



EUROPEAN COMMISSION
DG Competition

***Case M.11138 - TOTALENERGIES /
AIR LIQUIDE / JV***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004
MERGER PROCEDURE**

Article 6(1)(b) NON-OPPOSITION
Date: 15/12/2023

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EUROPEAN COMMISSION

Brussels, 15.12.2023
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PUBLIC VERSION

In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus [...]. Where possible the information omitted has been replaced by ranges of figures or a general description.

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**Subject: Case M.11138 – TOTALENERGIES / AIR LIQUIDE / JV
Commission decision pursuant to Article 6(1)(b) of Council Regulation
No 139/2004¹ and Article 57 of the Agreement on the European Economic
Area²**

Dear Sir or Madam,

- (1) On 10 November 2023, the European Commission received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which L'Air Liquide SA ('Air Liquide', France) and TotalEnergies SE ('TotalEnergies', France) will acquire joint control within the meaning of Articles 3(1)(b) and 3(4) of the Merger Regulation over a newly created joint venture ('JV') (the

¹ OJ L 24, 29.1.2004, p. 1 (the 'Merger Regulation'). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ('TFEU') has introduced certain changes, such as the replacement of 'Community' by 'Union' and 'common market' by 'internal market'. The terminology of the TFEU will be used throughout this decision.

² OJ L 1, 3.1.1994, p. 3 (the 'EEA Agreement').

‘Transaction’).³ Air Liquide and TotalEnergies are hereinafter designated as the ‘Parties’.

1. THE PARTIES

- (2) **Air Liquide**, a company publicly listed on the Paris stock exchange, is a multinational producer and supplier of gases, technologies, and related services for different industries and the health care sector. The Hydrogen Company S.A. (France), a wholly owned subsidiary of Air Liquide, acts as a holding company dedicated to strategic investments and partnerships in the hydrogen-energy field.
- (3) **TotalEnergies**, a company publicly listed on the Paris, New York, London, and Brussels stock exchanges, is a global multi-energy company that produces and markets oil and biofuels, natural gas and green gases, renewable energy, and electricity. TotalEnergies Marketing Services SAS (France), a wholly owned subsidiary of TotalEnergies, is a holding company that provides services to intra-group companies.

2. THE CONCENTRATION

- (4) Pursuant to the draft Joint Venture Agreement, to be concluded between the Parties likely before the end of 2023 (‘JV Agreement’), Air Liquide, through The Hydrogen Company S.A., and TotalEnergies, through TotalEnergies Marketing Services SAS, will create a full-function joint venture for the creation, development, and operation of a retail network of approximately 100 refuelling stations for the distribution of hydrogen (hydrogen refuelling stations or ‘HRS’) to businesses that transport goods on heavy duty vehicles (‘HDV’), such as trucks, buses, and waste collection vehicles. Based on the information provided by the Parties, the JV’s HRS will be installed on major European road corridors in Belgium, the Netherlands, Luxembourg (jointly, ‘Benelux’), France, and Germany (jointly, ‘E5’) in the coming years. In addition, both Parties will transfer to the JV their small number of operational and in-development HRS in the European Union.⁴
- (5) Post-Transaction, each of the Parties will hold 50% ownership interests in, and jointly control, the JV, for the following reasons.

2.1. Joint control

- (6) Under the JV Agreement, each of the Parties will hold 50% of the JV’s share capital and voting rights.⁵
- (7) The JV will be governed by a Board of Directors (‘BoD’) composed of [...].⁶ The BoD will adopt strategic decisions including the approval of the annual business

³ Publication in the *Official Journal of the European Union* C, C/2023/1027, 17 November 2023.

⁴ Most of the operational HRS for HDV in the market, including the Parties’, are pilot stations that are not commercially viable, serving primarily as technology demonstrators. They have been developed by the Parties to demonstrate technological viability and test the functioning of the supply chain. See Form CO, paragraph 303.

⁵ Form CO, paragraph 89.

plan and budget, annual accounts, appointment of senior management, and approval of significant expenditures.⁷

- (8) The BoD's decisions will be subject to [...].⁸ Each of the Parties will therefore have the right to veto strategic decisions.
- (9) If the BoD fails to achieve an affirmative vote on a strategic matter, and this situation threatens the sustainability of the JV and its subsidiaries, a deadlock resolution mechanism may be launched by any of the Parties [...]. [...] initiates a lengthy multi-stage period of discussion and mediation aimed at allowing the Parties to reach an agreement. If an agreement is not reached, Air Liquide might [...] sell its shares in the JV, with TotalEnergies having opportunities to purchase them.⁹
- (10) This outcome is uncertain because (i) it depends on one of the Parties triggering the deadlock procedure [...], (ii) it depends on the Parties not reaching an agreement during the lengthy multi-stage discussion and mediation period, and (iii) the terms and price of such hypothetical sale of Air Liquide's shares in the JV are not previously agreed by the Parties. Since the option to purchase Air Liquide's shares is not expected '*to be exercised in the near future according to legally binding agreements*', the Commission considers that the JV Agreement's deadlock resolution mechanism does not confer sole control on TotalEnergies.¹⁰
- (11) Therefore, as a result of the Transaction, the Parties will jointly control the JV.

2.2. Full-functionality

- (12) The JV will create, develop, and operate a retail network of HRS geared towards HDV on major European road corridors in the E5.
- (13) The JV will have a management dedicated to its day-to-day operations and access to sufficient resources including finance, staff, and assets (tangible and intangible) to conduct its business activities and operate independently.
- (14) Key executives in the [...], based on normal commercial conditions, and will be fully dedicated to the day-to-day operations of the JV. In addition, the JV will have its own independent personnel. [...].¹¹
- (15) The JV will have its own activities that are not limited to those of its shareholders. All HRS that belong to the Parties and which are located on the E5 territories will be transferred to the JV. The JV will construct or purchase additional HRS and relevant assets to further develop its network. It will develop its business following

⁶ Form CO, paragraphs 91 and 93.

⁷ Form CO, paragraph 95.

⁸ Form CO, paragraphs 93-94.

⁹ Form CO, paragraph 96-120.

¹⁰ Commission Consolidated Jurisdictional Notice under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings ('Consolidated Jurisdictional Notice'), (OJ C 95, 16.4.2008, p. 1, paragraph 60).

¹¹ Form CO, paragraph 130-148.

its own strategic plan and management decisions. It will be responsible for defining its own marketing, commercial, and pricing policies.¹²

- (16) The JV will not have a significant supply and purchase relationship with the Parties:
- (a) The JV will manage independently the sourcing of hydrogen for its HRS based on the best market conditions available. It will define its own marketing and commercial policy and will be fully in charge of selling hydrogen to its customers. As such, it will have its own presence on the market.
 - (b) The JV will be free to purchase hydrogen from third parties or from the Parties. All purchases made by the JV from the parents will be at arm's length on the basis of normal commercial conditions.¹³
- (17) Finally, the JV is intended to operate on a lasting basis.¹⁴
- (18) Therefore, post-Transaction, the JV will be a full-function joint venture, within the meaning of Article 3(4) of the Merger Regulation, and jointly controlled by the Parties, within the meaning of Articles 3(1)(b) of the Merger Regulation.

3. UNION DIMENSION

- (19) The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5,000 million (Air Liquide: EUR 29,934 million; TotalEnergies: EUR 266,856 million).¹⁵ Each of them has a Union-wide turnover in excess of EUR 250 million (Air Liquide: EUR [...] million; TotalEnergies: EUR [...] million), but they do not achieve more than two-thirds of their aggregate Union-wide turnover within one and the same Member State. The Transaction therefore has a Union dimension under Article 1(2) of the Merger Regulation.

4. RELEVANT MARKETS

4.1. Introduction

- (20) Hydrogen is an industrial gas¹⁶ used in various economic sectors. It is a compound molecule of two hydrogen atoms, dihydrogen (H₂). In its natural gaseous form, it is only present in the atmosphere in insignificant amounts.
- (21) Hydrogen can be produced using different methods, namely:
- (a) The steam methane reforming process consists in chemically combining methane and water vapour to isolate, on the one hand, H₂, and, on the other hand, carbon dioxide ('CO₂'). The process uses fossil fuels as feedstock, by reforming natural gas or through the gasification of coal. Though it is the

¹² Form CO, paragraphs 149-159.

¹³ Form CO, paragraphs 160-190.

¹⁴ Form CO, paragraphs 191-195.

¹⁵ Turnover calculated in accordance with Article 5 of the Merger Regulation.

¹⁶ Industrial gases are gases used in manufacturing processes, research, healthcare, and related applications.

cheapest method, it produces significant amounts of CO₂. The hydrogen produced using this method will be hereinafter referred to as ‘fossil-based hydrogen’ or ‘grey hydrogen’.

- (b) The steam methane reforming process coupled with Carbon Capture and Storage to capture and impede part of the CO₂ emissions associated with hydrogen production. The hydrogen produced using this method will be hereinafter referred to as ‘fossil-based hydrogen with carbon capture’ or ‘blue hydrogen’.
 - (c) The water electrolysis consists in subjecting water molecules to an electric current to isolate, on the one hand, dioxygen and, on the other hand, H₂. This process does not directly emit CO₂. While this process has the lowest CO₂ footprint, as it only produces CO₂ emissions indirectly, related to the production of electricity used in the process, it is currently the most expensive production process. The hydrogen produced using this method will be hereinafter referred to as ‘electricity-based hydrogen’ or ‘green hydrogen’.
- (22) A further distinction can be made between (i) ‘low-carbon’ and (ii) renewable or clean hydrogen (jointly, ‘decarbonised hydrogen’). The former is defined by the amount of greenhouse gas emissions it produces. It encompasses fossil-based hydrogen with carbon capture and electricity-based hydrogen using grid electricity produced from non-renewable sources. The latter is produced through the electrolysis of water with the electricity generated using renewable sources (*e.g.*, wind, hydro, and solar power). The full life-cycle greenhouse gas emissions of the production of renewable hydrogen are close to zero.
- (23) The development of blue and green hydrogen remains limited, representing only an insignificant part of the supply in the hydrogen market. By way of example, the worldwide production of green and blue hydrogen was less than 1% of the global hydrogen production in 2022, despite growing 5% compared to 2021.¹⁷ In Europe, approximately 90-100% of hydrogen is produced by steam methane reforming using fossil fuels as feedstock.¹⁸
- (24) Regardless of its production process, hydrogen can be used for various applications and end uses, including:
- (a) Industrial applications. Hydrogen used in refining petroleum products, the production of fertilisers, glass production, electronics, metallurgy, and food.
 - (b) Energy. Hydrogen used to power fuel cells to produce electricity to power buildings’ lighting and heating systems.
 - (c) Mobility sector. Hydrogen used to generate electricity in fuel cells, or combusted to produce thermal energy, and power light or HDV, as an alternative to fossil fuels.

While batteries are a suitable technology for light vehicles or urban buses, their lower energy density, compared to fossil fuels, limits their use for long-distance road transport, shipping, or aviation. Hydrogen is a promising fuel

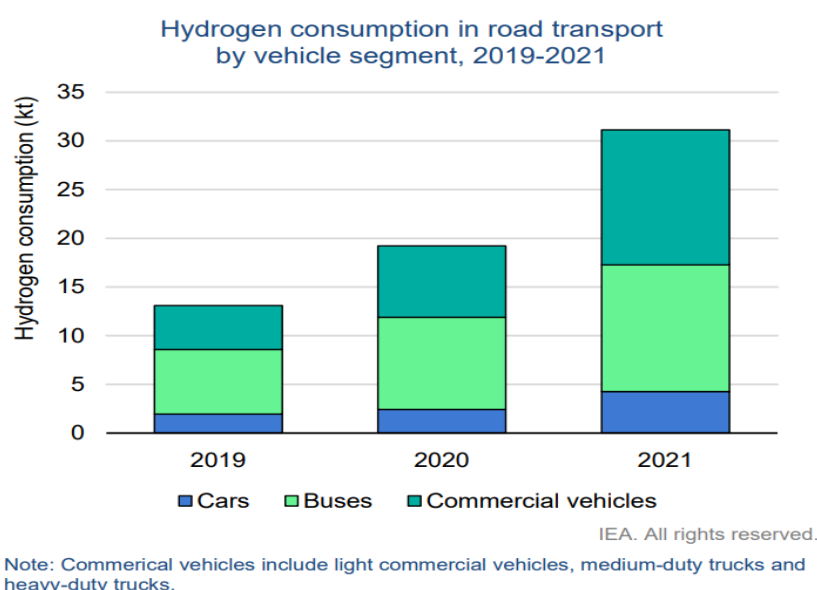
¹⁷ International Energy Agency, Tracking Clean Energy Progress 2023 Report.

¹⁸ European Parliament, Briefing ‘EU hydrogen policy: Hydrogen as an energy carrier for a climate-neutral economy’, April 2021.

for vehicles traveling long distances, typically HDV, as it offers a higher driving range than batteries and quick refuelling. Fuel-cell electric vehicles convert hydrogen to electricity to power their engines.¹⁹

- (25) Hydrogen is currently predominantly used for industrial purposes. The mobility sector only represents small volumes of the total hydrogen demand today in the EU. By way of example, mobility purposes represented only 0.05% of the total hydrogen demand in France, 0.02% in Germany, and 0.007% in Belgium at the end of 2020.²⁰ The Commission’s market investigation confirmed this, with most hydrogen suppliers declaring that, out of all the hydrogen supplied in Europe, less than 10% was for mobility and transport purposes.²¹ Though small, the global demand for hydrogen to be consumed in road transportation has increased approximately by more than 60% between 2020 and 2021, as shown in Figure 1.²²

Figure 1: Global hydrogen demand in the transport sector (2019-2021)



Source: International Energy Agency

- (26) Road freight generates approximately 15% of European CO₂ emissions, of which approximately 70% are emitted by medium- and heavy-duty trucks.²³ Sector-wide decarbonisation requires a transition to low-carbon and renewable fuels. Given that hydrogen is particularly suited for vehicles travelling long distances and it can be produced with no or small quantities of greenhouse gas emissions, green and blue hydrogen can play an important role in the environmental objective of decarbonising the mobility sector. Virtually all the participants in the

¹⁹ Minutes of pre-notification conference call of 11 October 2023, paragraph 7, minutes of pre-notification conference call of 27 July 2023, paragraph 9, and minutes of pre-notification conference call of 12 July 2023, paragraph 8.

²⁰ Form CO, paragraph 415 (based on data of the Fuel Cells and Hydrogen Observatory).

²¹ Replies to eRFI ‘Competitors – Hydrogen Production’, question D.1

²² Moreover, the hydrogen suppliers that participated in the Commission’s market investigation declared that the volume of hydrogen supplied for mobility purposes is expected to grow or grow significantly in the next five years (replies to eRFI ‘Competitors – Hydrogen Production’, question D.2).

²³ Form CO, paragraph 418.

Commission's market investigation confirmed that green and blue hydrogen are expected to contribute to the decarbonisation of the mobility sector.²⁴

- (27) As such, it is expected that the future demand for hydrogen will be primarily based on decarbonised hydrogen, a segment which is expected to grow significantly in the next five years in the EEA.²⁵ The transition towards decarbonised hydrogen is heavily promoted by national and EU subsidies, which are progressively granted on the condition that hydrogen produced is either green or blue.²⁶
- (28) Air Liquide is active in the production and supply of hydrogen. Both Parties have small activities in the product market where the JV will be active, the market for the retail supply of hydrogen to HDV in Belgium, France, Germany, Netherlands, and Luxembourg.

4.2. Bulk supply of hydrogen

4.2.1. Product market definition

- (29) In previous decisions, the Commission considered that there is no substitutability between the various industrial gases from a demand and supply side, with each individual industrial gas being considered a separate product market.²⁷
- (30) Specifically, the market for the production and supply of hydrogen was segmented according to the following modes of supply:²⁸ tonnage supply²⁹ (including through plants with nameplate capacity above 0.3 tonnes per day); supply through small on-site plants (including plants with nameplate capacity below 0.3 tonnes per day); bulk supply³⁰ of volumes below 0.3 tonnes per day (excluding the supply through small on-site plants); and supply in cylinders.³¹
- (31) The Parties consider that, for the purposes of this decision, the relevant market is the market for the production and bulk supply of hydrogen, as the mobility sector will be supplied with smaller volumes of hydrogen, predominantly using trailers.³² Furthermore, they argue that the Commission may leave open the question of whether the following segmentations may be appropriate:

²⁴ Replies to eRFIs 'Competitors – Hydrogen Production', question D.3; 'Customers – Hydrogen Production', question F.3; and 'Hydrogen Production – Information Request for Future New Entrants', question B.1.

²⁵ E.g., minutes of pre-notification conference call of 11 October 2023, paragraph 6, and minutes of pre-notification conference call of 30 October 2023, paragraph 6.

²⁶ E.g., minutes of pre-notification conference call of 17 October 2023, paragraph 8.

²⁷ Case M.8480 – *Praxair/Linde*, paragraph 66. In the same vein, see Case M.1641 – *Linde/AGA*, Case M.1630 – *Air Liquide/BOC*, Case M.3314 – *Air Liquide/Messer Targets*, and Case M.4141 – *Linde/BOC*.

²⁸ Case M.8480 – *Praxair/Linde*, paragraphs 79-86.

²⁹ Defined as sales of large volumes of gas, exceeding 0.3 tonnes per day, typically through pipelines or large on-site plants. See Case M.8480 – *Praxair/Linde*, paragraph 86.

³⁰ Defined as sales of volumes of gas below 0.3 tonnes per day, typically delivered by road or rail tankers, generally in liquid form. See Case M.8480 – *Praxair/Linde*, paragraph 86.

³¹ Case M.8480 – *Praxair/Linde*, paragraph 86.

³² Form CO, paragraph 382. According to the Parties, the mobility sector, including the JV, will be supplied predominantly using trailers. Generally, the volume of hydrogen will be significantly less than the volume typically supplied to companies in the industrial sector.

- (a) Segmentation according to the type of production process used, between grey, blue, and green hydrogen. The Parties point out that the current volume of production of blue and green hydrogen is extremely limited compared to grey hydrogen, representing a minimal part of the supply and demand in the hydrogen market and to the fact that, despite being more expensive to produce, green hydrogen's costs are expected to decrease significantly in the near future.³³
 - (b) Segmentation between, on the one hand, fossil-based hydrogen and, on the other hand, low-carbon and renewable hydrogen. The Parties argue that the Commission may leave this question open, but argue that at least low-carbon and renewable hydrogen are part of the same market because (i) the production processes are similar (the key difference being the source of the electricity used), (ii) preference of customers, especially in the mobility sector, for low-carbon and renewable hydrogen, as a way to decarbonise the sector, and (iii) the fact that most hydrogen suppliers will be offering a mix of both low-carbon and renewable hydrogen to their customers in the coming years.³⁴
 - (c) Segmentation according to the hydrogen's application or end use, between hydrogen used in industrial applications, energy sector, and mobility. The Parties argue that the Commission may leave this question open, noting however (i) the nascent nature of the new decarbonised hydrogen uses and (ii) the role that blue and green hydrogen are intended to play in the decarbonisation efforts in the mobility sector.³⁵
- (32) The Parties conclude that the Commission should assess the effects of the Transaction on the overall market for the bulk supply of hydrogen, with a particular focus on the segment for the bulk supply of decarbonised hydrogen.
- (33) The Commission's market investigation confirmed that there is no substitutability between different industrial gases from either a demand- or a supply-side substitutability perspective. Each individual industrial gas (*e.g.*, oxygen, nitrogen, argon, hydrogen, acetylene, carbon monoxide, carbon dioxide, and nitrous oxide) is therefore considered as a separate product market.³⁶
- (34) The Commission's file generally does not provide any indication suggesting that it would be appropriate to depart from previous decisional practice that segmented the hydrogen market based on modes of supply. In addition, the market investigation's results indicate that the market for the retail supply of hydrogen for HDV will be mostly supplied with small volumes, transported predominantly on trailers.³⁷ The present decision will therefore focus on the bulk supply of hydrogen (*i.e.*, supply of volumes below 0.3 tonnes per day, excluding the supply through small on-site plants).

³³ Form CO, paragraphs 391-407.

³⁴ Form CO, paragraphs 417-436.

³⁵ Form CO, paragraphs 408-416.

³⁶ Replies to eRFIs 'Competitors – Hydrogen Production', question B.1 and 'Customers – Hydrogen Production', question B.1.

³⁷ Pre-notification conference call of 27 July 2023, paragraph 13. As explained in Section 5.1., there is no horizontal overlap in the market for the supply of hydrogen, which is why the downstream retail market is relevant for determining which upstream segments to focus on.

- (35) The Commission’s market investigation reveals that there might be reasons to segment the market according to the type of production process used. Most of the respondents expressed the view that grey hydrogen is not substitutable with green and blue hydrogen, for the following reasons.
- (a) From a demand-side substitutability perspective, respondents have highlighted the following aspects: (i) price differences as grey hydrogen is considerably less expensive to produce than green and blue hydrogen,³⁸ and (ii) clients—especially those in the mobility sector—increasingly preferring green and blue hydrogen, which may contribute to their sustainability goals; and
 - (b) From a supply-side substitutability perspective, respondents have highlighted the following aspects: (i) different production processes and significant investment requirements to install new technologies and plants to produce blue and/or green hydrogen, and (ii) national and EU-level subsidies’ schemes benefitting the production and supply of green and/or blue hydrogen.³⁹ As such, the great majority of respondents consider that it is not easy for a supplier of grey hydrogen to switch to the production of green and/or blue hydrogen and market them in the short term.⁴⁰
- (36) The market investigation’s results are inconclusive on whether blue and green hydrogen are part of the same product market. Most of the surveyed hydrogen customers replied that both types of hydrogen are substitutable because both have the same composition, characteristics, and limited or no CO₂ emissions. However, some respondents pointed out that, because green hydrogen does not directly emit CO₂, contrary to blue hydrogen, public subsidies are typically granted for the production and supply of green hydrogen and, moreover, customers increasingly prefer to source this type of hydrogen instead of blue hydrogen.⁴¹ One hydrogen supplier participating in the Commission’s investigation qualified blue hydrogen as a ‘*temporary solution*’ with ‘*no long-term future*’.⁴² The Commission’s investigation is also inconclusive on the need to distinguish between low-carbon and renewable hydrogen. Considering, however, the similar composition and characteristics of both types of decarbonised hydrogen, the fact that both emit limited or no CO₂ emissions, as well as the small dimension and nascent character of the market for both types of decarbonised hydrogen, the Commission considers that there are currently no robust indications that the decarbonised hydrogen market should be segmented between (i) green and blue hydrogen or (ii) low-carbon and renewable hydrogen.
- (37) Finally, the results of the market investigation were mixed on the need to segment the market for the bulk supply of hydrogen between the different applications or

³⁸ Price differences, however, have been and are expected to continue decreasing. According to the Parties, clean hydrogen will be able to compete on price with grey hydrogen by 2030 (Form CO, paragraph 36).

³⁹ Replies to eRFIs ‘Competitors – Hydrogen Production’, questions B.4-B.13 and ‘Customers – Hydrogen Production’, questions B.4-B.13.

⁴⁰ Replies to eRFIs ‘Competitors – Hydrogen Production’, questions B.12-B.13 and ‘Customers – Hydrogen Production’, questions B.12-B.13.

⁴¹ Replies to eRFIs ‘Competitors – Hydrogen Production’, questions B.6-B.7 and ‘Customers – Hydrogen Production’, questions B.6-B.7.

⁴² Replies to eRFI ‘Competitors – Hydrogen Production’, question B.7.

end uses. Most hydrogen suppliers, however, consider that no segmentation is warranted, as the composition of the hydrogen is the same and there are no reasons, from a technical, quality, production, or logistics perspective, to justify the identification of separate markets based on different end uses.⁴³ In any event, as described in paragraphs (24) and (25), the mobility sector represents insignificant volumes of the total hydrogen demand in the EU. Because of that, as well as the fact that, from a technical and quality perspective, there are no major differences in the technical composition of hydrogen for different end uses, the Commission considers that currently there are no robust indications that it is appropriate to segment these markets based on end uses.

- (38) Based on the above, for the purposes of the present decision, the Commission will thus focus its assessment on the markets for (i) the bulk supply of grey hydrogen and (ii) the bulk supply of decarbonised hydrogen (corresponding to blue and green hydrogen), without further segmentations.

4.2.2. *Geographic market definition*

- (39) In previous decisions, despite acknowledging that the geographic dimension of the markets for the bulk supply of industrial gases, including hydrogen, is likely to be local, the Commission considered a national scope as an appropriate proxy, in view of the overlapping catchment areas and the existence of swap agreements between suppliers to reduce transportation costs, which allow competition to take place at the national level.⁴⁴
- (40) The Commission considered as well that the Benelux countries' territories constitute a single regional market for the bulk supply of industrial gases, including hydrogen.⁴⁵
- (41) The Parties agree with the Commission's decisional practice, arguing that competition takes place at least at a national level, noting that customers may invite hydrogen suppliers to participate in tender procedures covering all of a country or even including neighbouring countries.⁴⁶
- (42) The Commission's file does not provide robust indications suggesting that departing from the precedents would be appropriate. Most of the respondents consider that the market for the bulk supply of hydrogen is likely local, corresponding to catchment areas around each production site, but agree that national markets—including each of the E5 countries—are an appropriate proxy for the geographic dimension of the markets, in view of the existence of overlapping catchment areas.⁴⁷ Most respondents expressing a view also agreed that the Benelux countries' territories constitute a single regional market for the bulk supply of hydrogen because trade between the Benelux countries is profuse,

⁴³ Replies to eRFI 'Competitors – Hydrogen Production', questions B.2-B.3.

⁴⁴ Case M.8480 – *Praxair/Linde*, paragraph 92. See also Case M.3314 – *Air Liquide/Messer Targets*, Case M.1630 – *Air Liquide/BOC*, Case M.1641 – *Linde/AGA* and Case M.4141 – *Linde/BOC*.

⁴⁵ Case M.8480 – *Praxair/Linde*, paragraph 100.

⁴⁶ Form CO, paragraphs 452-453.

⁴⁷ Replies to eRFIs 'Competitors – Hydrogen Production', questions C.1-C.2 and 'Customers – Hydrogen Production', questions C.1-C.2.

due to the topography of the Benelux, and the presence of a highly industrialised area across borders, in particular between Belgium and the Netherlands.⁴⁸

- (43) Based on the above, for the purposes of the present decision, the Commission considers that, for the assessment of the Transaction, the geographic scope of the relevant markets is national, except for the Benelux, which should be considered a single geographic market.

4.3. Retail supply of hydrogen to HDV

4.3.1. Product market definition

- (44) In previous cases, the Commission considered that the market for the retail supply of motor fuel products constituted a distinct product market,⁴⁹ without further need to segment it by type of fuel.⁵⁰ Whether or not to include alternatives to traditional fuels, such as automotive liquified petroleum gas or hydrogen, in the market for the retail supply of motor fuel products has been left open by the Commission.⁵¹

- (45) The Commission has not assessed potential sub-segmentations of the market for the retail supply of hydrogen as fuel.

- (46) However, the Commission considered that a segmentation was warranted for the retail supply of motor fuels between type of customers, namely sales to business/public customers (business-to-business, ‘B2B’) and sales to private customers (business-to-customers, ‘B2C’).⁵² In several decisions, the Commission confirmed that such a segmentation was appropriate due to the different price setting/levels⁵³ (pump price for B2C customers vs. use of fuel cards with negotiated prices and conditions for B2B customers) and diverse needs of each customer group (notably in terms of network coverage, number of on-motorways stations, provision of additional services for B2B customers such as toll payment systems and online invoicing tools, etc.), which also require different sales strategies and different prices.⁵⁴ The Commission has therefore considered that the retail sale of motor fuels to B2B and B2C customers constitute two distinct markets.⁵⁵

4.3.1.1. The Parties’ views

- (47) The Parties consider that the market for the retail supply of motor fuels can be left open as it is not necessary to assess whether to include alternatives to traditional

⁴⁸ Replies to eRFIs ‘Competitors – Hydrogen Production’, questions C.5-C.6 and ‘Customers – Hydrogen Production’, questions C.5-C.6.

⁴⁹ Case M.4919 – *StatoilHydro / ConocoPhillips*, paragraph 22; Case M.9014 – *PKN Orlen / Grupa Lotos*, paragraph 598; Case M.4532 – *Lukoil / ConocoPhillips*, paragraph 7.

⁵⁰ Case M.9014 – *PKN Orlen / Grupa Lotos*, paragraph 598.

⁵¹ Case M.10134 – *EG Group / OMV Germany Business*, paragraph 24.

⁵² Case M.10134 – *EG Group / OMV Germany Business* – paragraph 34; Case M.9014 – *PKN Orlen / Grupa Lotos*, paragraph 627; Case M.7603 – *Statoil fuel and retail / Dansk fuels*, paragraphs 26, 33 and ff.; Case M.7849 – *MOL Hungarian Oil and Gas / ENI Hungaria / ENI Slovenija*, paragraphs 23-28.

⁵³ Case M.7603 – *Statoil fuel and retail / Dansk fuels*, paragraph 34.

⁵⁴ Case M.9014 – *PKN Orlen / Grupa Lotos*, paragraphs 627 and ff.

⁵⁵ Case M.10652 – *MOL / LOTOS PALIWA*, paragraphs 16 and 22.

fuels, such as hydrogen, given the absence of impact of the Transaction on the market.⁵⁶

- (48) Regarding whether the market for the retail supply of hydrogen should be segmented according to the type of hydrogen (*i.e.*, grey, blue or green), the Parties submit that the type of hydrogen distributed in retail stations will depend on local supply conditions and on the conditions set by the subsidy program granted to the concerned stations. The Parties submit that, during an initial period, the JV's HRS will also sell grey hydrogen. However, the percentage of this type of hydrogen sold as of 2026 will be very limited.⁵⁷
- (49) Concerning a potential segmentation of the market for the retail supply of hydrogen between compressed hydrogen at 700 bar and compressed hydrogen at 350 bar, the Parties submit that light vehicles (usually used by B2C customers) have smaller tanks than HDV (generally used by B2B customers) and therefore require the use of more compressed hydrogen at 700 bar, instead of hydrogen compressed at 350 bar for current HDV models.^{58 59} For completeness, the Parties indicate that, while the JV is currently planning to supply only HDV, under the Alternative Fuels Infrastructure Regulation,⁶⁰ the JV might be incentivised to offer at the pump hydrogen compressed at 700 bar, in addition to its 350-bar compressed version.⁶¹ If an HRS is adequately equipped with a 700-bar pump, there is in principle no technical obstacle for that HRS to be used by light vehicles. In practice, however, there will be several practical impediments for such use in terms of location,⁶² station layout (*e.g.*, height and size of the canopies),⁶³ and refuelling dispenser technology.⁶⁴
- (50) Regarding the potential segmentation of the market for the retail supply of hydrogen between B2C and B2B customers, the Parties submit that in the context of the retail supply of hydrogen, such distinction makes sense. Even though B2C and B2B customers' vehicles would be fuelled with the same hydrogen, they require, similarly to conventional fuels, different refuelling station infrastructure, at least different installations, including different canopy heights, station layouts, space and parking requirements, reinforced pavement, etc., and possibly different storage/dispenser pumps.⁶⁵

⁵⁶ Form CO, paragraph 251.

⁵⁷ Form CO, paragraph 252.

⁵⁸ Form CO, paragraph 272.

⁵⁹ Whilst future HDV may use the 700-bar technology, this will still require specific technical adaptations to allow high flow/quantity refuelling.

⁶⁰ Regulation 2023/1804 of the European Parliament and of the Council on the deployment of alternative fuels infrastructure and repealing Directive 2014/94/EU of the European Parliament and of the Council (OJ L234/1, 22.9.2023, p.1).

⁶¹ Form CO, paragraph 253.

⁶² Form CO, paragraphs 273 and 274.

⁶³ Form CO, paragraph 275.

⁶⁴ Form CO, paragraph 275. The process and speed of refuelling a light vehicle is different than the process and speed of refuelling an HDV.

⁶⁵ Form CO, paragraph 272.

(51) For the purposes of the present assessment, the Parties submit that it is not necessary to further segment the market for the retail supply of motor fuels given the lack of anticompetitive effects of the Transaction.⁶⁶

4.3.1.2. The Commission's assessment

(52) The majority of respondents to the market investigation indicated that the retail supply of hydrogen can be distinguished from the retail supply of motor fuels.⁶⁷ Specifically, various respondents indicated that: (i) on the supply side, HRS require dedicated technology in terms of hydrogen storage, compressing, and dispensing; and (ii) on the demand side, there is no substitutability between the two products as hydrogen vehicles can only be fuelled with hydrogen, whereas combustion engine vehicles can only be fuelled with motor fuels.⁶⁸

(53) Concerning a potential segmentation by type of hydrogen, the Commission's market investigation yielded no indications that, from the perspective of an HRS operator, it would be appropriate, at this stage of development of the market, to segment the market for the retail supply of hydrogen between grey, blue, and green hydrogen. This mirrors the Commission's practice of not segmenting the market for the retail supply of motor fuel products by type of fuel.⁶⁹

(54) In relation to the compression of hydrogen, the majority of respondents indicated that there is limited substitutability between hydrogen compressed at 700 and hydrogen compressed at 350 bar.⁷⁰ From a supply-side perspective, hydrogen compressed at 700 or 350 bar appear to require different refuelling protocols and different technical requirements (*e.g.*, different compressor capacity and equipment).⁷¹ From a demand-side perspective, respondents indicated that vehicle tank requirements are different depending on hydrogen compression values: the tank of a hydrogen vehicle which is fuelled with hydrogen compressed at 700 bar is not the same tank as the one on a vehicle fuelled with hydrogen compressed at 350 bar.⁷² Today, most hydrogen HDV have tanks that support hydrogen compressed at 350 bar only.⁷³

(55) The majority of respondents who expressed an opinion also indicated that—similarly to past decisional practice where the Commission considered that the retail supply of motor fuels to B2C customers and the retail supply of motor fuels to B2B customers were not part of the same product market—the market for the retail supply of hydrogen should also be distinguished between the supply to B2C and B2B customers.⁷⁴ In the case at hand, the JV's HRS will be mostly dedicated to HDV which are, in turn, mostly used by the B2B sector.⁷⁵

⁶⁶ Form CO, paragraph 277.

⁶⁷ Replies to eRFI 'Customers – Hydrogen Production', question D.1.

⁶⁸ Replies to eRFI 'Customers – Hydrogen Production', question D.2.

⁶⁹ Case M.9014 – *PKN Orlen / Grupa Lotos*, paragraph 598.

⁷⁰ Replies to eRFI 'Customers – Hydrogen Production', question D.3.

⁷¹ Replies to eRFI 'Customers – Hydrogen Production', questions D.4, D.5, and D.6.

⁷² *Ibid.*

⁷³ Form CO, paragraph 272.

⁷⁴ Replies to eRFI 'Customers – Hydrogen Production', question D.12.

⁷⁵ Form CO, paragraph 272.

- (56) The market investigation results as to whether HRS for HDV and light vehicles should be part of a separate product market were inconclusive. While part of the respondents indicated that HRS for HDV do not constitute a separate product market from HRS for light vehicles, an equally significant number either did not know or disagreed.⁷⁶ The Commission notes however that there are several obstacles for light vehicles to use HRS designed to service HDV. Indeed, an HRS servicing HDV will mainly be equipped with 350-bar pumps while current models of light vehicles require 700-bar pumps. Moreover, HRS servicing HDV are likely (i) to be located closer to logistic hubs than to residential areas and urban centres, (ii) to have station layouts dedicated to HDV drivers (in terms of, *e.g.*, height and size of the canopies), and (iii) to use HDV-specific refuelling dispenser technology.⁷⁷ Consequently, and given that the JV's HRS will mostly serve HDV, the Commission will assess the Transaction's effect on this segment only.
- (57) Based on the above, for the purposes of the present decision, the Commission considers that it may be left open whether the market for the retail supply of motor fuels should be further segmented because the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement, under any plausible product market definition. The Commission's assessment will therefore focus on the affected market for the retail supply of hydrogen (compressed at 350 bar) to B2B customers' using HDV.

4.3.2. *Geographic market definition*

- (58) The Commission has not yet considered the geographic scope of the market for the retail supply of hydrogen to HDV.
- (59) However, the Commission has previously considered the geographic scope of the market for the retail supply of motor fuels. In that context, contrary to the retail sale of motor fuel products for B2C customers which may take place both at a national and local level,⁷⁸ sales to B2B customers are essentially national because fuel cards are issued for national consumption, with prices either set nationally or with a fixed reduction to the local price and covering a nation-wide network of petrol stations.⁷⁹ The Parties consider that, unlike the traditional fuel retail markets, which are local in scope, in the market for the retail supply of hydrogen to HDV competition exists between operators at an earlier point in time and at a European level, or at least national level, for the following reasons:
- (a) First, competition between HRS operators does not take place at the refuelling location since there is no spontaneous decision-making by the truck driver during his or her journey. Instead, the journey of a hydrogen truck driver will be carefully planned with a clear idea from the onset on where and when to refill at an HRS. Competition between HRS offerings takes place at an earlier stage, when transporters compare available solutions and enter into a contract with an HRS operator (either at project developer stage, or when already operational), when it is in the process of transitioning

⁷⁶ Replies to eRFI 'Customers – Hydrogen Production', question D.14.

⁷⁷ Form CO, paragraph 275. The process and speed of refuelling a light vehicle is different than the process and speed of refuelling an HDV.

⁷⁸ Case M.10652 – *MOL / LOTOS PALIWA*, paragraphs 24-25.

⁷⁹ Case M.7603 – *Statoil fuel and retail / Dansk fuels*, paragraph 54.

its fleet to hydrogen and needs to be reassured about the viability of the network for its trucks, or when it has already transitioned its fleet to hydrogen.⁸⁰

- (b) Second, B2B customers travel large distances internationally with HDV on a larger fuel autonomy. These vehicles typically have a range of 500 to 800 km with the technology currently available, and several HDV manufacturers are hoping to increase this range beyond 1000 km by 2030. Liquefied hydrogen technology, which is currently under consideration for 2026/2027, could contribute to extending truck autonomy beyond 1000 km. As a result, a network of HRS for HDV could be spread over a large area and across multiple countries.⁸¹
 - (c) Third, the JV's main customers will be major stakeholders with Europe-wide needs. [...]. As a result, these international customers negotiate conditions at a supra-national level with international retail operators, [...].⁸²
- (60) In light of the above, the Parties are of the opinion that the relevant geographic market should be EU-wide in scope or at a minimum national in scope.⁸³
- (61) The majority of respondents to the market investigation expect most customers refuelling at HRS for HDV to have fuel cards issued for national consumption.⁸⁴ Specifically, respondents indicated that B2B customers (most of which use HDV) prefer invoicing in bulk and will use fuel cards as they do for their combustion engine vehicles.⁸⁵
- (62) Further, the majority of respondents also indicated that transporters enter into price agreements with HRS operators for the supply of hydrogen at an earlier stage, and then refuel only at the stations with whom they have an agreement with.⁸⁶ The market investigation showed that transporters do not generally spontaneously decide to refuel. When asked to explain, respondents noted '*the limited number of stations available today*'. Most respondents also indicated that there are currently no significant price differences or differentiated commercial or marketing offerings between HRS located near motorway exits and those located in logistic hubs.⁸⁷
- (63) The results of the market investigation were inconclusive when it comes to the exact scope of such fuel agreements between customers and HRS operators. Some respondents indicated that such agreements are national in scope, whereas some respondents indicated that these agreements are often transnational.⁸⁸ Several respondents indicated that given the nascent nature of this market, it is difficult to assess how it will evolve.⁸⁹

⁸⁰ Form CO, paragraph 283.

⁸¹ Form Co, paragraph 284.

⁸² Form CO, paragraphs 285-286.

⁸³ Form CO, paragraph 288.

⁸⁴ Replies to eRFI 'Customers – Hydrogen Production', question E.1.

⁸⁵ Replies to eRFI 'Customers – Hydrogen Production', question E.2.

⁸⁶ Replies to eRFI 'Customers – Hydrogen Production', question E.3.

⁸⁷ Replies to eRFI 'Customers – Hydrogen Production', question E.10.

⁸⁸ Replies to eRFI 'Customers – Hydrogen Production', question E.5.

⁸⁹ Replies to eRFI 'Customers – Hydrogen Production', question E.6.

- (64) In light of the above, for the purposes of the present decision, the Commission considers that the geographic scope of the market for the retail supply of hydrogen for HDV can be left open, as the Transaction does not give rise to serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement, under any plausible geographic market definition. The Commission's assessment will thus consider a national geographic market delimitation.

5. COMPETITIVE ASSESSMENT

5.1. Affected markets

- (65) The Transaction results in a merger-specific horizontally affected market concerning the Parties' activities in the retail supply of hydrogen to HDV in the Netherlands. In this market, the Parties' combined share is higher than 20%.⁹⁰
- (66) The Transaction results in merger-specific vertical relationships between (i) the market for the bulk supply of grey hydrogen and the market for the bulk supply of decarbonised hydrogen in each of the Benelux, France, and Germany, and (ii) the retail supply of hydrogen to HDV, where the JV will be active in Belgium, France, Germany, the Netherlands, and Luxembourg.
- (67) The Transaction also results in other vertical relationships. However, none of these give rise to affected markets within the meaning of recital 25(g) of the introduction of Annex I to Regulation (EU) 2023/914.⁹¹ Since such relationships typically do not give rise to serious doubts as to their compatibility with the internal market or functioning of the EEA Agreement and there are no indications to the contrary in this case, these relationships will not be further discussed in this decision.

5.2. Non-coordinated horizontal effects

- (68) The legal test for the assessment of horizontal effects of a concentration is set out in the Merger Regulation and in the Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings ('Horizontal Merger Guidelines').⁹²
- (69) With regard to non-coordinated effects, a merger may significantly impede effective competition in a market by removing important competitive constraints on one or more sellers who consequently have increased market power.⁹³ To assess whether the concentration could result in non-coordinated effects, the Commission considers, notably, the parties' market shares, concentration levels, and whether the concentration eliminates an important competitive force.⁹⁴
- (70) The Transaction will result in one affected horizontal overlap between the Parties' current activities in the retail supply of hydrogen to HDV in the Netherlands. In

⁹⁰ The Parties' activities do not horizontally overlap in the market for the bulk supply of hydrogen because TotalEnergies currently has very limited production capacity of hydrogen and all the hydrogen it produces is for its captive use only (see Form CO, paragraph 516).

⁹¹ OJ L 119, 5.5.2023, p. 22.

⁹² OJ C 31, 5.2.2004, p. 5.

⁹³ Horizontal Merger Guidelines, paragraph 24.

⁹⁴ Horizontal Merger Guidelines, paragraphs 17-38.

this market, the Parties' combined share is [20-30]%, corresponding to the Parties' five operational HRS for HDV in the country and which will be transferred to the JV post-Transaction.⁹⁵

5.2.1. *The Parties' views*

- (71) The Parties submit that the Transaction will not lead to a significant impediment of effective competition on the market for the retail supply of hydrogen to HDV.⁹⁶ In the Netherlands, the Parties indicate that there are no risks of anticompetitive effects given that the market is sufficiently competitive: there are 11 active competitors, in addition to the Parties.⁹⁷
- (72) Further, the Parties indicate that the barriers to enter the market for the retail supply of hydrogen for HDV are low. Specifically, while administrative authorisations are required for the installation of a retail fuel station as well as for the storage of hydrogen, there are no quotas or other regulatory restrictions that could limit the number of hydrogen stations. Equipment for HRS is also largely standardized and can be purchased from independent developers.⁹⁸
- (73) In addition, the Parties submit that the need to reduce greenhouse gas emissions together with the public incentives provided at national and EU level have led several major companies with significant means and financial resources active along the traditional fuel supply chain to enter the hydrogen retail market, together with companies already active along the hydrogen fuel supply chain.⁹⁹

5.2.2. *The Commission's assessment*

- (74) The Commission notes that, in the Netherlands, out of a total of 17 operational HRS for HDV, TotalEnergies owns four stations and Air Liquide owns one. Post-Transaction, the JV will thus operate five HRS for HDV in the country.¹⁰⁰ The remaining 12 HRS are evenly distributed between competitors with OrangeGas owning two HRS and each of the remaining ten HRS being owned or operated by the following undertakings: Avia Marees, Everfuel, Holthausen Energy, Fountain Fuel, Greenpoint, HySolar/Greenpoint, Kerkhof & Zn/OrangeGas, Kuster, Shell, and Vissers Energy Group.¹⁰¹
- (75) As the above makes clear, the increment brought about by the Transaction is small: one HRS representing [5-10]% of the market. Further, the market is relatively fragmented with a number of other active competitors which, combined, represent more than 70% of the market.

⁹⁵ The market shares in the downstream market were estimated by the Parties based on the number of HRS for HDV in each country, given the inexistence of comprehensive data sources on sales/capacity.

⁹⁶ Form CO, paragraph 294.

⁹⁷ Form CO, paragraph 346.

⁹⁸ Form CO, paragraph 368.

⁹⁹ Form CO, paragraph 366.

¹⁰⁰ Form CO, Table 14.

¹⁰¹ *Ibid.*

- (76) TotalEnergies will transfer to the JV [...] additional HRS which are currently under development and expected to open in 2023/2024.¹⁰² Air Liquide [...].¹⁰³
- (77) By 2033, the Parties, through the JV, expect to operate [...] HRS for HDV in the Netherlands.¹⁰⁴ The JV will not be the only undertaking expanding their hydrogen retail supply operations in the Netherlands: Shell and Daimler Truck have signed an agreement to develop 150 HRS for HDV between Germany (Cologne and Hamburg) and the Netherlands (Rotterdam), and Fountain has launched a project to open 11 new HRS for HDV in the Netherlands by 2025 and plans to operate 50 HRS by 2020.¹⁰⁵ In the context of the market investigation, both Shell and Everfuel confirmed that they will expand their networks of HRS for HDV in the Netherlands in the next five years.¹⁰⁶
- (78) In the next five years, the estimated market share of the JV in the Netherlands, in terms of volume, will be as follows:

Table 1: JV’s estimated volume market share in the market for the retail supply of hydrogen to HDV in the Netherlands (2024-2028)

	2024	2025	2026	2027	2028
Netherlands	[5-10]% ¹⁰⁷	[10-20]%	[20-30]%	[20-30]%	[20-30]%

Source: Parties (Form CO, paragraph 362)

- (79) The JV will in the future continue to face competition from various companies operating HRS for HDV, including OrangeGas, Avia Marees, Everfuel, Holthausen Energy Points B.V., Fountain Fuel, Greenpoint, and Shell.
- (80) In terms of barriers to entry, most respondents indicated that there are obstacles to enter the market for the retail supply of hydrogen to HDV.¹⁰⁸ One respondent to the market investigation indicated that the initial investment in HRS is significant and that companies need to be able to absorb losses until volume demand increases. A separate respondent submitted that the uncertainties around the economic viability of the HRS are currently the main barriers to entry in this market.¹⁰⁹
- (81) All respondents to the market investigation agree that the volume of hydrogen supplied for mobility purposes in Europe is expected to grow in the next five years,

¹⁰² Form CO, Annex 9.

¹⁰³ Form CO, paragraph 347.

¹⁰⁴ Form CO, Table 15.

¹⁰⁵ Form CO, paragraph 361.

¹⁰⁶ Replies to eRFI ‘Customers – Hydrogen Production’, question F.C.C.4.

¹⁰⁷ The discrepancy between the Parties’ 2022 market share based on the number of HRS ([20-30]% in 2022) and the [5-10]% volume market share estimate for 2024 stems from the fact that the Parties currently have a very limited existing client base in the Netherlands. The Parties believe that competitors may have so far deployed more efforts in securing pilot HDV partnerships (*i.e.*, clients) and thus are selling more volumes than the Parties – see Parties’ reply to Request for Information 8.

¹⁰⁸ Replies to eRFI ‘Customers – Hydrogen Production’, question F.C.C.7 and ‘Hydrogen Refuelling Stations – Information Request for Future New Entrants’, question B.

¹⁰⁹ Replies to eRFI ‘Customers – Hydrogen Production’, question F.C.C.7.

with 60% stating that this growth will be significant.¹¹⁰ Further, all respondents active in the operation of HRS for HDV in the Netherlands indicate that, over the next five years, they will expand their HRS network for HDV in the Netherlands.¹¹¹

- (82) Even though the market for the retail supply of hydrogen for HDV is nascent in Europe, there is already a high number of competitors active in this space, including in the Netherlands. As demand will most likely continue to increase, the supply networks of active competitors are also expected to expand.
- (83) In light of the small increment brought about by the Transaction, the existence of various other active competitors representing [70-80]% of the market, and the fact that these competitors are expected to expand over the next five years, the Commission considers that the Transaction will not give rise to serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement.

5.3. Vertical effects

- (84) According to the Commission's Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings ('Non-horizontal Merger Guidelines'),¹¹² foreclosure effects may occur where actual or potential rivals' access to supplies or markets is hampered or eliminated as a result of the concentration, thereby reducing these companies' ability and/or incentive to compete.
- (85) The Commission has therefore assessed the risk of non-coordinated effects with regard to the vertical relationship between
- (a) Upstream, (i) the market for the bulk supply of grey hydrogen, where Air Liquide holds a market share higher than 30% in each of the Benelux, France, and Germany, or (ii) the market for the bulk supply of decarbonised hydrogen (green and blue hydrogen), where Air Liquide potentially holds a market share higher than 30% in each of the Benelux, France, and Germany,¹¹³ and
 - (b) Downstream, the markets for the retail supply of hydrogen to HDV, where the JV will be active in Belgium, France, Germany, Netherlands, and Luxembourg.

5.3.1. Input foreclosure

- (86) Input foreclosure arises where, post-concentration, the new entity would be likely to restrict access to the products that it would have otherwise supplied absent the concentration, thereby raising its downstream rivals' costs by making it harder for

¹¹⁰ Replies to eRFI 'Customers – Hydrogen Production', question F.2.

¹¹¹ Replies to eRFI 'Customers – Hydrogen Production', question F.C.C.4.

¹¹² OJ C 265, 18.10.2008.

¹¹³ Given the nascent nature of the market for the bulk supply of decarbonised hydrogen (green and blue), the absence of comprehensive data sources, and the fact that it has only now started to develop its activity in this segment, Air Liquide is unable to estimate its market shares in the markets for the bulk supply of decarbonised hydrogen.

them to obtain supplies of the input under similar prices and conditions as in the absence of the concentration.¹¹⁴

- (87) In assessing the likelihood of an anticompetitive input foreclosure scenario, the Commission examines, first, whether the merged entity would have, post-concentration, the ability to substantially foreclose access to inputs, second, whether it would have the incentive to do so, and third, whether a foreclosure strategy would have a significant detrimental effect on competition downstream.¹¹⁵
- (88) The Parties submit that, post-Transaction, Air Liquide will not have the ability or the incentive to restrict the JV's competitors in the downstream market for the retail supply of hydrogen to HDV by degrading the terms of supply or denying access to hydrogen in the Benelux, France, and Germany. In particular, the Parties claim that the merged entity:
- (a) Will not have the ability to foreclose access to hydrogen because there are several alternatives and credible suppliers of grey hydrogen, including Linde, Air Products, Rijngas, Messer, Everfuel, Plug Power, and Virya Energy and, in any event, companies in the downstream market will supply predominantly decarbonised hydrogen. In the segment for decarbonised hydrogen, Air Liquide's installed production capacity remains very limited. It will face numerous competitors, including new future market entrants. Finally, operators of HRS for HDV have the option to produce their own hydrogen (by, *e.g.*, installing on-site electrolyzers);¹¹⁶
 - (b) Will not have the incentive to foreclose access to hydrogen because (i) any foreclosure strategy resulting in a loss of revenues in the upstream markets will not necessarily be recaptured by the JV in the downstream markets as the JV's competitors could, in response, switch to alternative hydrogen suppliers, (ii) Air Liquide will have a production capacity far in excess of the JV's requirements, so it will have a strong incentive to also supply the JV's competitors to optimise the utilisation of its infrastructure, and (iii) in any event, Air Liquide would only benefit from 50% of the profits generated by the JV, further reducing Air Liquide's incentives to implement such a strategy;¹¹⁷ and
 - (c) Will not have a significant detrimental effect on competition because a hypothetical input foreclosure strategy would not materially affect the degree of effective competition in the downstream market.¹¹⁸

5.3.1.1. Benelux

- (89) The Commission notes that Air Liquide's share in 2022 in the market for the bulk supply of grey hydrogen was approximately [60-70]% in the Benelux in terms of volume and [80-90]% in terms of value.¹¹⁹ Given the nascent nature of the market for the bulk supply of decarbonised hydrogen (green and blue), the absence of

¹¹⁴ Non-horizontal Merger Guidelines, paragraph 31.

¹¹⁵ Non-horizontal Merger Guidelines, paragraph 32.

¹¹⁶ Form CO, paragraphs 475-545.

¹¹⁷ Form CO, paragraphs 546-557.

¹¹⁸ Form CO, paragraphs 558-560.

¹¹⁹ Parties' reply to Request for Information 7, paragraph 3.

comprehensive data sources, and the fact that it has only now started to develop its activity in this segment, Air Liquide is unable to estimate its market share in the market for the bulk supply of decarbonised hydrogen in the Benelux.¹²⁰ However, it estimates that its position does not confer significant market power that would allow it to negatively affect the JV's competitors.¹²¹

- (90) Despite its high market share in the market for the bulk supply of grey hydrogen, it is unlikely that Air Liquide would be able to implement a foreclosure strategy post-Transaction.
- (91) Immediately post-Transaction, it is likely that the JV's actual and future downstream competitors can opt to source grey hydrogen from other hydrogen producers active in the Benelux, such as Linde ([20-30]% in terms of volume), Air Products ([10-20]%), and others (such as Westfalen Gas, Rijngas, and Nippon Gases).¹²² The total demand for grey hydrogen that the small number of HRS for HDV in the Benelux represents is minimal compared to the total supply of grey hydrogen in the territory.¹²³ As such, the JV's competitors would need only a small fraction of the total production of grey hydrogen to circumvent a hypothetical input foreclosure strategy. Moreover, most of the respondents to the Commission's market investigation consider that it is relatively easy or very easy for a mobility customer to switch from a given hydrogen supplier to another.¹²⁴
- (92) In the medium-term, the JV will offer only decarbonised hydrogen in their HRS for HDV. The Parties expect that its competitors' HRS for HDV's demand for grey hydrogen will likely be marginal as well, as competitors face the same pressure from the mobility sector to supply only decarbonised hydrogen.¹²⁵ This was confirmed by the results of the Commission's market investigation.¹²⁶ The Parties estimate that, in 2028, the JV's and competitors' expected demand for grey hydrogen in the Benelux will be approximately zero.¹²⁷ As such, in a few years' time, an input foreclosure strategy limited to grey hydrogen would have no effect.
- (93) Similarly, the likelihood of an input foreclosure strategy in the market for the bulk supply of decarbonised hydrogen (green and blue) appears limited. The bulk supply of decarbonised hydrogen is supposed to increase substantially in the next few years, including in the Benelux.¹²⁸ Air Liquide's current supply of decarbonised

¹²⁰ Parties' reply to Request for Information 7, paragraph 5. Form CO, paragraph 497.

¹²¹ Form CO, paragraphs 487 and 497

¹²² Parties' reply to Request for Information 7, paragraph 3. Replies to eRFIs 'Competitors – Hydrogen Production', questions D.C.1., D.D.1., and D.E.1 and 'Customers – Hydrogen Production', questions F.C.A.2, F.D.A.2., and F.E.A.2.

¹²³ Form CO, paragraphs 915-921.

¹²⁴ Replies to eRFIs 'Competitors – Hydrogen Production', questions D.10-D.11 and 'Customers – Hydrogen Production', questions F.5-F.6.

¹²⁵ Form CO, paragraph 919.

¹²⁶ *E.g.*, minutes of pre-notification conference call of 11 October 2023, paragraphs 6 and 13; minutes of pre-notification conference call of 27 July 2023, paragraph 5; minutes of pre-notification conference call of 25 July 2023, paragraph 3; and minutes of pre-notification conference call of 30 October 2023, paragraph 6.

¹²⁷ Form CO, paragraphs 915-921.

¹²⁸ *E.g.*, minutes of pre-notification conference call of 11 October 2023, paragraph 6 and minutes of pre-notification conference call of 30 October 2023, paragraph 6.

hydrogen in the Benelux is marginal. In this segment, it currently competes with Linde, Air Products, Messer, Everfuel, Rijngas, and Uniper.¹²⁹

- (94) Air Liquide estimates that its capacity share in the market for the bulk supply of decarbonised hydrogen will remain limited in the Benelux, at approximately [30-40]% in 2028.¹³⁰ In the future, existing hydrogen suppliers will expand their activity, where pure new competitors will also enter. The categories of new undertakings that will likely start producing and supplying decarbonised hydrogen in the next five years in the Benelux include:
- (a) Traditional gas and energy suppliers moving towards more sustainable practices, such as Shell¹³¹ and Nippon Sanso¹³²;
 - (b) Electric utility companies making use of their technical expertise to produce green hydrogen, such as Engie¹³³ and RWE;¹³⁴ and
 - (c) New players who are attracted by the growing potential of the market, such as Yara,¹³⁵ Plug Power,¹³⁶ Hy2gen,¹³⁷ and DEME.¹³⁸
- (95) In addition, the JV's downstream competitors have the option to start producing their own hydrogen by installing on-site electrolyzers to produce the hydrogen the HRS will supply.¹³⁹ The Commission's investigation revealed that some operators of HRS for HDV are already partly self-sufficient, producing part of their hydrogen requirements in-house.¹⁴⁰
- (96) As a result, Air Liquide does not currently have, nor is it expected to have in the near future, significant market power in the putative segment for the bulk supply of

¹²⁹ Form CO, paragraphs 879 and 895. Replies to eRFIs 'Hydrogen Production – Information Request for Future New Entrants', question B.C.1 and 'Competitors – Hydrogen Production', question D.12.

¹³⁰ Form CO, paragraphs 915-921.

¹³¹ Replies to eRFIs 'Hydrogen Production – Information Request for Future New Entrants', questions A.3, A.5, and A.6.

¹³² Form CO, paragraph 902.

¹³³ Form CO, paragraphs 889 and 905. Among others, Engie is developing the North-C-Hydrogen project, a 67MW electrolysis unit in the port of Ghent, Belgium. See, in this respect, Engie's online page describing the project ([North-C-Hydrogen | ENGIE](#), as accessed in November 2023).

¹³⁴ Form CO, paragraph 890. RWE is developing the Eemshydrogen project in the Netherlands. It will build an electrolyser to produce green hydrogen which will have a capacity of 50 megawatts. See also, in this respect, RWE's online page describing the project: [RWE, Eemshydrogen](#) (as accessed in November 2023).

¹³⁵ Form CO, paragraph 891. Yara and Ørsted are developing a 100 MW wind-powered electrolyser plant for renewable hydrogen production in the Netherlands. See, in this respect, Yara's online page describing the project ([Yara International](#), as accessed in November 2023).

¹³⁶ Form CO, paragraph 903. See also, in this respect, [Plug Power to build 'one of Europe's largest' green hydrogen plants with 100MW Belgian port project](#) (as accessed in November 2023).

¹³⁷ Replies to eRFI 'Hydrogen Production – Information Request for Future New Entrants', questions A.9 and B.C.1.

¹³⁸ Form CO, paragraph 904. DEME Concessions, the Port of Oostende, and PMV have announced they plan to have a plant operation in the port area of Ostend by 2025 that produces green hydrogen. See, in this respect, DEME's online page describing the project ([DEME Group](#), as accessed in November 2023).

¹³⁹ One of the competitors in the market for the retail supply of hydrogen for HDV has stated that it takes approximately three years to build electrolyzers. Minutes of pre-notification conference call of 30 October 2023, paragraph 6.

¹⁴⁰ Replies to eRFIs 'Customers – Hydrogen Production', questions F.C.A.1 and F.E.A.1.

decarbonised hydrogen that could allow it to implement input foreclosure strategies.

- (97) For these reasons, the Commission considers that Air Liquide would lack the ability to engage in input foreclosure strategies in the market for the bulk supply of decarbonised hydrogen (green and blue) and, consequently, that it is not necessary to assess whether it would have the incentive to do so.
- (98) Even if Air Liquide hypothetically had the ability and incentive to attempt to input foreclose, these strategies would likely not have a significant detrimental effect on the market. In five years (2028), the JV's expected purchasing share of green and blue hydrogen will remain minimal: the JV's expected demand of hydrogen in the Benelux ([...] kilo tonnes) will represent less than [0-5]% of the total expected decarbonised hydrogen production capacity in the Benelux in 2028 (at least approximately 818 kilo tonnes).¹⁴¹ In addition, even if Air Liquide were to attempt to foreclose, the strategy would likely not have an overall impact on effective competition downstream, as the JV's competitors would continue having several supply alternatives in the large base of decarbonised hydrogen undertakings that will likely operate in the Benelux market.
- (99) Finally, a number of respondents to the market investigation considered that the Transaction would have an overall positive impact in the EU hydrogen for mobility sector. One competitor of the JV post-Transaction has described the concentration as a positive development for the expansion of the hydrogen for mobility sector in Europe, defending that its own position '*crucially depends on the investments made by other competitors*' and that the presence of various competitors in the market, as the JV, '*will induce, on the one hand, OEMs to manufacture more trucks running on hydrogen and, on the other hand, potential customers to purchase the trucks and service them on the available HRS for HDVs*'.¹⁴² Most of the participants that expressed a view consider that the Transaction will promote the growth of and the investment in the hydrogen for mobility sector in the EU¹⁴³ and that the Transaction will have either a positive or no/limited impact in their economic activities.¹⁴⁴
- (100) The Commission therefore considers that the merged entity will lack the ability and incentive to engage in strategies aimed at foreclosing the JV's competitors' access to hydrogen in Benelux. Even if it had the ability and incentive to engage in an input foreclosure strategy, such strategy would be unlikely to result in a significant detrimental effect on competition.

¹⁴¹ Form CO, paragraphs 915-921.

¹⁴² Minutes of pre-notification conference call of 11 October 2023, paragraphs 28-29.

¹⁴³ Replies to eRFIs 'Competitors – Hydrogen Production', question E.5, 'Customers – Hydrogen Production', question G.5, 'Hydrogen Refuelling Stations – Information Request for Future New Entrants', question C.5, and 'Hydrogen Production – Information Request for Future New Entrants', question C.5.

¹⁴⁴ Replies to eRFIs 'Competitors – Hydrogen Production', question E.6, 'Customers – Hydrogen Production', question G.6, 'Hydrogen Refuelling Stations – Information Request for Future New Entrants', question C.6, and 'Hydrogen Production – Information Request for Future New Entrants', question C.6.

5.3.1.2. France

- (101) The Commission notes that Air Liquide's share in the market for the bulk supply of grey hydrogen was approximately [50-60]% in volume and [60-70]% in value.¹⁴⁵ Given the nascent nature of the market for the bulk supply of decarbonised hydrogen (green and blue), the absence of comprehensive data sources, and the fact that it has only now started to develop its activity in this segment, Air Liquide is unable to estimate its market share in the market for the bulk supply of decarbonised hydrogen in France.¹⁴⁶ However, it estimates that its position does not confer significant market power that would allow it to negatively affect the JV's competitors.¹⁴⁷ Despite its high market share in the market for the bulk supply of grey hydrogen, it is unlikely that Air Liquide would be able to implement a foreclosure strategy post-Transaction.
- (102) Immediately post-Transaction, it is likely that the JV's actual and future competitors can opt to source grey hydrogen from other hydrogen producers active in France, such as Linde ([20-30]% in terms of volume), Air Products ([10-20]%), and Westfalen ([5-10]%).¹⁴⁸ The total demand for grey hydrogen that the small number of HRS for HDV in France represents is minimal compared to the total supply of grey hydrogen in the territory.¹⁴⁹ As such, the JV's competitors would need only a small fraction of the total production of grey hydrogen to circumvent a hypothetical input foreclosure strategy. Moreover, most of the respondents to the Commission's market investigation consider that it is relatively easy or very easy for a mobility customer to switch from a given hydrogen supplier to another.¹⁵⁰
- (103) In the medium-term, as explained in paragraph (92), the JV and its competitors will likely only offer decarbonised hydrogen in their HRS for HDV. This was confirmed by the results of the Commission's market investigation.¹⁵¹ The Parties estimate that, in 2028, the JV's and competitors' expected demand for grey hydrogen in France will be approximately zero.¹⁵² As such, in a few years' time, an input foreclosure strategy limited to grey hydrogen would have no effect.
- (104) Similarly, the likelihood of an input foreclosure strategy in the market for the bulk supply of decarbonised hydrogen (green and blue) appears limited. The bulk supply of decarbonised hydrogen is supposed to increase substantially in the next few years, including in France.¹⁵³ Air Liquide has only just started its activity in the bulk supply of decarbonised hydrogen in France and its market share is unlikely to confer to it significant market power allowing it to negatively affect the JV's

¹⁴⁵ Form CO, paragraph 476.

¹⁴⁶ Parties' reply to Request for Information 7, paragraph 5. Form CO, paragraph 497.

¹⁴⁷ Form CO, paragraphs 487 and 497

¹⁴⁸ Form CO, tables in paragraph 840.

¹⁴⁹ Form CO, paragraphs 915-921.

¹⁵⁰ Replies to eRFIs 'Competitors – Hydrogen Production', questions D.10-D.11 and 'Customers – Hydrogen Production', questions F.5-F.6.

¹⁵¹ *E.g.*, minutes of pre-notification conference call of 11 October 2023, paragraphs 6 and 13; minutes of pre-notification conference call of 27 July 2023, paragraph 5; minutes of pre-notification conference call of 25 July 2023, paragraph 3; and minutes of pre-notification conference call of 30 October 2023, paragraph 6.

¹⁵² Form CO, paragraphs 915-921.

¹⁵³ *E.g.*, minutes of pre-notification conference call of 11 October 2023, paragraph 6 and minutes of pre-notification conference call of 30 October 2023, paragraph 6.

competitors.¹⁵⁴ In this segment, it already currently competes with several companies, including Linde, Hynamics, Westfalen, and Lhyfe.¹⁵⁵

(105) Air Liquide estimates that its capacity share in the market for the bulk supply of decarbonised hydrogen will remain limited in France, at less than 10% in 2028.¹⁵⁶ In the future, existing hydrogen suppliers will expand their activity, where pure new competitors will also enter. The categories of new undertakings that will likely start producing and supplying decarbonised hydrogen in the next five years in France include:

- (a) Electric utility companies making use of their technical expertise to produce green hydrogen, such as Engie,¹⁵⁷ and
- (b) New players who are attracted by the growing potential of the market, such as Hy2gen,¹⁵⁸ and Qair.¹⁵⁹

In addition, the market investigation suggests that gas suppliers may decide to move towards more sustainable practices by starting to supply decarbonised carbon in France.¹⁶⁰

(106) Moreover, the JV's competitors have the option to start producing their own hydrogen by installing on-site electrolyzers to produce the hydrogen the HRS will supply. Engie, for example, has at least one HRS in France that produces green hydrogen with an on-site electrolyser.¹⁶¹

(107) For these reasons, the Commission considers that Air Liquide would lack the ability to engage in input foreclosure strategies in the market for the bulk supply of decarbonised hydrogen (green and blue) and, consequently, that it is not necessary to assess whether it would have the incentive to do so.

(108) Even if Air Liquide hypothetically had the ability and incentive to attempt to input foreclose, these strategies would likely not have a significant detrimental effect in the market. The JV's expected purchasing share of hydrogen in 2024 is insignificant. In five years (2028), the JV's expected purchasing share will remain minimal: the JV's expected demand of hydrogen in France [...] kilo tonnes) will represent less than [0-5]% of the total expected decarbonised hydrogen production capacity in France in 2028 (approximately 907 kilo tonnes).¹⁶² In addition, even if Air Liquide were to attempt to foreclose, the strategy would likely not have an

¹⁵⁴ Parties' reply to Request for Information 7, paragraph 5. Form CO, paragraphs 487 and 497. The sales of decarbonised hydrogen in France are very limited. Air Liquide is unable to provide a market share estimate.

¹⁵⁵ Form CO, paragraph 845.

¹⁵⁶ Form CO, paragraphs 915-921.

¹⁵⁷ Form CO, paragraphs 845 and 848.

¹⁵⁸ Replies to eRFI 'Hydrogen Production – Information Request for Future New Entrants', questions A.9 and B.A.1.

¹⁵⁹ Qair, in partnership with AREC – Agence Régionale Énergie Climat, is developing a renewable hydrogen production plant in France. See, in this respect, Qair's online page describing the project ([Qair Group - FR](#), as accessed in November 2023).

¹⁶⁰ Replies to eRFI 'Hydrogen Production – Information Request for Future New Entrants', question B.A.1.

¹⁶¹ Replies to eRFI 'Customers – Hydrogen Production', question F.A.A.1 and Form CO, paragraph 501. See also Engie's announcement in its website ([Engie](#), as accessed in November 2023).

¹⁶² Form CO, paragraphs 915-921.

overall impact on effective competition downstream, as the JV's competitors would continue having several supply alternatives in the large base of decarbonised hydrogen undertakings that will likely operate in the French market.

- (109) Finally, some respondents to the market investigation considered that the Transaction would have an overall positive impact, as explained in paragraph (99).
- (110) The Commission therefore considers that the merged entity will lack the ability and incentive to engage in strategies aimed at foreclosing the JV's competitors' access to hydrogen in France. Even if it had the ability and incentive to engage in an input foreclosure strategy, such strategy would be unlikely to result in a significant detrimental effect on competition.

5.3.1.3. Germany

- (111) Upstream, Air Liquide's share in the German market for the bulk supply of hydrogen in 2022 was [20-30]% in volume and [30-40]% in value.¹⁶³ It competes with Linde ([30-40]% in value), Air Products ([10-20]%), and Nippon Sanso ([10-20]%), among others. Given the nascent nature of the market for the bulk supply of decarbonised hydrogen (green and blue), the absence of comprehensive data sources, and the fact that it has only now started to develop its activity in this segment, Air Liquide is unable to estimate its market share in the market for the bulk supply of decarbonised hydrogen in Germany.¹⁶⁴ However, it estimates that its position does not confer significant market power that would allow it to negatively affect the JV's competitors.¹⁶⁵
- (112) Downstream, the JV will, immediately post-Transaction, operate one HRS for HDV, corresponding to a market share of approximately [5-10]% in Germany in the retail supply of hydrogen to HDV.¹⁶⁶
- (113) Air Liquide's market share in the upstream market for the bulk supply of grey hydrogen is [...] above the 30% threshold under which the Commission is unlikely to find concerns in non-horizontal concentrations, while the JV's market share in the downstream market is substantially below this threshold. As such, under the Non-horizontal Merger Guidelines, vertical competition concerns are unlikely.¹⁶⁷
- (114) The Commission's market investigation confirmed that the merged entity is also unlikely to implement an input foreclosure strategy in the market for the bulk supply of decarbonised hydrogen, for the reasons explained in the previous sections for Benelux and France.
- (115) The bulk supply of decarbonised hydrogen is supposed to increase substantially in the next few years, including in Germany.¹⁶⁸ Air Liquide has only just started its activity in the bulk supply of decarbonised hydrogen in Germany and its market

¹⁶³ Form Co, paragraph 855.

¹⁶⁴ Parties' reply to Request for Information 7, paragraph 5. Form CO, paragraph 497.

¹⁶⁵ Form CO, paragraphs 487 and 497

¹⁶⁶ Form CO, paragraph 338.

¹⁶⁷ Non-horizontal Merger Guidelines, footnote 19.

¹⁶⁸ *E.g.*, minutes of pre-notification conference call of 11 October 2023, paragraph 6, and minutes of pre-notification conference call of 30 October 2023, paragraph 6.

share is unlikely to confer to it significant market power allowing it to negatively affect the JV's competitors.¹⁶⁹ In this segment, it already currently competes with several companies, including Linde, Air Products, Messer, Everfuel, Westfalen, Nippon Sanso, Shell, and H2 Energy.¹⁷⁰

- (116) Air Liquide estimates that its capacity share in the market for the bulk supply of decarbonised hydrogen will remain limited in Germany, at less than 5% in 2028.¹⁷¹ In the future, existing hydrogen suppliers will expand their activity, where pure new competitors will also enter, such as Lhyfe, Hynamics, and VoltH2.¹⁷²
- (117) For these reasons, the Commission considers that Air Liquide would lack the ability to engage in input foreclosure strategies in the market for the bulk supply of decarbonised hydrogen (green and blue) and, consequently, that it is not necessary to assess whether it would have the incentive to do so.
- (118) Finally, some respondents to the market investigation considered that the Transaction would have an overall positive impact, as explained in paragraph (99).
- (119) The Commission therefore considers that the merged entity will lack the ability and incentive to engage in strategies aimed at foreclosing the JV's competitors' access to hydrogen in Germany. Even if it had the ability and incentive to engage in an input foreclosure strategy, such strategy would be unlikely to result in a significant detrimental effect on competition.

5.3.2. Customer foreclosure

- (120) Customer foreclosure may occur when a supplier integrates with an important customer in the downstream market. Because of this downstream presence, the merged entity may foreclose access to a sufficient customer base to its actual or potential rivals in the upstream market (the input market) and reduce their ability or incentive to compete.¹⁷³
- (121) In assessing the likelihood of an anticompetitive customer foreclosure scenario, the Commission examines, first, whether the merged entity would have the ability to foreclose access to downstream markets by reducing its purchases from its upstream rivals, second, whether it would have the incentive to reduce its purchases upstream, and third, whether a foreclosure strategy would have a significant detrimental effect on consumers in the downstream market.¹⁷⁴
- (122) The Parties submit that the Transaction will not lead to adverse customer foreclosure effects on the hydrogen production market for the following reasons:¹⁷⁵

¹⁶⁹ Parties' reply to Request for Information 7, paragraph 5. Form CO, paragraphs 487 and 497. The sales of decarbonised hydrogen in France are very limited. Air Liquide is unable to provide a market share estimate.

¹⁷⁰ Form CO, paragraph 860.

¹⁷¹ Form CO, paragraphs 915-921.

¹⁷² Form CO, paragraph 860.

¹⁷³ Non-horizontal Merger Guidelines, paragraph 58.

¹⁷⁴ Non-horizontal Merger Guidelines, paragraph 59.

¹⁷⁵ Form CO, paragraphs 65-69 and 561-573.

- (a) Even if the JV were to source its hydrogen needs almost exclusively from the Parties, this would not lead to the foreclosure of competing or potential suppliers in the markets for the bulk supply of grey hydrogen and decarbonised hydrogen because the JV will start a greenfield business. Hence, no upstream competitor of Air Liquide will be foreclosed from any existing downstream demand.
- (b) The retail market for the distribution of hydrogen is an emerging market in expansion and it is estimated that the JV's market share in such a market should remain well below 25% in Belgium, France, Germany, the Netherlands, and Luxembourg. As such, the JV will not qualify as an essential customer for rival producers of hydrogen and would have no ability or incentive to foreclose upstream competitors of Air Liquide.
- (123) The Commission considers that the Transaction will not give rise to customer foreclosure concerns as the JV will have no ability to foreclose access to downstream markets.
- (124) For customer foreclosure to be a concern, a concentration must involve a company which is an important customer with a significant degree of market power in the downstream market.¹⁷⁶ Immediately post-completion, the JV's market share will remain below 30% in each of Belgium, France, Germany, and the Netherlands such that the JV is unlikely to qualify as an important customer of grey or decarbonised hydrogen (blue and green) in any of these Member States.¹⁷⁷ In any event, it is also expected that, over the next five years, the JV's market share in each of these Member States decreases as competitors of the JV expand and new entrants set up their networks of HRS. A majority of the potential new entrant undertakings surveyed by the Commission's market investigation¹⁷⁸ declared that they intend to set up a network of HRS¹⁷⁹ or expand their existing networks of HRS¹⁸⁰ in one or more of these Member States within the next five years.
- (125) In Luxembourg, the only HRS currently active will be owned by the JV. While technically the JV will not face competition in Luxembourg immediately post-Transaction, this does not mean that it qualifies as an important customer for an upstream producer of hydrogen. It is implausible for a hydrogen supplier to be heavily dependent on sales to one single HRS.¹⁸¹ Further, suppliers of hydrogen

¹⁷⁶ Non-horizontal Merger Guidelines, paragraph 61.

¹⁷⁷ The Commission is unlikely to find concern in non-horizontal mergers where the market share post-concentration of the new entity in each of the markets concerned is below 30% (Non-horizontal Merger Guidelines, paragraph 25). The market shares in the downstream markets were estimated by the Parties based on the number of HRS for HDV in each country, given the inexistence of comprehensive data sources on sales/capacity.

¹⁷⁸ Potential new entrants include energy companies, gas suppliers, and companies currently operating HRS networks in other geographic areas.

¹⁷⁹ Replies to eRFI 'Hydrogen Refuelling Stations – Information Request for Future New Entrants', question B.1.

¹⁸⁰ Replies to eRFI 'Customers – Hydrogen Production', questions F.A.C.4, F.B.C.4, F.C.C.4 and F.E.C.4.

¹⁸¹ By way of illustration, the HRS in Luxembourg has a daily capacity of [...] kg/day (Form CO, Annex 9) *i.e.*, less than [...] kilo tonne per year. This can be contrasted with the total production capacity in Belgium which is estimated to amount to 523 kilo tonnes in 2022 (Form CO, Table 34). In other words, the JV's demand in Luxembourg represents less than [0-5]% of the hydrogen production capacity in Belgium alone in 2022.

that compete with Air Liquide in the Benelux have access to customers, not only in Luxembourg, but also in Belgium and in the Netherlands (neighbouring countries that, for the reasons explained in paragraphs (42)-(43), form a distinct geographic market together with Luxembourg). The total demand of grey and decarbonised hydrogen by the JV and its competitors in the Benelux region is expected to amount to 3.1 kilo tonnes in 2024.¹⁸² By contrast, the total demand for hydrogen in the Benelux amounted to 1 726 kilo tonnes at the end of 2020.¹⁸³ In other words, suppliers of hydrogen that compete with Air Liquide in the Benelux will not rely solely on the JV's one HRS in Luxembourg to sell their output.

- (126) In any event, it is implausible that the JV retains any significant, actual, and long-lasting market power in Luxembourg, given that the competitive landscape is expected to significantly change over the next five years. All current competitors of the JV in the Benelux who responded to the Commission's market investigation declared that they would expand their networks of HRS within the next five years.¹⁸⁴ In addition, a majority of the potential new entrant undertakings surveyed by the Commission's market investigation declared that they intend to set up a network of HRS in the Benelux region by 2028. New entrants are therefore expected in the Benelux region, including in Luxembourg, within the next five years.¹⁸⁵
- (127) Moreover, as indicated above, total demand for decarbonised hydrogen for other end uses (*e.g.*, industrial application and energy) is expected to increase in the EEA, including Luxembourg.¹⁸⁶ As such, there will likely be sufficient economic alternatives downstream for rival hydrogen suppliers to sell their output. It follows that the JV will have no ability to foreclose access to downstream markets.
- (128) Given that the combined entity would not have the ability to engage in a customer foreclosure strategy, it is not necessary for the Commission to assess the existence of incentives or the potential impact of such a foreclosure strategy on effective competition.
- (129) The Commission therefore considers that the Transaction does not give rise to input or customer foreclosure concerns. Accordingly, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement in that respect.

¹⁸² Form CO, Tables 34, 35 and 38.

¹⁸³ Form CO, Table 16.

¹⁸⁴ Replies to eRFI 'Customers – Hydrogen Production', questions F.C.C.4 and F.E.C.4.

¹⁸⁵ Replies to eRFI 'Hydrogen Refuelling Stations – Information Request for Future New Entrants', question B.1.

¹⁸⁶ *E.g.*, minutes of pre-notification conference call of 11 October 2023, paragraph 5 and minutes of pre-notification conference call of 17 October 2023, paragraphs 4-7.

6. CONCLUSION

- (130) For the above reasons, the European Commission has decided not to oppose the concentration and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation and Article 57 of the EEA Agreement.

For the Commission

(Signed)
Margrethe VESTAGER
Executive Vice-President