focuses on OBN technology and PGS on streamer technology and each has only won tenders relating to the technology in which it specialises,[52] although TGS does participate in multiclient tenders involving streamer technology.[53]

64. The evidence the CMA received from third parties indicated that there is limited demand-side substitutability between OBN and streamer data acquisition, with OBN being significantly more expensive and providing data of a higher quality. This means that OBN is reserved by customers for use on specific projects when the benefits of obtaining higher quality data justify the significant increased cost of collecting data using this technology.[54] Several responses to the CMA questionnaires indicated that OBN is typically used to cover smaller areas and around existing infrastructure like oil platforms or windfarms.[55] One third party told the CMA that the choice between OBN and streamer technology will be determined by the insights the party is trying to obtain from the geological area.[56] Tender data provided by the Parties and customer evidence showed that customers specify the technology required for a project and only consider bids that meet the technology requirement.[57]

65. Data received by the CMA and statements made by third parties[58] show that streamer technology is typically used for multiclient data acquisition. The CMA understands that streamer technology can be used over larger areas for gathering initial data (ie for initial exploration of interest to multiple customers) whereas OBN tends to be used where only one customer requires access to the data (eg to monitor an existing oil and gas well).[59]

66. Customers generally agreed that currently, and over the next three years, data acquisition for CCS would be undertaken only by streamer because of the high cost of OBN, although a number noted that this part of the market was still developing.[60] Similarly, only streamer technology is currently used for the acquisition of data for offshore wind.[61]

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[51] FMN, paragraph 13.5.
[52] FMN, paragraph 14.9.
[53] For example, as shown by the tender data described at paragraph 14.48 of the FMN.
[54] FMN, paragraph 13.5.
[55] Response to the CMA questionnaire from third parties, April 2024, question 2.
[56] Note of a call with a third party, January 2024, paragraph 9.
[57] For example, the CMA understands that PGS was discounted from a customer tender for not being able to meet the [✂] requirement set out in the tender. See FMN, paragraph 14.18.
[58] For example, note of a call with a third party, January 2024, paragraph 20 and note of a call with a third party, January 2024, paragraph 22.
[59] For example, streamer technology accounts for 83% of new multiclient data acquisition by value globally, and 90% in the North Sea Area for 2023.
[60] Response to the CMA questionnaire from third parties, April 2024, question 2c-e.
[61] Note of a call with a third party, March 2024, paragraphs 7-1.

67. On the supply-side, the ability of suppliers to compete across both technologies depends on whether it is proprietary or multiclient data acquisition. For proprietary data acquisition most suppliers (including the Parties) focus on either OBN or streamer technology,[62] given the different assets required for each, and rarely bid for projects across technologies.[63] As discussed above, for multiclient data acquisition, suppliers more commonly compete regardless of the technology required for the project. The Parties' internal documents support the distinction between OBN and streamer technology, particularly for proprietary data acquisition.[64]

68. Based on the evidence gathered in its investigation, the CMA considers it appropriate to segment both proprietary and multiclient marine seismic data acquisition by technology, given the clear demand-side differences. Whilst the distinction between technologies may be less clearcut for multiclient data acquisition on the supply-side, the Parties only overlap in the acquisition of streamer multiclient marine seismic data (which also represents the majority of the market) and so the CMA carried out its assessment of the impact of the Merger in the supply of streamer multiclient marine seismic data acquisition.

*Segmentation by end use*

69. The CMA also considered whether it was appropriate to segment the market by the end use of the data, ie whether the data is to be used for oil and gas exploration, CCS, or offshore wind purposes.

70. The Parties submitted that for CCS the marine seismic data and the method of collection is no different than for oil and gas exploration. This was supported by third parties who told the CMA that seismic data collected for CCS is the same and uses the same processes as that for oil and gas exploration.[65] The competitor set for gathering data for CCS was considered by third parties to be the same as for oil and gas exploration.

71. For offshore wind, the Parties submitted that specific technology is required to collect seismic data. In particular, the Parties noted that seismic data for offshore wind will be 'ultra-high resolution' 2D or 3D data. Collecting seismic data for

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[62] Given that some seismic players focus their offering on either OBN or streamer acquisition this means that there can be distinct competitor sets competing on either side of the market. This is consistent with the Parties' internal documents which show that they track different competitors for proprietary OBN acquisition and proprietary streamer acquisition. For example, PGS Internal Document, Annex 008 to the FMN, PGS' most Recent Business Plan, October 2022, page 33.
[63] The Parties submitted bidding data on proprietary opportunities in the UK and North Sea Area, which supported their submissions that TGS focuses on OBN proprietary data acquisition and PGS on streamer proprietary data acquisition. The Parties only bid against each other on [✂] proprietary tender in the UK, and only [✂] proprietary opportunities in the North Sea Area, in the last six years.
[64] Certain of the Parties' internal documents monitor separate markets for OBN proprietary data acquisition and streamer proprietary acquisition, whilst monitoring a single market for multiclient data acquisition. For example, see PGS Internal Document, Annex 8 to the FMN, PGS' most Recent Business Plan, October 2022, page 143 and TGS Internal Document, Annex 80 to the FMN, [✂], May 2022, page 6.
[65] Note of a call with a third party, February 2024, paragraph 42.

offshore wind requires advanced streamer technology and specially equipped vessels, and OBN technology is not currently used.[66] Third parties confirmed that seismic data for offshore wind is differentiated from data collected for conventional purposes like oil and gas.[67] Third parties explained that seismic data for offshore wind is typically acquired in shallower waters which require vessels with specific equipment. Third parties also explained that offshore wind requires much higher resolution and that 2D ultra-high-resolution data used for offshore wind is not comparable to 2D seismic data used for oil and gas. Both the Parties and third parties explained that there are a number of specialist data suppliers for offshore wind, and that the competitor set for offshore wind data differs to that for oil and gas (and CCS).

72. In light of the above, the CMA considers it appropriate to include seismic data for CCS within the same market as seismic data for oil and gas. Given the demand and supply-side differences, the CMA has assessed the acquisition of seismic data for offshore wind separately from CCS and oil and gas.

**Geographic market**

73. The Parties submitted that the geographic scope of their activities is global, noting that all major seismic players are active globally and that seismic vessels are moved to different global locations depending on seasonal weather.[68]

74. On the demand-side, the evidence the CMA received indicates that the location that customers require data for will be driven by their oil and gas exploration or renewables strategy. The submissions the CMA received from customers indicate that once a project area has been established, it is generally not substitutable with other locations. Different geographies will require different permits and licences, and may also require specific expertise.[69] For example, third parties indicated that the North Sea Area is a mature basin that has already been extensively explored and surveyed,[70] and the Parties submitted that there is an increasing focus on seismic data that is collected near existing infrastructure.[71] The CMA understands

[66] Note of a call with a third party, March 2024, paragraph 16.
[67] Note of a call with a third party, February 2024, paragraph 42 and note of a call with a third party, March 2024, paragraphs 7-11
[68] FMN, paragraphs 13.18 and 13.19.
[69] The CMA understands that the requirements for obtaining permits can vary between countries. For example, the Parties told the CMA that certain countries can have long lead times for obtaining permits (see FMN, footnote 78). One such requirement may be to provide an Environment and Social Impact Assessment for any surveying or extraction activities. In the UK, seismic suppliers are required to obtain an exploration licence from the North Sea Transition Authority. This licence enables seismic suppliers to explore the full UK continental shelf. If suppliers wish to collect seismic data however, they must also obtain a permit for a particular area from the Offshore Petroleum Regulator for Environment and Decommissioning. The CMA understands that each country is likely to have its own unique regulatory requirements.
[70] Note of a call with a third party, February 2024, paragraph 29 and note of a call with a third party, February 2024, paragraph 40.
[71] FMN, paragraph 14.45. See discussion at paragraph 82 for the impact of this on the expertise and technology required by seismic suppliers.

that, therefore, more advanced technologies (eg multi-sensor streamers) are used in the North Sea Area.

75. On the supply-side, the evidence the CMA has received indicates that suppliers do move their vessels around and compete for projects on a global basis. However, it also appears that some suppliers that compete globally do not often compete in the North Sea Area. The CMA considers that this indicates there may be particular features of the North Sea Area which inhibit certain suppliers from competing and winning work there.[72]

76. With respect to the UK, while it has different rules and regulations to Norway and other parts of the North Sea Area, the CMA understands that operating conditions across these geographies are broadly similar for both customers and suppliers, and the CMA did not receive any other evidence indicating that a narrower geographic market would be appropriate.

77. In light of the above, the CMA considers that the appropriate geographic market is the North Sea Area, but it has also considered global dynamics of competition as relevant.

### CMA's conclusion on market definition

78. The CMA therefore considers that the appropriate markets in which to assess the effect of the Merger are:

    (a) the acquisition of multiclient marine seismic data in the North Sea Area, segmented into data gathered using (i) streamer, and (ii) OBN technology;[73]

    (b) the acquisition of proprietary marine seismic data in the North Sea Area, segmented into data gathered using (i) streamer, and (ii) OBN technology; and

    (c) the acquisition of marine seismic data for offshore wind in the North Sea Area.

## Theories of harm

79. The CMA assesses the potential competitive effects of mergers by reference to theories of harm. Theories of harm provide a framework for assessing the effects

[72] The CMA notes that these features of the North Sea Area may be less relevant for the acquisition of data for offshore wind, where a number of other European countries such as Germany and France have large scale wind capacity either developed or proposed (FMN, paragraph 18.8).
[73] As explained above, the Parties only overlap in the acquisition of streamer multiclient marine seismic data, as PGS does not bid or compete to offer the acquisition of data using OBN technology. As such, there would be no plausible competition concerns in the acquisition of OBN multiclient marine seismic data in the North Sea Area or globally. In any event, as noted above, the vast majority of multiclient data acquisition is conducted using streamer technology.

of a merger and whether or not it could lead to an SLC relative to the counterfactual.[74]

80. In its investigation of this Merger, the CMA focused on the following theories of harm:

(a) horizontal unilateral effects in the supply of new streamer multiclient marine seismic data in the North Sea Area;

(b) horizontal unilateral effects in the supply of proprietary marine seismic data in the North Sea Area, segmented into data gathered using (i) streamer, and (ii) OBN technology; and

(c) horizontal unilateral effects in the supply of marine seismic data for offshore wind in the North Sea Area.

81. Each of these theories of harm is considered below.[75]

**Theory of Harm 1: Horizontal unilateral effects in the supply of new streamer multiclient marine seismic data in the North Sea Area**

82. Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged entity profitably to raise prices or to degrade quality on its own and without needing to coordinate with its rivals.[76] Horizontal unilateral effects are more likely when the parties to a merger are close competitors.[77]

83. The CMA assessed whether it is or may be the case that the Merger may be expected to result in an SLC as a result of horizontal unilateral effects in the supply of new multiclient marine seismic data. The CMA has considered evidence from the Parties (including submissions, internal documents, and sales and bidding data) and from third parties such as competitors and customers. In particular, the CMA has assessed:

(a) the Parties' submissions;

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[74] CMA129, paragraph 2.11.
[75] On the basis of the evidence gathered, the CMA considered at an early stage in its investigation that there are no plausible competition concerns in the supply of marine seismic data processing. Despite the Parties overlapping in the supply of these services, the CMA found that the Parties were not considered to be particularly strong suppliers and there are a number of competitors that supply processing services including other global seismic data suppliers and smaller bespoke suppliers. The CMA also considered that there are no plausible competition concerns as a result of the potential vertical relationship between the Parties' activities as marine seismic data suppliers and PGS' ownership of vessels. The CMA considered whether the Merged Entity could foreclose rivals by removing access to PGS' fleet of vessels but found that PGS does not lease its vessels to any other supplier, which suggests that no other seismic company is reliant on access to PGS' vessels in order to compete. Therefore, the Merged Entity would not have the ability to foreclose rivals by blocking access to its vessels following the Merger.
[76] CMA129, paragraph 4.1.
[77] CMA129, paragraph 4.8.

(b) shares of supply;

(c) bidding data;

(d) internal documents; and

(e) third-party evidence.

*Parties' submissions*

84. The Parties submitted that their internal documents[78] and bidding data[79] suggest that they only compete against each other to a limited extent because they have highly differentiated business models, which means that there have been limited instances where the Parties bid for the same projects for multiclient streamer acquisition.[80] In particular, the Parties submitted that:

(a) TGS operates an asset-light strategy with a focus on multiclient projects in frontier areas with a low proportion of pre-funding. TGS will target areas where it expects an upcoming interest for exploration and where conventional streamers provide adequate data.[81] The Parties submitted that in mature areas – such as the North Sea Area – TGS is not competitive because it does not have access to the requisite technology (such as multi-sensor streamers) or its own vessels.[82]

(b) In contrast, PGS' business model is centred around its direct data acquisition capabilities as it has its own vessels and advanced multi-sensor streamer technology.[83] The Parties noted that PGS has [✂] activity in frontier areas where TGS is active, as PGS lacks the incentive to use its advanced streamer capacity as this technology is too expensive and not needed for customers in these areas.[84] PGS' technology is typically used in mature areas where high quality imaging is required.[85] The Parties also submitted that PGS [✂] advance streamers and therefore typically seeks projects that will attract a higher level of pre-funding.[86]

85. The Parties also submitted that partnering with other seismic suppliers in joint ventures enables TGS to participate in more multiclient tenders than it would be

[78] Parties' response to the Issues Letter, 21 May 2024, page 19, paragraph 64(c).
[79] The Parties submitted that out of 13 multiclient projects in the UK in the last six years, there has been [✂] where they both bid. For [✂], the Parties noted that TGS did not have the technical capabilities to meet the customer's needs (and was unable to partner with any supplier that did). Parties' response to the Issues Letter, 21 May 2024, pages 11-12, paragraph 37.
[80] Parties' response to the Issues Letter, 21 May 2024, pages 10-11, paragraphs 30 and 35.
[81] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraph 30.
[82] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraph 31.
[83] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraph 32.
[84] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraph 32.
[85] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraph 32.
[86] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraph 33.

able to do alone.[87] However, the Parties submitted that this does not increase the competitive constraint TGS exerts on PGS in relation to multiclient opportunities because TGS is an unimportant player in these joint ventures and generally does not contribute anything other than financing.[88] The Parties submitted that for most of the multiclient projects that TGS bids for as part of a joint venture, it would not have the capability to bid on a standalone basis.[89]

86. In addition, the Parties submitted that they face a number of strong competitors that are active in the North Sea Area including CGG, SLB, Shearwater, Aquila (Axis), BGP, PXGEO, Searcher Seismic, and Geox-MCG.[90] The Parties submitted that Shearwater, in particular, is a stronger constraint on PGS in the North Sea Area than TGS and that they expect Shearwater to become even stronger in the next few years.[91] The Parties also submitted that their customers are large energy players who can leverage their buying power to dictate the terms of tenders and contracts.[92]

87. Finally, the Parties noted that TGS has generated [✂] revenue from the supply of new multiclient data acquisition in 2023 in the North Sea Area and only [✂] revenue over a four-year period. The Parties submitted that this supports the position that TGS is a weak competitor in the North Sea Area.[93] Further, the Parties submitted that the bidding data shows that there is little demand for new multiclient seismic data acquisition in the North Sea Area and particularly in the UK.[94]

*Shares of supply*

88. Shares of supply can be useful evidence when assessing closeness of competition, particularly when there is persuasive evidence as to which potential substitutes should be included or excluded or when the degree of differentiation between firms is more limited. In such circumstances, a firm with a higher share of supply is more likely to be a close competitor to its rivals.[95] Where products are more differentiated or customer preferences are more diverse, shares of supply may not provide evidence on the closest alternatives available to the merger firms'

[87] Parties' response to the Issues Letter, 21 May 2024, page 17, paragraph 56.
[88] Parties' response to the Issues Letter, 21 May 2024, page 17, paragraph 57.
[89] Parties' response to the Issues Letter, 21 May 2024, page 17, paragraph 61.
[90] Parties' response to the Issues Letter, 21 May 2024, paragraphs 47 and 64(d).
[91] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraphs 49-54.
[92] FMN, page 6.
[93] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraphs 27-28
[94] Parties' response to the Issues Letter, 21 May 2024, pages 11-12, paragraph 37. The Parties submitted that even if the CMA were to find an SLC, the Merger should qualify for the 'de minimis' exception (as per the CMA's 'Mergers: Exceptions to the duty to refer' guidance (13 December 2018 (CMA64)). The Parties submitted that the value of the UK market for the acquisition of multiclient marine seismic data in 2023 was [✂], and that in future and previous years, the total value of the UK market would be de minimis. The CMA has not had to consider whether the 'de minimis' exception should be applied in this case given it has not found an SLC and so no duty to refer arises.
[95] CMA129, paragraph 4.14.

customers as these may be different from the products that achieve the greatest sales across a wider body of customers.[96]

89. In bidding markets, shares of supply can be volatile. This is because large changes can occur when contracts are awarded, particularly in a market where there is a small number of high value contracts.[97] To allow for this potential variation, the CMA has looked at the shares of supply over a number of years. The CMA gathered revenue data from the Parties and their main competitors for new multiclient data acquisition (ie excluding sales revenue relating to data from existing multiclient libraries) covering the period between 2020 and 2023 and broken down by geographic area (ie North Sea Area and global).

90. The CMA notes that share of supply data reflects the outcome of past tenders and may not therefore accurately reflect current conditions of competition.[98] The CMA has therefore interpreted the shares of supply estimates with caution and in the round with other evidence in the sections below.

91. Table 2 shows the shares of supply of new streamer multiclient data acquisition, from 2020 to 2023. The CMA has not included the smaller suppliers which it gathered data from in Table 2, but it estimates that their new multiclient data revenues would account for less than [0-5]% of the total revenues of the larger suppliers.[99] The Parties submitted that the shares of supply produced by the CMA did not reflect their experience of competitive conditions and submitted that several competitors (Geoex-MCG, BGP, PXGEO, Seabird, Seismic Partner, and Searcher Seismic) should appear as significant constraints.[100] The CMA has considered the competitive constraint exerted by these smaller suppliers in the rest of the competitive assessment below.

[96] CMA129, paragraph 4.15.
[97] The Parties' bidding data shows that in each year from 2020 to 2023, relatively few tenders take place in the North Sea Area, as such each individual tender can result in a large swing in market shares. Source: the CMA analysis of Annex 232 of the Parties' response to the CMA's Request for Information, 4 April 2024 (**RFI 4**), question 6
[98] See, for example, the Parties' response to the CMA's RFI 4, question 5, which notes that revenue is not generated or recognised for accounting purposes at the time of the contract award. This creates a significant mismatch between the bidding data and revenue figures.
[99] The CMA has estimated the size of smaller rivals' revenues by comparing 2023 revenue provided to the CMA by smaller suppliers (including [✂]) with the revenue of the main suppliers. This analysis indicates that the revenues of these smaller suppliers account for less than [0-5]% of the total revenues of the main suppliers. The CMA received data from most of the main suppliers listed by the Parties, in particular those active in the North Sea Area, with the exception of one ([✂]).
[100] Parties' response to the Issues Letter, 21 May 2024, page 10, paragraphs 27-28.

**Table 2: Main suppliers' shares of supply of new streamer multiclient data acquisition, 2020 to 2023.[101]**

| | North Sea Area | | | | Global | | | |
|---|---|---|---|---|---|---|---|---|
| **Supplier** | **2020** | **2021** | **2022** | **2023** | **2020** | **2021** | **2022** | **2023** |
| TGS | [5-10]% | [10-20]% | [10-20]% | [0-5]% | [20-30]% | [20-30]% | [20-30]% | [10-20]% |
| PGS | [30-40]% | [20-30]% | [5-10]% | [40-50]% | [20-30]% | [20-30]% | [20-30]% | [20-30]% |
| **Parties combined** | **[40-50]%** | **[30-40]%** | **[20-30]%** | **[40-50]%** | **[40-50]%** | **[50-60]%** | **[50-60]%** | **[40-50]%** |
| CGG | [40-50]% | [20-30]% | [30-40]% | [40-50]% | [20-30]% | [30-40]% | [20-30]% | [20-30]% |
| Shearwater | [5-10]% | [30-40]% | [40-50]% | [10-20]% | [30-40]% | [10-20]% | [10-20]% | [20-30]% |
| SLB | [0-5]% | [0-5]% | [0-5]% | [0-5]% | [0-5]% | [0-5]% | [5-10]% | [5-10]% |
| **Total** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** |

92. The shares of supply indicate that the market is concentrated, and that the Merged Entity would be one of the largest of four main suppliers in the North Sea Area and globally. PGS had a significant share of supply in the North Sea Area across the relevant period (with the exception of 2022). TGS had a modest market share and tender data (discussed below) shows that it has not won any new streamer multiclient tenders in the North Sea Area since 2020.

93. The shares of supply also indicate that the largest competitors of the Parties are CGG, Shearwater, and SLB. SLB generated [✂] revenue from new streamer multiclient surveys in the North Sea Area during the past four years, and on a global basis SLB was the smallest of the main suppliers.

*Bidding data*

94. The Parties provided global bidding data for 84 new multiclient streamer opportunities covering the period between 2018 and 2023, of which TGS participated in over [✂], and PGS participated in around [✂].[102] Of these opportunities, over two fifths were in the North Sea Area, with PGS participating in more than [✂], and TGS participating in around [✂]. The data also shows CGG

[101] CMA analysis of the Parties' response to the Issues Letter, 21 May 2024, table 1, and third parties' data.
[102] Parties' response to the CMA's RFI 4, Annex 232 - Updated Bidding Data. The CMA notes that [10-20] observations relate to opportunities where [✂] party bid, [5-10] of which were in the North Sea Area.

and Shearwater participating in and also winning a material proportion of overall opportunities in the North Sea Area.[103]

95. The CMA also collected bidding data from a number of major suppliers ([✂]) covering the period between 2018 and 2023 in the North Sea Area, which identified the bids in which these suppliers participated. This information, in addition to the Parties' data, indicates that the main suppliers competing with the Parties in the North Sea Area include CGG, SLB, and Shearwater.

96. The CMA considered the extent to which the Parties overlap when bidding:

(a) In nearly [✂] of the tenders where TGS bid, it did so as a joint venture, and the Parties bid together as part of a joint venture in a material number of opportunities overall (discussed further below).

(b) Excluding the opportunities where the Parties bid in a joint venture together, the Parties competed for the same opportunities a relatively small number of times both globally and in the North Sea Area.

(i) Considering those opportunities for which TGS bid: PGS bid in around [✂] of these both globally and in the North Sea Area.

(ii) Considering those opportunities for which PGS bid: TGS bid in around [✂] globally and around [✂] in the North Sea Area.

97. The CMA also considered the extent to which the Parties lost bids, either to each other or other rivals:

(a) In the North Sea Area TGS lost [✂] of opportunities to PGS, and [✂] to a Shearwater/Ion joint venture. PGS lost [✂] opportunity to a CGG/TGS joint venture, and several opportunities to Shearwater.[104] The bidding data covering the North Sea Area indicates that PGS is a strong competitor, which bids and wins often. On the other hand, TGS does not bid or win often. TGS has not won a multiclient streamer opportunity in the North Sea Area since 2020.

(b) Globally TGS lost a few opportunities to PGS, but it lost significantly more opportunities overall to other competitors, including CGG, Searcher Seismic, Searcher Seismic/Shearwater, and Shearwater/Ion joint ventures. PGS lost a few opportunities to TGS (all involving TGS in a joint venture, with SLB, CGG, and BGP/CGG), but it lost significantly more opportunities to other

[103] The dataset also included four hybrid opportunities in the North Sea Area, which have not been included in the figures and analysis that follows. Of these hybrid opportunities, the Parties both bid in [✂] of these opportunities, with PGS winning [✂] and CGG winning [✂]. In the remaining [✂] opportunities, [✂] Party bid and [✂] were won by a Geoex MCG/Seismic Partner joint venture. (Parties' response to the CMA's RFI 4, Annex 232 - Updated Bidding Data.)
[104] Parties' response to the CMA's RFI 4, Annex 232 - Updated Bidding Data. The figures presented in this paragraph cover any instance in the North Sea Area in which one of the Parties lost a multiclient streamer opportunity.

competitors, including Shearwater, CGG, Searcher Seismic, and Searcher Seismic/Shearwater.[105] This data shows a range of competitors constraining the Parties, all of which the CMA understands are also active in the North Sea Area.[106]

98. The Parties provided detailed additional context for each of the instances where both Parties bid for an opportunity and why one or both of the Parties lost. For example, in relation to the three multiclient streamer opportunities in the North Sea Area for which both Parties bid over the relevant period:

(a) In the [✂] project in the UK where both Parties bid, TGS did not have the advanced technology required or preferred by the customer. PGS won [✂] opportunity, although Shearwater and CGG would have been able to meet these technology requirements.[107]

(b) In the other [✂] projects in the North Sea Area where both Parties bid, TGS bid in joint venture with CGG. PGS won [✂] of the tenders and TGS and CGG won [✂]. For each of these projects, the Parties submitted that the customer had a strong preference for either CGG's or advanced streamer technology, and TGS' role in the bid was to provide financing and therefore it would not have been able to compete effectively against PGS (or CGG) for these opportunities on a standalone basis.[108]

99. The CMA considers these reasons provide context on why the Parties may have competed against each other, and occasionally lost to one another, but show that in many of the instances in which they both bid, they may not have been close competitors, with other rivals having the technology or capabilities required by the customer.

*Impact of joint ventures*

100. The Parties' bidding data shows that, as mentioned in the Background section, suppliers often bid as part of a joint venture. The CMA has assessed how the presence of joint ventures might affect the Merger's impact on competition.

101. The bidding data indicates that in the North Sea Area, TGS bid as part of a joint venture in nearly [✂] of the opportunities it bid for, while PGS only bid [✂] as part

[105] Parties' response to the CMA's RFI 4, Annex 232 - Updated Bidding Data. The figures presented in this paragraph cover any instance globally in which one of the Parties lost a multiclient streamer opportunity.
[106] The CMA notes that the bidding data provided by the Parties only captures whether each Party participated in a tender, and the winner of the tender. It therefore does not capture whether other suppliers bid (and were unsuccessful). For example, data gathered by the CMA from [✂] indicates that it participated in a number of tenders in the North Sea Area during 2018-2023.
[107] Parties' response to the CMA's RFI 4, Annex 232 - Updated Bidding Data. PGS won [✂] ([✂]).
[108] Parties' response to the CMA's RFI 4, Annex 232 - Updated Bidding Data. The CMA notes TGS in partnership with CGG won [✂] ([✂]) whilst PGS won [✂] (2023).

of a joint venture (alongside TGS).[109] PGS [✂] bid in a joint venture when competing against TGS.[110] The Parties also bid in a joint venture together on [✂] globally and once in the North Sea Area.[111]

102. The data also suggests that competitors bid forming joint ventures several times (see paragraph 97 above).

103. The bidding data indicates that, when forming a joint venture with another supplier, TGS usually participates by contributing financing, data management, and/or licensing activities. TGS also sometimes participates by contributing data acquisition, permits, data processing, and/or marketing activities.[112] Joint ventures often combine a supplier that owns streamer vessels with another supplier.

104. Overall, the CMA considers that participating in joint ventures enables TGS to compete for more tenders. At the same time, the competitive constraint attributable to TGS depends on how important TGS is to each individual joint venture. The CMA received mixed evidence from competitors on the importance of TGS in joint ventures, but overall this evidence indicated that TGS is not important in rivals' ability to bid (discussed further in paragraphs 115 to 117 below). Therefore, as TGS does not own (or have access to) its own vessels, the Merger is unlikely to change the number of competitors that PGS (which owns streamer vessels) will face when competing for new multiclient opportunities.

*Conclusion on bidding data*

105. The CMA considers the bidding data shows a small but material overlap between the Parties in terms of bid participation and losing bids to each other. It also shows that there are several rivals, including in particular CGG and Shearwater that are competing with the Parties and regularly winning in the North Sea Area. A closer analysis of the projects in which the Parties both bid indicates important differences in their offerings that may mean they are not competing closely, and that other rivals tend to offer a stronger constraint in a given opportunity compared to the other Party. Whilst the use of joint ventures enables TGS to compete in more opportunities, including against PGS, TGS is not competing with PGS with respect to the supply of vessels, a core strength of PGS' offering in the market.

*Internal documents*

106. The Parties' internal documents indicate that the Parties regularly monitor one another in the multiclient market alongside a handful of other suppliers. However,

[109] TGS bid as part of a joint venture in more than [✂] of the opportunities it bid for globally, whilst PGS bid as part of a joint venture in less than [✂] of the opportunities it bid for globally.
[110] As noted above, PGS and TGS bid forming a joint venture together on some occasions.
[111] The CMA considers there would be no merger effect in relation to joint ventures between the Parties as any bids in the counterfactual entered by the Parties in a joint venture would still take place by the Merged Entity.
[112] Parties' response to the CMA's RFI 4, Annex 232 – Updated Bidding Data.

the Parties' internal documents also indicate that the Parties have different strategies in the multiclient market. For example:

(a) In a TGS board paper from May 2022, TGS tracks PGS' level of revenue from both [✂]. In the same document TGS also tracks PGS' [✂].[113] This benchmarking also monitors two other competitors alongside PGS (CGG and SLB).

(b) Similarly, in a PGS [✂] from November 2023, PGS tracks TGS' [✂] in multiclient marine seismic data acquisition, noting that [✂] and that [✂].[114]

(c) In a PGS business plan from October 2022, PGS identifies TGS and two other competitors – CGG and SLB – as competing in the multiclient market.[115]

107. However, while the Parties appear to track one another closely, there is also evidence in the internal documents that their multiclient offerings are differentiated and that they focus on different types of multiclient projects and locations. For example, a TGS board presentation prepared in 2023 shows that within multiclient, TGS has typically focused on frontier areas while PGS has typically focused on mature regions.[116] Another TGS internal document notes that PGS [✂] infrastructure lead exploration (**ILX**).[117] The CMA notes that the North Sea Area is considered a mature location for oil and gas exploration and so has an increasing need for ILX.[118]

108. The CMA also notes that there is regular tracking of Shearwater in the Parties' internal documents. For example, in the PGS business plan from 2022, PGS tracks [✂] and notes that the [✂].[119] In a TGS benchmarking document from 2022, [✂].[120] The document shows that [✂].[121] Whilst the focus of the tracking of Shearwater is in the context of it being one of the few seismic companies with its own vessels, the CMA notes that Shearwater has only relatively recently started competing in multiclient data acquisition, which may not yet be reflected in the Parties' internal documents.

[113] TGS Internal Document, Annex 079 to FMN, [✂], May 2022, slides 6 and 8.
[114] PGS Internal Document, Annex 223 to FMN, [✂], November 2023, slides 2 and 3.
[115] PGS Internal Document, Annex 008 to FMN, PGS' Most Recent Business Plan, October 2022, slides 31, 33, and 143.
[116] TGS Internal Document, Annex 011 to FMN, [✂], May 2022, slide 5.
[117] TGS Internal Document, Annex 93 to FMN, [✂], September 2022, slide 20. ILX can also be known as 'near field exploration', which aims to enhance oil recovery from existing fields and infrastructure, as opposed to the exploration of new areas.
[118] FMN, paragraph 14.45.
[119] PGS Internal Document, Annex 008 to FMN, PGS' Most Recent Business Plan, October 2022, slide 34.
[120] TGS Internal Document, Annex 078 to FMN, [✂], May 2022, slide 21.
[121] The document also tracks vessels owned by [✂].

109. Alongside the regular tracking of CGG, SLB, and Shearwater in the Parties' internal documents, there are some documents that refer to a wider pool of competitors. For example:

(a) In a TGS board presentation from June 2022, in addition to PGS, TGS tracks several multiclient players including [✂], [✂], [✂], and [✂].[122]

(b) In another TGS internal document, TGS tracks [✂], [✂], and [✂].[123]

(c) In a PGS management document dated May 2023, PGS also tracks a wider pool of multiclient players, including [✂], [✂], [✂], and [✂].[124]

110. The CMA considers that while the Parties' internal documents show that they monitor each other closely, the documents also suggest that they are differentiated and may not compete closely in mature areas like the North Sea Area. In addition, the internal documents show that the Parties monitor a number of alternative players primarily CGG, SLB, and Shearwater, as well as (although to a lesser degree) a number of smaller players.

*Third-party evidence*

*The Parties and their competitors*

111. Customer and competitor responses to the CMA's questionnaires indicate that the Parties are two of a small number of global suppliers of multiclient marine seismic data active in the North Sea Area, but that their offerings are differentiated. Whilst most customers told the CMA that the Parties compete closely, around one third of customers told the CMA that they do not compete closely. When asked whether the Parties had similar or different (ie complementary) offerings, most customers and competitors told the CMA that Parties' offerings were differentiated.

112. In particular, some customers told the CMA that PGS is strong as a vessel owner whilst TGS is strong because of its OBN technology. Customers also pointed towards differences in their business models (with TGS being asset-light) and their financial positions, with TGS in a financially favourable position compared to PGS, affecting the level of risk each of the Parties is able to take (in terms of pre-funding requirements for multiclient projects). One customer told the CMA that compared to PGS, TGS tends to operate in remote geographic areas.[125]

113. Customer and competitor responses to the CMA's questionnaires also indicated that both of the Parties face close competition from a small number of strong

[122] TGS Internal Document, Annex 078 to FMN, [✂], June 2022, slide 3. The CMA understands that TGS acquired the assets of ION in August 2022 (FMN paragraph 4.2).
[123] TGS Internal Document, Annex 078 to FMN, [✂], June 2022, slide 3.
[124] PGS Internal Document, Annex 008 to FMN, [✂], May 2023, slide 41.
[125] Response to the CMA questionnaire from third parties, April 2024, question 4.

global rivals. The vast majority of customers identified CGG as a close competitor to each of the Parties, whilst SLB was identified as a close competitor by around half of all customers. Shearwater was identified by a significant minority of customers, with some considering it a close competitor to the Parties, and others less so because of it not historically having been a supplier in multiclient data acquisition. Of the third parties that viewed the Parties as competitors, the vast majority identified at least three major competitors to the Parties, with a number of other suppliers, such as BGP, Searcher Seismic, and PXGEO, also being mentioned.[126]

114. Some third parties provided additional comments on the Parties' competitors, and the CMA gathered evidence on their current operations and expansion plans. Most customers and competitors told the CMA that CGG is a significant supplier, with some noting its experience and reputation for supplying customers in the UK. One third party told the CMA that CGG engaged in the same activities as PGS and was a close competitor based on its financial position and vessel ownership.[127] Third parties told the CMA that SLB is a strong supplier because of its experience and technology, and that it plans to become more active in acquiring new multiclient data in the North Sea Area.[128] Multiple customers told the CMA that Shearwater is growing in the multiclient market and has the largest available streamer fleet.[129] The CMA also received evidence from third parties that Shearwater has plans to expand in the acquisition of multiclient data.[130]

*Joint ventures*

115. As discussed above, TGS in particular often participates in joint ventures when bidding for multiclient data acquisition projects. The evidence on how important TGS is to winning these bids is mixed. The vast majority of the Parties' competitors, including some of those TGS has entered into joint ventures with before, told the CMA that partnering with TGS was not an important factor in determining whether they win bids. The one example noted was that partnering with TGS can be important in cases where TGS has a unique advantage such as a permit.[131]

116. Despite this, a couple of competitors raised concerns related to joint ventures or partnering. In particular, one competitor noted that post-Merger it would attempt to find alternative partners, however these would likely be inferior to TGS.[132] Another competitor stated that the Merger may result in reduced market access to

[126] Response to the CMA questionnaire from third parties, April 2024, questions 5-7.
[127] Response to the CMA questionnaire from a third party, April 2024, questions 5-7.
[128] Response to the CMA questionnaire from third parties, April 2024, questions 5-7.
[129] Response to the CMA questionnaire from third parties, April 2024, questions 5-7.
[130] Response to the CMA questionnaire from third parties, April 2024, questions 5-7 and 15., Public announcements made by Shearwater on its website. Note of a call with a third party, February 2024, paragraph 24.
[131] Response to the CMA questionnaire from a third party, April 2024, question 7(e).
[132] Response to the CMA questionnaire from a third party, April 2024, question 14.

partnering opportunities for it, and it did not identify any way that it could mitigate the loss of partnerships with TGS in the UK and North Sea Area.[133]

117. The CMA considers overall the evidence indicates that there may be some impact on rivals from an inability to partner with TGS, however these rivals would likely either still be able to bid alone (given the stated lack of importance of TGS to their bid), or could utilise alternative partnering options in order to compete with the Merged Entity.

*Out of market constraints*

118. The CMA also considered third party evidence on out of market constraints including the use of public data, licensing data from existing multiclient libraries, and acquiring a proprietary survey.

119. The CMA received very limited evidence suggesting that out of market constraints would be material in relation to the Merger. In particular:

(a) Only some customers and competitors said that publicly available data is used frequently as an alternative to multiclient library data. Third parties told the CMA that publicly available data tends to be old and offers limited coverage and therefore is not always a suitable alternative to using new seismic data.[134]

(b) The Parties have large multiclient data libraries, including in the North Sea Area. A number of third parties raised concerns that the Merger would result in increased concentration in multiclient data libraries, with around half of multiclient data being owned by the Parties, and the remainder by SLB and CGG.[135] Given the Merged Entity would own the majority of the multiclient library data, the CMA does not currently consider that the licensing of third-party multiclient data would impose a significant competitive constraint post-Merger.[136]

(c) Finally, the CMA considered whether proprietary surveys would offer any competitive constraint post-Merger (the CMA considered the effects of the Merger in relation to proprietary marine seismic data acquisition in paragraphs 123 to 130 below). The CMA has not seen evidence that proprietary surveys would exert a material out of market constraint on multiclient surveys. Further, the Merger would lead to the combination of two

[133] Response to the CMA questionnaire from a third party, April 2024, question 14.
[134] Response to the CMA questionnaire from third parties, April 2024, question 11(b). Response to the CMA questionnaire from a third party, April 2024, question 8(b).
[135] Response to the CMA questionnaire from third parties, April 2024, questions 14 and 15.
[136] The CMA does not consider there to be a merger effect in relation to existing libraries. Libraries are only likely to be alternatives for each and therefore raise competition concerns if they overlap and the overlap between the Parties is minimal. Response to the CMA questionnaire from third parties, April 2024, question 11(b).

of the largest proprietary survey suppliers, with PGS active in streamer and TGS in OBN, and as such the Merged Entity would have a strong position in the supply of proprietary surveys overall.

*Conclusion on third-party evidence*

120. The CMA considers the third-party evidence indicates that, while the Parties are two of a small number of major suppliers in the acquisition of multiclient data, the Parties' offerings are differentiated and sufficient alternative suppliers, in particular CGG, SLB, and Shearwater, will remain to constrain the Merged Entity. TGS competes with PGS though joint ventures, however the evidence on TGS's importance to these joint ventures is mixed, and on balance the CMA considers that suppliers would still be able to compete without partnering with TGS.

*Conclusion on theory of harm 1*

121. The CMA found that while the Parties are two of a small number of global seismic data suppliers, they have differentiated offerings which reduces how closely they compete. For example, PGS has advanced streamer technology (that TGS does not have), commonly used in mature regions such as the North Sea Area. In addition, the CMA found that CGG, SLB, and Shearwater would each exert a strong constraint on the Merged Entity including in the North Sea Area.

122. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the acquisition of multiclient streamer data in the North Sea Area.

**Theory of Harm 2: Horizontal unilateral effects in the acquisition of (i) streamer, and (ii) OBN proprietary marine seismic data in the North Sea Area**

123. The CMA assessed whether it is or may be the case that the Merger may be expected to result in an SLC as a result of horizontal unilateral effects in the acquisition of proprietary marine seismic data using (i) streamer; and (ii) OBN technology. The CMA has considered: (i) the Parties' submissions; (ii) share of supply estimates; (iii) bidding data; (iv) internal documents; and (v) third-party evidence.

124. The Parties submitted that they do not compete in the overall supply of proprietary marine seismic data because the Parties' respective offerings are based on different technologies with different use cases.[137] Specifically, TGS competes for OBN opportunities, whilst PGS competes for streamer opportunities.[138] As

[137] FMN paragraph 13.1, page 27.
[138] FMN paragraph 14.8, page 36.

discussed above in Market Definition, evidence supports a lack of substitutability between the two technologies.

125. The Parties provided estimates of their shares of supply for proprietary acquisition of marine seismic data in 2022 globally and in the North Sea Area.[139] These estimates are consistent with the Parties' submissions that they focus on different technologies. In particular, the estimates indicate that: (i) TGS's share of supply in proprietary streamer data acquisition was less than 1% globally and TGS supplied no streamer acquisition in the North Sea Area; and (ii) PGS did not supply any proprietary OBN data acquisition on any geographic basis.

126. The Parties also provided bidding data for proprietary marine seismic data acquisition covering 2018 to 2023 in the North Sea Area.[140] Apart from a single overlapping hybrid opportunity, TGS exclusively bid on projects using OBN technology, whilst PGS [✂] bid on streamer opportunities.[141] The data also indicates that the competitor set differs between projects requiring OBN or streamer technology. For projects requiring the use of streamers, PGS lost [✂] of its bids to [✂] in addition to losing bids against [✂]. For projects requiring the use of OBN technology, TGS lost [✂] of its bids to [✂] in addition to losing bids against [✂].

127. Internal documents provided by the Parties indicate that the Parties do not view streamer and OBN as competing technologies for proprietary opportunities, and set out a clear separation between OBN and streamer.[142] For example, one document shows PGS is only active in streamer and TGS is only active in OBN. This document also shows some differences in the presence and competitive strength of rivals.[143]

128. Several third parties told the CMA that OBN and streamer proprietary surveys are not alternatives. In particular, some customers told the CMA OBN technology offers higher quality data, which is more useful at the development stage, while streamer is used to cover wider areas. Another customer told the CMA that OBN technology is more expensive compared to streamer. Two customers also told the CMA the Parties do not compete for the same opportunities as TGS competes for OBN, whilst PGS competes for streamer opportunities.[144] The vast majority of customers consider the differences in product characteristics and use cases

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[139] The CMA notes the Parties' data also contained UK shares which the CMA has also considered, however the CMA does not consider this to be the relevant geographic frame of reference. Annex 240, FMN
[140] Annex 232, FMN
[141] In the bidding data [✂] ([✂]) and [✂] ([✂]) are identified as OBN opportunities, however PGS bid with its streamer offering. These opportunities were ultimately awarded on the basis of the OBN offering which is why they are classified this way in the data.
[142] TGS Internal Document, Annex 090 to FMN, [✂]. TGS Internal Document, Annex 011 to FMN, E18 board presentation, September 2023. PGS Internal Document, Annex 008 to FMN, PGS' Most Recent Business Plan.
[143] TGS Internal Document, Annex 090 to FMN, [✂], February 2023. The CMA notes PXGEO and BGP were considered '[✂]' competitors for both streamer and OBN.
[144] Note of a call with a third party, February 2024, paragraph 8, and note of a call with a third party, January 2024, paragraphs 70-71.

between OBN and streamer mean they are not substitutable. For example (OBN is considered high cost providing high quality data compared to streamer). Whilst some customers indicated that in the future OBN and streamer technologies might become alternatives, only one customer told the CMA it believed the costs of OBN would reduce to a level that might make it an alternative to streamer within the next three years.[145] Accordingly, the CMA considers the third-party evidence overall supports limited competition between the Parties in proprietary data acquisition on the basis of the different technologies used.

129. A small minority of customers raised concerns that as a result of the Merger, the price or availability of proprietary data acquisition could go up because the Merged Entity would use its vessels and technology capacity in multiclient work instead of proprietary work. However, the CMA has not seen any evidence indicating that the Merger would change the Parties' incentives to undertake proprietary work. The CMA has also not seen any evidence indicating that the Merger would reduce the availability of vessels or technology, given the presence of other suppliers with these capabilities.

*Conclusion on theory of harm 2*

130. For the reasons set out above, the CMA believes that the Parties are not close competitors for proprietary surveys. There is no material overlap between the Parties as TGS nearly exclusively acquires data using OBN technology and PGS exclusively acquires data using streamer technology. Evidence across sources (the Parties' submissions, shares of supply, bidding data, internal documents, and third-party views) indicates that there is limited substitutability and so competitive interaction between OBN and streamer technology. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the acquisition of (i) streamer, or (ii) OBN proprietary marine seismic data respectively in the North Sea Area.

**Theory of Harm 3: Horizontal unilateral effects in the acquisition of marine seismic data for offshore wind in the North Sea Area and globally**

131. As explained at paragraph 71, seismic data collected for offshore wind is typically much higher resolution than seismic data collected for oil and gas or CCS. The data is typically collected using advanced streamer cables, on specially equipped vessels and is collected at shallower depths than data collected for oil and gas or CCS.[146] The CMA considers that PGS and TGS are both currently active in this space, as explained below.

[145] Responses to the CMA questionnaire from third parties, April 2024, question 1a.
[146] FMN, footnotes 107 and 142.

132. The CMA assessed whether it is or may be the case that the Merger may be expected to result in an SLC as a result of horizontal unilateral effects in the supply of marine seismic data for offshore wind. To do so, the CMA considered evidence from the Parties (including their submissions, internal documents, and sales data) and from competitors and customers.

*Parties' submissions*

133. The Parties submitted that their presence as data suppliers in the offshore wind market is small with PGS having only recently been successful in winning some tenders, and TGS having participated in some tenders but [✂].[147] In the last three years, the Parties submitted that PGS has participated in [✂] bids for offshore wind projects in the North Sea Area, winning [✂] of them. TGS has participated in [✂] which it lost to [✂].[148]

134. The Parties noted that seismic data for offshore wind is typically ultra-high resolution which requires specific streamer technology.[149] The Parties submitted that PGS has successfully entered the market and won bids using its own ultra-high resolution 3D streamer seismic (P-Cable) technology. TGS does not have its own P-cable technology but has a similar technology capable of acquiring high resolution 3D data. The Parties submitted that TGS has [✂] offer its solution for offshore wind but [✂].[150]

135. The Parties submitted that there is a wide range of competitors, including suppliers specifically focused on offshore wind, including established suppliers such as Fugro, Boskalis/Gardline, Geomarine Surveys Systems, Acteon/Terrasound, Geoequip, GEOxyz, Ocean Infinity, and MMT.[151] The Parties compared PGS' revenue of $[✂] million in 2023 from the acquisition of offshore wind data to the $[✂] million figure reported by Fugro for the first half of 2023 as evidence that the Parties have a minimal position in the market and face strong constraints from established suppliers.[152]

*CMA assessment*

136. The CMA considers that while TGS [✂] in the offshore wind market, it has competed for tenders in this segment and so there is already some level of competitive interaction with existing players including PGS.[153] The Parties also acknowledged that TGS has plans to expand in this market, given its high growth

[147] FMN, paragraphs 18.3-18.5.
[148] Parties' response to the CMA's Request for Information, 19 February 2024 (**RFI 2**), question 17 and Annex 241.
[149] FMN, paragraph 18.5, footnote 113.
[150] FMN, paragraph 18.3, footnote 107.
[151] FMN, paragraph 18.5.
[152] FMN, paragraph 18.5, footnote 112.
[153] FMN, paragraph 18.3.

potential.[154] Therefore, the CMA considers that TGS would have continued in its efforts to expand in this segment absent the Merger and that the competitive interaction with PGS may have increased in the future.

137. TGS' internal documents support that it had plans to expand in the offshore wind segment and would likely have continued to do so absent the Merger.[155] However, the documents also evidence that it [✂].[156] In addition, both Parties' internal documents show that they track a wide pool of competitors in the offshore wind segment, including players considered as leading suppliers including Fugro, Gardline, DEME offshore, and Oceaneering.[157]

138. The CMA asked customers and competitors which suppliers they viewed as the strongest players in offshore wind. While PGS was recognised as a strong player by a majority of customers and competitors, TGS was generally identified as a weak player in the offshore wind segment. In addition, third parties identified several competitors as being stronger than TGS. In particular, players such as Fugro and Gardline were consistently identified as the strongest players. Third parties generally identified a wide range of competitors including specialist offshore wind players such as Ocean Infinity and GeoXYZ, as well as established seismic players such as Shearwater and SLB. One offshore wind customer explained that there are around eight suppliers who regularly tender for projects and have the necessary equipment.[158] In addition, no customers or competitors raised specific concerns about the impact of the Merger on the acquisition of data for offshore wind.[159]

*Conclusion on Theory of Harm 3*

139. While the CMA considers that TGS would have continued in its efforts to expand in the offshore wind segment absent the Merger, the evidence indicates that there are multiple suppliers competing in the offshore wind segment including strong and established specialist offshore wind suppliers as well as marine seismic data suppliers such as the Parties. The Merged Entity would therefore continue to face strong competitive constraints.

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[154] FMN, paragraph 18.3, footnote 107.
[155] For example, in TGS' most recent business plan it mentions that it is 'well positioned across the new energy value chain' which includes offshore wind. TGS Internal Document, Annex 007 to FMN, TGS' Most Recent Business Plan, March 2023, page 42.
[156] For example, in a document dated from February 2023 TGS notes that its ambition is to build solutions across the full product lifecycle for offshore wind but that one of the challenges it faces is that [✂]. TGS internal document, Annex 87 to FMN, [✂], February 2023, page 21.
[157] PGS Internal Document, Annex 136 to FMN [✂], page 71 and TGS Internal Document, Annex 87 to FMN, [✂], February 2023, slide 24.
[158] Note of a call with a third party, March 2024, paragraph 5.
[159] One customer raised a general concern on the Merger reducing the number of available options.

140. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the acquisition of marine seismic data for offshore wind in the North Sea Area.

## ENTRY AND EXPANSION

141. Entry, or expansion of existing firms, can mitigate the initial effect of a merger on competition, and in some cases may mean that there is no SLC. The CMA will consider entry and/or expansion plans of rivals who do so in direct response to the merger as a countervailing measure that could prevent an SLC. In assessing whether entry or expansion might prevent an SLC, the CMA considers whether such entry or expansion would be timely, likely, and sufficient.[160]

142. As the CMA has concluded that the merger does not give rise to competition concerns, it is not necessary to consider countervailing factors in this decision.

[160] CMA129, paragraph 8.31.

# DECISION

143. Consequently, the CMA does not believe that it is or may be the case that the Merger may be expected to result in an SLC within a market or markets in the United Kingdom.

144. The Merger will therefore not be referred under section 33(1) of the Act.

**Naomi Burgoyne**
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**Competition and Markets Authority**
**11 June 2024**