



COMPETITION COMMISSION OF INDIA
(Combination Registration No. C-2018/01/545)

06.09.2018

**Notice under Section 6(2) of the Competition Act, 2002 given by Linde
Aktiengesellschaft and Praxair, Inc.**

CORAM:

Mr. Sudhir Mital
Chairperson

Mr. Augustine Peter
Member

Mr. U. C. Nahta
Member

Legal Representatives of the parties: Vinod Dhall and TT&A for Linde Aktiengesellschaft and Shardul Amarchand Mangaldas & Co for Praxair, Inc.

Order under Section 31(7) of the Competition Act, 2002

I. Introduction

1. On 11.01.2018, the Competition Commission of India (“**Commission**”) received a notice under Section 6(2) of the Competition Act, 2002 (“**Act**”) jointly given by Linde Aktiengesellschaft (“**Linde**”) and Praxair, Inc. (“**Praxair**”) (hereinafter Linde and Praxair are collectively referred to as the “**Parties**”). The notice was filed pursuant to the resolution passed by the Boards of Directors of Linde and Praxair on 01.06.2017 and 31.05.2017, respectively and Business Combination Agreement executed *inter alia* between the Parties on 01.06.2017 as amended on 10.08.2017 (“**BCA**”).



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2. The Commission noted that a notice had been filed by the Parties earlier on two occasions, first on 29.06.2017 (assigned Combination Regn. No. C-2017/06/520) and thereafter on 14.08.2017 (assigned Combination Regn. No. C-2017/08/524). As regards the first notice, complete information regarding market shares *etc.* was not available with the Parties at the time of filing notice, and therefore, *vide* letter dated 06.07.2017, the Parties requested the Commission to allow them to withdraw the notice and file a fresh notice. The Commission accepted the request and allowed the Parties to re-file a notice without any additional fees. The Parties filed the notice for the second time on 14.08.2017. However, on consideration of the notice filed by the Parties, the Commission decided that it is not complete and is not in conformity with the provisions of The Competition Commission of India (Procedure in regard to the transaction of business relating to combinations) Regulations, 2011 (“**Combination Regulations**”) and therefore, not valid in terms of Regulation 14(2A) read with Regulation 14(1) of the Combination Regulations. Accordingly, *vide* letter dated 05.09.2017, the Commission directed the parties to file a fresh notice for the proposed combination. Further, the Commission also decided that no additional fee shall be payable for fresh notice. In accordance with the directions of the Commission, the Parties filed the present notice on 11.01.2018.
3. In terms of Regulation 14 of the Combination Regulations, *vide* letter dated 30.01.2018, the Parties were required to provide certain information/document(s) latest by 05.02.2018. The Parties filed their reply on 01.03.2018, after seeking extension of time. *Vide* another letter dated 12.03.2018, issued under Regulation 14 of the Combination Regulations, the Parties were required to provide certain information/documents by 16.03.2018. The Parties submitted their reply on 23.03.2018, after seeking extension of time. In terms of Section 31(12) of the Act read with Regulation 14(5) and Regulation 19(2) of the Combination Regulations, the time taken by the Parties in providing the required information including document(s) shall be excluded from the period provided in Section 31(11) of the Act and Regulation 19(1) of Combination Regulations.



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4. In terms of Regulation 19(3) of the Combination Regulations read with Section 36(4) of the Act, the Commission also sought information *inter alia* from competitors and customers of the Parties. The Commission considered responses received from these entities while forming its opinion in the present matter.
5. The Commission also considered the inputs given by experts engaged in relation to the assessment of the proposed combination in terms of relevant provisions of the Act read with the Combination Regulations. Further, considering the worldwide scope of the Proposed Combination, the Commission also cooperated with other jurisdictions during the course of competition assessment.

II. Parties to the Combination

6. Linde, headquartered in Munich, Germany, is an international gases and engineering company. Linde is primarily active in industrial gases, medical gases, specialty gases and the related engineering and services sectors. Globally, it is composed of three divisions: the main Gases and Engineering divisions, and a smaller Logistics Services division, Gist. In India, Linde is active, only in the Gases and Engineering divisions, directly and through its subsidiaries Linde India Limited (“**Linde India**”) and Linde Engineering India Private Limited and through a joint venture company Bellary Oxygen Company Private Limited¹ (“**Belloxy**”).
7. Praxair, headquartered in Connecticut, USA, is an international gases company. Praxair is primarily active in manufacture and/or supply of industrial gases, medical gases and specialty gases. Apart from gases, Praxair also has a surface technologies business that supplies high-performance surface coatings and equipment. In India, Praxair is active, in both these product lines, directly and through its subsidiary Praxair India Private Limited.

¹ Belloxy is a joint venture between Linde India and Inox Air Products Limited (“**Inox AP**”).



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III. Proposed Combination

8. The proposed transaction relates to combination of Linde and Praxair under a newly incorporated holding company Linde Plc (“**New HoldCo**”), which will be owned by the Parties’ current shareholders (“**Proposed Combination**”). The Proposed Combination is envisaged to be achieved through the following parallel and coordinated measures:
- a. First, New HoldCo will acquire control of Linde by means of a voluntary exchange offer to the shareholders of Linde. As consideration, the Linde shareholders accepting the exchange offer will receive shares of New HoldCo (1.54 shares in New HoldCo for each Linde share); and
 - b. Second, a wholly-owned subsidiary (“**US Merger Vehicle**”) of New HoldCo will be merged with and into Praxair. All Praxair shareholders will become shareholders of New HoldCo (1 share in New HoldCo for each Praxair share).
9. As submitted, on the basis of the recent acceptance rate of 92% in the exchange offer for Linde, current Linde and Praxair shareholders are expected to each hold approximately 48% and 52% respectively of the shares of the New HoldCo after completion of the Proposed Combination. Once the Proposed Combination is completed, both Linde and Praxair will be indirect subsidiaries of New HoldCo.

IV. Investigation under Section 29 of the Act

10. The Commission, in its meeting held on 10.04.2018, considered the facts on record, details provided in the notice and the responses filed by the Parties, and formed a *prima facie* opinion that the Proposed Combination is likely to cause an appreciable adverse effect on competition (“**AAEC**”) in several relevant markets in India. Accordingly, in terms of Section 29(1) of the Act, a show cause notice dated 11.04.2018 (“**SCN**”) was issued to the Parties wherein the Parties were directed to respond, in writing, within



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thirty days of the receipt of the SCN, as to why investigation in respect of the Proposed Combination should not be conducted.

11. The Parties filed their response to the SCN on 14.05.2018 (“**Response to SCN**”) after seeking extension of three days. In terms of Section 31(12) of the Act, the extension of time sought by the Parties shall be excluded from the period provided in Section 31(11) of the Act.
12. The Commission, in its meeting held on 17.05.2018, considered and assessed the Response to SCN, third party responses received in terms of communication under Regulation 19(3) of the Combination Regulations and noted that submissions of the Parties, contesting the AAEC concerns expressed by the Commission in SCN, do not allay the said concerns. The Parties also proposed certain divestments in relation to helium and bulk markets along with the Response to SCN and submitted that the same would eliminate all the primary concerns raised by the Commission. In this regard, the Commission noted that the divestments relating to helium market were offered by the Parties in other jurisdictions and the same were yet to be accepted by said authorities. The divestment related to the bulk markets, *prima facie*, did not address all the AAEC concerns raised by the Commission in the SCN. Accordingly, the Commission was of the view that the divestments proposed in the Response to SCN cannot be accepted and competition concerns, as raised in SCN, continue to exist.
13. In view of the above, in accordance with Section 29(2) of the Act read with Regulation 22 of the Combination Regulations, the Commission decided to issue a direction to the Parties to publish details of the Proposed Combination within ten working days of the said direction for bringing the Proposed Combination to the knowledge or information of the public and persons affected or likely to be affected by such Proposed Combination. The said direction was communicated to the Parties *vide* letter dated 17.05.2018.
14. Accordingly, details of the Proposed Combination were published by the Parties in four newspapers and hosted on their respective websites on 26.05.2018 in Form IV, as



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contained in Schedule II to the Combination Regulations. The said details were also hosted on the website of the Commission. *Vide* such publication, the Commission invited comments / objections / suggestions in writing, in terms of the provisions of Section 29(3) of the Act, from person(s) adversely affected or likely to be affected by the Proposed Combination, within fifteen working days from the date of publication, *i.e.*, by 15.06.2018.

15. Pursuant to the said publication, the Commission received comments from various stakeholders, which were noted by the Commission in its meeting held on 27.06.2018. In terms of Section 29(4) of the Act, the Commission decided to seek clarifications on the comments submitted by stakeholders and certain other relevant information from the Parties. Accordingly on 29.06.2018, a letter was issued to the Parties seeking required details, in terms of Section 29(4) of the Act, the response to which was submitted by the Parties on 16.07.2018. The Commission in its meeting held on 06.08.2018 considered the said response of the Parties and decided to propose modification to the Proposed Combination and accordingly proceed with the case in accordance with the provisions contained in Section 31 of the Act.

V. Competition Assessment – Industrial, Medical and Specialty Gases

16. The Parties' activities in India overlap in the production and supply of gases which can be classified in following broad product segments: (i) Industrial gases; (ii) Medical gases; and (iii) Speciality gases. The activities of the Parties also overlap in the provision of medical engineering services to hospitals and healthcare facilities (*i.e.* installation of systems for circulation and supply of gas). Further, Linde is also engaged in a related business of constructing and supplying plants for production of industrial gases. Accordingly, the Commission carried out the assessment of the Proposed Combination for likelihood of raising any AAEC concerns in the aforesaid overlapping product segments and related product segment of construction and supply of plants for production of industrial gases.



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A. Delineation of Relevant Product Market(s)

1. Description of industrial, medical and specialty gases

17. Industrial gases comprise all the gases and mixtures of gases provided by gas suppliers for various industry and research applications and commonly include gases such as oxygen, nitrogen, argon, acetylene, hydrogen and helium. Medical gases comprise gases used for medical applications such as oxygen, nitrogen, carbon dioxide and nitrous oxide (N₂O). Specialty gases comprise a large number of gases and gas mixtures which can be distinguished from standard industrial gases on the basis of price, quantities sold, application or method of supply. These gases are generally classified into six main groups *viz.*: (i) refrigeration gases, (ii) electronic specialty gases, (iii) noble gases and noble gas mixtures, (iv) packaged chemicals; (v) calibration and other gas mixtures; and (vi) high purity gases. All six groups of specialty gases comprise various individual gases and gas mixtures.

2. Delineation of relevant product markets per gas

18. The Commission observed that from the demand side, each of industrial gases, medical gases and specialty gases cannot be considered as substitutable with any other gas considering that each gas has different chemical and physical properties and therefore, each gas can be said to constitute a separate relevant product market.

3. Delineation of relevant product market by form of supply

19. Further, depending on the customer's needs, gases can be supplied by gas companies in liquid and gaseous form and through different supply modes *viz.*, tonnage, bulk or cylinder. The distribution in tonnage and cylinders is generally made in gaseous form while bulk distribution is generally made in liquid form. The industrial gases are sold in all the aforesaid supply modes, while medical gases are sold either in bulk or cylinder modes and specialty gases are sold only through the cylinder mode.



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20. There are significant differences between the aforesaid three supply modes from the demand and supply perspective. Tonnage supplies are considered appropriate for large users whose demand for gas is more than 30 tonnes per day (“**tpd**”), bulk supplies are considered appropriate for medium users with demand up to 30 tpd while cylinder supplies are appropriate for small users with daily requirement ranging from 5 to 50 litres. The gas supplies in tonnage mode are generally made from the plants located on or adjacent to the customer premises (“**On-site**”) while bulk supplies are made from off-site plants (which may be a standalone plant dedicated to bulk supply (“**merchant plants**”) or a captive or tonnage plant some capacity of which is available for bulk supply (“**piggy back plants**”). The cylinder supplies are also generally made from off-site locations (which can be the merchant plants or the piggy back plants with cylinder filling facilities or the cylinder filling stations). The pricing of tonnage supplies is generally the outcome of bidding processes and includes price of the gas to be supplied, plant installation cost, maintenance and facility charges *etc.* The pricing of bulk supplies is generally based on negotiations with separate pricing for gas, delivery charges, facility charges (storage tank and vaporising equipment installed at customer’s premises). The pricing of cylinder supplies is also generally based on negotiation. There are differences between the contract duration which is generally agreed for the aforesaid supply modes. While tonnage contracts are generally for a term of 10-20 years, bulk contracts are agreed for 3-5 years and cylinder contracts for 1-3 years.
21. Considering the aforesaid differences, the Commission observed that the category of customers being served by these three modes of supply are substantially different and therefore each gas market is required to be further classified by the mode of supply.

4. Delineation of relevant product market(s) for helium

22. The Commission observed that helium, one of the industrial gases, takes a particular position among the industrial gases, considering its value chain, starting from access to helium source, wholesale and retail operations of helium and within helium retail,



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supply in liquid and gaseous form. The value chain of helium comprises of the following steps:

Step I - Recovery of Helium: In the atmosphere, helium is found only in traces. Its separation from other gases in the air is, therefore, not economically feasible. Instead, helium is recovered through separation from natural gas from natural gas fields with a high concentration of carbon dioxide and/or nitrogen.

Step II – Refining and Liquefaction: Helium extraction facilities are located close to the sources of natural gas. These extraction facilities comprise of refinery (in which the crude helium is purified and refined) and the liquefaction plant. The extraction facilities may be run either by: (i) gas companies on their own or jointly with the owner of the helium sources; or (ii) the owner of the helium sources. In case of latter, the gas companies enter into long term direct supply contracts (usually between 5-15 years) with crude helium extractors / purifiers for sourcing of helium; the contracts may be further extendable for either a fixed term or on a yearly rolling basis. These long-term supply contracts are typically a variation of a take-or-pay mechanism on an agreed quantity. The buyer is required to take any volume that is eventually produced, rather than a volume agreed in advance. Volume is typically expressed as a fixed number or range, or, alternatively, a percentage of the source’s total production, depending on whether the source produces helium exclusively for a wholesaler or whether it is shared among many.

Step III – Transportation of helium to own trans-fill centers for retail sale and/or wholesale supply of helium to other gas companies: The industrial gas companies generally ship the purified helium from the production site either to their own trans-fill centers in the areas of consumption or to the trans-fill centers of other independent third party retailers. This transportation of helium is in liquid form in special low temperature containers (“**cryogenic containers**”) for preventing evaporation losses resulting from warming of the gas during transportation.



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Step IV - Retail supply of helium to end customers in liquid and gaseous form: At the trans-fill centre, the liquid helium is removed from the cryogenic containers and filled into smaller containers specifically used for helium. These smaller containers can be cryogenic “dewars” or ISO containers for resale in liquid form or loose cylinders or quads for sale in gaseous form. Once processed, helium is then transported to end customer primarily by road in the form and volume according to their needs.

23. On the basis of the helium value chain, it is observed that the first critical aspect of helium market is securing access to sources of helium. As stated above, the access to sources of helium can be direct in form of long term direct supply contracts with helium extractors or joint ownership of extraction facilities with the owner of helium sources. Apart from direct access, the helium industry is characterized by indirect access mechanisms in the form of back to back agreements, swap agreements and wholesale agreements between different gas companies. These agreements not only allow the gas companies an indirect access to helium but also allow the gas companies to shift supply of helium between regions thereby reducing transportation costs.
24. The aforesaid agreements differ from each other and those differences are relevant to the competition assessment. A back to back contract is generally entered into by those having direct access to sources of helium in a particular region with those gas companies which have such access in other region(s). A swap agreement is generally used for logistic optimisation by allowing shifting of individual helium supply between different regions without incurring transportation cost. In addition to back to back contracts and swap contracts, gas companies having primary/secondary access to sources of helium may also enter into wholesale agreements which are in the nature of classic supply agreements. In the alternate, those having access to sources of helium may consider directly transporting helium to their trans-fill centres for retail sale. These dynamics give rise to two different levels of helium supply with distinct characteristics viz., helium wholesale and helium retail. However, in this regard, it may be noted that due to the aforesaid specificities of the helium value chain, conditions of supply and prices in helium retail market are related to conditions in helium wholesale market which, in turn, depend on distribution of access to helium sources. Thus, for



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the purpose of competition assessment in helium retail market in India, the Commission observed that it is important to assess the overall helium market encompassing various levels of operations viz., access, wholesale and retail.

25. As regards the need for segmenting the retail market by form of supply, it is observed that the liquid and gaseous forms of supply of helium are also distinct. While liquid helium is often used for its uniquely low temperature (-269 degrees C), gaseous helium is used for its inertness, light molecular weight, high thermal conductivity and low boiling point etc. Accordingly, liquid and gaseous helium have their specific applications and therefore, retail supply of helium can further be classified in supply of helium in liquid form and gaseous form. In this regard, the Parties submitted that the trans-fill centres of all major helium suppliers in India are used for: (i) vaporizing, compressing and filling helium into cylinders for gaseous supplies; and (ii) the “re-packaging” of liquid helium into dewars for liquid supplies and thus, while there may not be demand side substitutability, there is significant supply-side substitutability between different forms of supply of helium in retail market. Taking into account the above submission of the Parties, the Commission considered overall helium retail market without any segmentation by form of supply.

5. Conclusion

26. Considering the aforesaid classification of gases and activities of Parties in India, following overlapping relevant product markets per gas are delineated for assessment of the Proposed Combination:
- Tonnage supplies of industrial gases viz., oxygen (“**T-GOX**”), nitrogen (“**T-GAN**”), argon (“**T-GAR**”) and hydrogen (“**T-GH2**”);
 - Bulk supplies of industrial gases viz., argon (“**LAR**”), carbon dioxide (“**LCO2**”), nitrogen (“**LIN**”), and oxygen (“**LOX**”);
 - Bulk supplies of medical oxygen (“**LMO**”);
 - Cylinder supplies of industrial gases viz., acetylene (“**GACT**”), argon (“**GAR**”), carbon dioxide (“**GCO2**”), hydrogen (“**GH2**”), nitrogen (“**GAN**”) and oxygen (“**GOX**”);



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- Cylinder supplies of medical gases viz., medical oxygen (“**MOX**”) and medical nitrous oxide (“**GN2O**”);
- Cylinder supplies of specialty gases viz., environmental mixtures, special application mixtures and other calibration mixers in calibration and other mixtures segments, inert noble gas mixtures and krypton in noble gases and mixtures, ammonia, ethane, hydrogen chloride, hydrogen sulfide, methane, propane, silane and mixtures and sulphur hexafluoride in packaged chemicals and argon, carbon dioxide, carbon monoxide, hydrogen, nitrogen and oxygen in pure gases; and
- Overall helium market encompassing access to helium sources and retail helium supply.

B. Delineation of Relevant Geographic Market(s)

27. The Commission considered it appropriate to delineate relevant geographic markets considering the mode of supply and level of operations duly recognizing the dynamics of individual gases.

1. Tonnage Industrial Gases

28. The Parties have submitted that all major industrial gas suppliers compete across India in bids for contracts to establish and operate tonnage plants for customers. It has been stated that the request for quotations issued by customers do not take into account the location of existing air separation units (“**ASUs**”) of a supplier as a limiting factor. In view of the above, it has been submitted that the competition for tonnage contracts is pan-India and geographic market for tonnage is at least national. The Commission is of the opinion that considering the ability of the gas companies to enter into contracts for supply of tonnage gases, nature of customers and the contract award model being followed, the relevant geographic market for assessment of the Proposed Combination may be considered as national.



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2. Bulk Industrial and Medical Gases

29. The Parties have undertaken a catchment area analysis to identify distances over which their products are typically delivered. To further the results of catchment area analysis, the Elzinga Hogarty Test (“**EH Test**”) has been applied. As regards LOX, LIN, LCO₂ and LMO, the Parties have submitted that based on catchment area analysis considering areas over which 90% of the sales are made from each plant, four regional markets can be delineated viz.,
- North Region comprising states of Delhi, Rajasthan, Haryana, Punjab, Uttar Pradesh, Himachal Pradesh, Jammu & Kashmir and Chandigarh;
 - East Region comprising states of Bihar, Jharkhand, Chhattisgarh, West Bengal, Odisha and entire North Eastern Region;
 - South Region comprising states of Karnataka, Andhra Pradesh, Telengana, Tamil Nadu, Kerala and Puducherry; and
 - West Region comprising states of Gujarat, Maharashtra, Goa and Madhya Pradesh.
30. As regards LAR, it has been submitted that LAR is priced higher than LOX and LIN and is shipped from the plant region to customers outside the region and conversely significant portion of LAR in a region is sourced from outside the region. Further, for LAR product planning and investment purposes, Linde considers a strategy on the basis of national demand and supply. In this regard, the Parties have pointed out the patterns of significant inter-regional supplies to emphasize that markets are not regional. Further, as stated, LAR pricing is relatively homogenous across regions with the average price per normal cubic meter (Nm³) of LAR in West, South and North being [...] respectively, whereas in the East, it is [...] per Nm³. Based on the above, it has been submitted that the market for LAR is national.
31. The response of the competitors of the Parties on the issue of relevant geographic market is mixed. While a few competitors agreed with the view of the Parties, others submitted that the markets can be narrowly defined in terms of clusters based on a



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radial distance of 250-300 kilometres from the manufacturing sources or the markets can be defined in terms of individual state.

32. The Commission noted that there are certain issues with catchment area analysis and EH test as applied by the Parties. For example, only the LOFI statistic has been considered for EH Test in absence of information relating to total demand of an area/state. The catchment area analysis has been undertaken considering a pre-determined threshold of 90%. From the perusal of dispatch data analysis, the Commission further observed that for LOX, LIN, LMO and LCO2, catchment areas can indeed be narrowly defined and in some cases, the same may be restricted to individual state or a combination of two or more states but short of entire region. As regards LAR, the Commission observed that the market can be segregated as comprising of: (i) South and West regions; and (ii) North and East regions. However, it is further observed that notwithstanding the above limitations of analysis, based on the location of production plants of the Parties, overall plant level dispatch patterns and the fact that the change in relevant geographic market is not leading to a change in the overall assessment considering the facts of the case, the Commission considered it appropriate to consider regional geographic market for LOX, LIN, LMO and LCO2 in terms of the aforesaid four regions and for LAR as national.

3. Cylinder Industrial and Medical Gases

33. As submitted by the Parties, typical shipping distances from the filling site for GOX and GAN in India is around 100-150 kilometres; 100-250 kilometres for GAR; and up to 400 kilometres for GH2. The Parties have also submitted that most gas companies have a network of filling stations in each region with overlapping catchment areas from where they are able to serve customers in that region. It has also been stated that since the cylinder station requires supply of liquid gases and liquid gases can be shipped throughout the region, competition for cylinder market can also be said to be at regional level.



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34. The Commission is of the opinion that a similar approach as suggested in case of bulk markets can be followed in case of cylinder markets as well and accordingly, the relevant geographic market for cylinder gases can be considered in terms of four regions viz., North, South, East and West Regions.

4. Specialty Gases

35. The Parties have submitted that the market for specialty gases are at least national in scope for the following two reasons:
- i. The quantity of specialty gases required by customers is much smaller than that of industrial gases and customers do not show any preferences with regard to location of supplier and therefore it is common for gas companies to supply customers across the country from one location. Linde's specialty gases manufacturing site is located at Taloja in Maharashtra and Praxair's manufacturing sites are located in Mumbai and Chennai;
 - ii. Transport costs as a proportion of sale price even for extremely large distances are low. Linde's transport costs are estimated to be less than [...] % of sale price.
36. The Commission, considering the submissions of the Parties, is of the opinion that the market for specialty gases may be considered as national.

5. Helium access and wholesale market

37. At present, helium sources capable of recovering helium at conditions that enable marketing liquid helium on a large scale are located in Algeria, Australia, Poland, Qatar, Russia, Canada and USA. The Parties have long term direct supply contracts with crude helium extractors/purifiers like [...]. Considering that there are no viable sources of crude or refined helium in India and all helium sold in India is imported mainly from Qatar, a change in access to sources of helium in Qatar is likely to lead to a change in competition conditions in the Indian helium retail market and therefore the



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position in terms of access to sources of helium in Qatar becomes relevant to the competition assessment. Further, prices and competition conditions in Qatar market to a considerable extent are expected to change with change in global access position given the mechanisms of back to back agreements, swap agreements and classic wholesale agreements between various suppliers of helium. Thus, for the purpose of competition assessment of the Proposed Combination for helium market, the Commission considered the access to global sources of helium and also sources of helium in Qatar.

6. Helium retail market

38. The Parties have submitted that the Indian market for retail supply of helium is at least national. Given its high value, modest transportation costs and insignificant barriers to trade, it is economically viable to transport the product long distances across the entire country to supply customers (with retailers typically operating a single trans-fill centre servicing the entire country²). The costs of transportation have been submitted to account for about [...] % of the sales price for Linde and Praxair, respectively. From a demand perspective, it has been submitted that customers issue purchase orders to gas suppliers, without taking into account the location of their trans-filling centers as a limiting factor.
39. The Commission also examined the state-wise break up of helium retail sales in India. Based on the information received from the Parties, it is observed that substantial sales³ have been made by Linde from its trans-fill center in Maharashtra to Gujarat in the West, Rajasthan, Haryana, UP in the North and Telengana, Andhra Pradesh and Tamil Nadu in the South and by Praxair from its trans-fill centre in Maharashtra to Gujarat and Goa in the West, Uttar Pradesh and Haryana in the North and Tamil Nadu in the South. Considering the dispatch data and other submissions of the Parties, the Commission is of the opinion that the relevant geographic market for Helium retail may be considered as national.

² The Parties own one trans-fill center each in India (both near Mumbai) from where they supply customers across the country. Only one helium supplier TNSK has two trans-fill centres in India.

³ Calculated as 80th percentile of total sales.



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C. Assessment in terms of Section 20(4) factors

1. Markets for production and supply of T-GOX, T-GAN and T-GAR in India

a. Examination of constraints from possibility of in house production of gases

40. The tonnage relevant market entails an industrial gas supplier installing and operating a gas plant on or near the customer premises, from which gas is supplied to the customer. This mode of procurement of gases by tonnage customer is also called as external supply or EXS. The Parties have submitted that tonnage customers of industrial gases have another option for securing gas supply which entails the customer acquiring, owning and operating the gas plant (or ASU) itself, also called as an in-house plant or IHP. It has been stated that the IHP and EXS models are substitutable and the customers' ability to choose IHP represents a significant competitive constraint on the EXS mode.
41. The Commission observed that markets for sale of ASUs and gases are distinct in terms of characteristics and price. Even if it is argued that the end use in both the cases is sourcing of gases, there are substantial differences in the IHP and EXS viz., (i) the extent and pattern of expenditure; (ii) need for expertise and personnel to operate and maintain large ASUs; (iii) inability of customers to benefit from changes in technologies in the IHP mode *etc.* These factors imply that the risks associated with IHP and EXS model are significantly different and therefore self-production does not appear to be a viable alternative of external supply.
42. The Parties in this regard, *inter alia*, submitted that a customer would choose the option that is most economically feasible and commercially viable for their requirement on a net present value basis and that differences in pattern of expenditure does not dilute constraints. It was also submitted that the requirements to operate an ASU are not extremely technical and the expertise is easily available in the Indian market. As regards the inability of customers to benefit from changes in technology in the IHP



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mode, the Parties stated that the technology is frozen at the time a plant is installed (regardless of mode of supply), and there is no technological upgradation or retrofitting possible during the term of a contract and therefore applications technologies are irrelevant for tonnage, and storage technologies are also fixed at the time of installation.

43. In this regard, the Commission also considered the responses of the customers and competitors of the Parties. The Commission observed that almost all the competitors have submitted that IHP is not a viable alternative for EXS. Only one competitor indicated the two to be alternatives but qualified that the choice is affected by availability of qualified supplier of gas plants. The response of the customers of tonnage gases on this issue was mixed. While two customers indicated IHP to be a viable option, the others indicated that IHP is not a viable option for them. However, it is important to note that even those customers who indicated IHP to be a viable option highlighted that skilled manpower is an issue in going for IHP. It has also been stated by customers that opting for IHP may require them to enter into a contract with an industrial gas supplier for operation and maintenance of the plant.

44. Thus, the responses of the customers and competitors confirm that IHP cannot be considered as viable option for EXS for all tonnage customers and even for those tonnage customers who do consider IHP as an option, the substitutability and choice becomes limited considering the skilled manpower issues. Accordingly, the Commission observed that IHP cannot be considered to be a viable option for EXS and that IHP (and correspondingly sale of ASUs) is a different market altogether.

b. Strong position of Linde in market for sale of ASUs mitigate the competitive constraints from IHP, if there were any

45. Notwithstanding the fact that aforesaid assessment based on which IHP is not considered as a viable alternative of EXS, for the sake of holistic assessment, the Commission examined the competition scenario in the market for supply of ASU plants for in-house production of gases by customers.



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46. The Commission considered bidding data submitted by the Parties for the period 2005 to 2017 for IHP and EXS contracts. The Commission observed that out of a total of 61 bids invited by tonnage customers from 2005 to 2017, 23 bids were awarded for IHP plants and 38 for EXS. Out of 23 IHP bids, Linde has bagged the contract in [...] bids. This data shows that Linde is involved in supply of around [45-50] % IHP plants during the last 12 years. Further, it is involved in operation and maintenance in [...] other IHP plant for tonnage gases (other than T-GH2).
47. The Parties in this regard submitted that the transaction will not impact the IHP supply options available to the customers as only one of the Parties i.e., Linde, is present in that business. Further, as regards the market structure of market for sale of ASUs, the Parties submitted that they face competition from several Indian companies such as MSPL Gases, Bhagwati Oxygen Limited, AIMS Industrial Limited which have won tonnage contracts in India, apart from several strong Chinese players who have entered the IHP segment and implemented several projects in India. It was also stated that all competitors compete for and serve the same set of customers.
48. As regards the submissions of the Parties that the transaction will not impact the IHP supply options as Praxair is not present in this segment, the Commission observed that as Linde and Praxair are present in EXS market and the Parties have submitted IHP as imposing competitive constraints on EXS, the fact of lack of overlap in this segment is inconsequential to the assessment in India as the Combined Entity will be operating in both IHP and EXS segments in India. The key concern in this regard is whether post the Proposed Combination Linde will be as incentivized as before in pushing for sale of ASUs or the changes in market structure of EXS alter the incentives of Linde in market for sale of ASU. The same concern has been expressed by a competitor of the Parties who submitted that the combination of Praxair and Linde could eventually limit the availability of gas plants on sale to tonnage customers and the interchangeability of the two options for securing their needs in case the incumbent Engineering division does not promote the sales of its gas plant to tonnage customers.



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49. As regards the supplier options for ASUs, the tonnage customers made submissions on the aspect of sourcing of gases from non-gas companies. One customer submitted that the non-gas companies have not been interested in this segment of the business and that even if they can set up gas plants at par with industrial gas companies, it (the choice) will depend on various O&M and commercial aspects. Another customer submitted that non-gas companies can setup and operate a small size gas plant but the technology for setting up a medium/ large size gas plant is concentrated with few companies. It was further stated that the expertise and personnel to operate gas plants are in short supply and difficult to get and developing expertise in operating these plants takes time. Hence most customers enter into contracts with one of the gas companies for reliable and safe operation of the gas plants.
50. Based on the aforesaid, it is observed that Linde is the most significant player in the market for sale of ASUs in India and post the Proposed Combination, the merged entity would gain significant presence in both the markets for tonnage supplies of gases and the market for sale of ASUs for in-house production of gases. Thus, it is observed that even if it is assumed that IHP plants are indeed a credible alternative to EXS, the strong position of Linde in market for sale of ASU plants imply that post the Proposed Combination, the competitive constraints, if any, arising from customer's threat to opt for IHP plants would stand mitigated to a large extent and Linde may not be incentivized to promote sale of ASUs to tonnage customers after the Proposed Combination.

c. Market structure

51. In accordance with the aforesaid findings on lack of constraints on EXS from IHP, the Commission considered the market shares of the Parties and their competitors in the markets for T-GOX, T-GAN and T-GAR in India (excluding the value of captive consumption resulting from IHP plants).
52. The market shares of the Parties and their competitors based on information submitted by the Parties are set out in Table 1:



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Table 1: Market shares of tonnage gases in India [In percentage]

Gas	Linde	Praxair	Combined	Air Liquide	Inox AP	JSW	Goyal	Others
T-GOX	[30-35]	[25-30]	[55-60]	[0-5]	[10-15]	[5-10]	[0-5]	[15-20]
T-GAN	[15-20]	[35-40]	[55-60]	[0-5]	[10-15]	[5-10]	-	[20-25]
T-GAR	[15-20]	[20-25]	[35-40]	-	[15-20]	[5-10]	-	[40-45]

Source: Parties estimates

53. The Commission observed that Linde and Praxair are already market leaders in the markets for T-GOX, T-GAN and T-GAR in India and the Proposed Combination is bringing top 2 players together, thus creating the largest supplier of tonnage gases in India. In terms of standard concentration analysis, the Proposed Combination is going to cause significant increase in concentration in what is an already concentrated market (with pre transaction HHI > 2000) as reflected in incremental market shares and incremental HHI. Further, it is observed that all competitors of the Parties in the India market are significantly weaker and that the Proposed Combination has the impact of further widening the gap between the market leader and other competitors. In case of T-GOX and T-GAN, Inox AP is the next competitor and it does not even have 1/4th of the share of the combined entity in either of the gas markets. In case of T-GAR, the share of Inox AP is not even half of the share of the Combined Entity.
54. Furthermore, the aforesaid market shares which are depicting very strong position of the Parties in tonnage gases may in fact be overestimating the degree of competitive constraints on the Parties and underestimating the market power of the merged entity due to inclusion of substantial shares attributed to the “other competitors”. It is noted that the “other competitors” accounting for around [15-20]%, [20-25]% and [40-45]%, respectively of the market share for oxygen, nitrogen and argon have been included in the market share estimates. In this regard, it is noted the market share of all the companies which have won even a single bid out of 38 bids (for which the data was



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submitted by the Parties) during the period 2005 till date have already been considered in aforesaid estimates. Further, considering the nature and requirements of tonnage supplies, it does not seem plausible that there would be such a strong presence of unidentified players. Therefore, the “other competitors” only seem to reflect either the presence of a separate unorganized/informal/small segment of market which caters to a separate segment of customers which does not overlap with the customer segment being catered to by the Parties or the same is purely on account of overestimated market size.

55. In this regard, the Parties submitted that “other competitors” represent unallocated revenues and that lack of visibility on those cannot be interpreted as lack of constraints. However, the responses from tonnage customers/competitors confirmed the views of the Commission. Almost all of tonnage customers contacted by the Commission submitted that the major players considered by them as competing for tonnage supplies are Linde, Praxair, Air Liquide and Inox AP. Further, all the competitors while submitting their market share estimates allocated the market between the aforesaid four players. Based on the aforesaid, the Commission observed that market shares attributed to “other competitors” do not seem to represent any competitive constraints on the Parties.
56. Thus based on the analysis of market shares (with and without considering the competitive constraints from market shares attributed to “other competitors”), the combined market shares and incremental market shares are highly significant.
57. The Parties submitted that high market shares in markets for tonnage gases do not translate into market power considering, *inter alia*, that current market shares represent past competition due to long duration of tonnage contracts. The Parties submitted that they benefitted from an early mover advantage by virtue of being the first of the global industrial gas companies to enter the Indian market which led them to win number of contracts in the 1990s and 2000s, giving rise to their shares today on account of the long term of such contracts. However, the Parties further submitted that this early mover advantage has been steadily reducing in impact (particularly in recent years),



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and thus these shares increasingly overstate the competitive position of the Parties, and understate the competitive position of new entrants, who have begun to garner increasing market share by participating in and winning new tenders. The Parties submitted that during the period 2008-12, on a combined basis, they won [...] out of [...] tenders for EXS but from 2013-2017, they have won only [...] out of [...] tenders which is representative of increased competition intensity. The Parties further stated that all instances of Linde and Praxair being sole bidders for any tender were pre-2011.

58. The Commission considered the bidding data submitted by the Parties and observed that while certain recent bidding results do point to an increased competition intensity, what is important for the competition assessment of the Proposed Combination is how the Proposed Combination would influence the competition intensity and whether the increased competition intensity would be able to constrain the Combined Entity. The Commission examined various factors for the analysis of the same.

The incumbency advantage

59. The Parties have submitted that switching is completely costless and there is relatively little incumbency advantage and following the termination of contract the customer may either continue with existing supplier, opt for IHP mode or issue RFQ and enter into a new contract with another player. The Parties stated that all the costs related to a particular project are factored into the original contract, so that there are no sunk costs remaining at the end of the contract which implies that the customers are free to opt for any of the aforesaid options. As an example of lack of incumbency advantage, it has been stated that given the stage at which Indian gas industry is, so far only [...] contracts have come up for renewal, [...] of Praxair and [...] of Linde. [...]. It has been further stated that the only factor that could possibly lead to an incumbency advantage is a personal relationship with the supplier, but the sheer value of a typical contract means that such considerations are usually subverted in favour of finding the best price.



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60. The Commission observed that the successful bidders of tonnage contracts have certain advantages at the time of renewal of tender which can imply the Parties ability to retain their early mover advantage. The first advantage that can be associated with incumbent is that it knows when a contract will expire and is therefore best placed to offer a renewal at an early stage. Since the incumbent has detailed knowledge of the customer, they have an advantage in responding to the offers for renewal and in subsequent negotiations. Further, the fact that its sunk costs would be zero imply that the incumbent will be able to offer more advantageous financial terms for the follow on contract as compared to any new bidder who would have to incur and consequently recover sunk costs. As regards the submissions that [...], it may be noted that since only [...] tenders have been renewed, the same cannot be taken as indicative of any definite trend.
61. The Commission also considered the responses of the tonnage customers and competitors in this regard. While almost all of the tonnage competitors have indicated that there are incumbency advantages, the responses of the tonnage customers have been mixed. While all of the tonnage customers have pointed to a fresh analysis at the time of renewal, it has also been pointed out by a few customers that they look for continuity with the incumbent and may approach the competitors only when the talks with incumbent fail. Thus, it seems that there is a definite incumbency advantage and non-renewal of a bid is more representative of commercial factors prevailing at the time of renewal rather than lack of incumbency advantage.

The Bulk market inter linkages

62. Though tonnage, bulk and cylinder modes have been identified as separate markets, yet these are inter-related because a large part of quantities that are supplied in the bulk market are produced in the piggy back tonnage plants and gases supplied in cylinders are derived from bulk supplies. Thus, if a party has strong position in bulk and cylinder markets, they may be in a position to foreclose their rivals in tonnage markets. The Parties have themselves indicated that the base facility fee as a percentage of CAPEX



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has gone down over the years. The practical consideration behind negotiating to such levels seems to be the ability to compensate from sale of bulk liquids and cylinders.

63. On the aspect of these inter linkages translating into competitive advantages, the Parties submitted that (i) they would continue to face significant constraints in bulk markets which means that the extent of cross subsidisation cannot, therefore, increase; (ii) given that they already have a large unutilised bulk capacity, commercially, their priority is to utilize that excess/unused capacity and that there is no incentive and commercial sense for the Parties to subsidise a tonnage contract on account of any unconfirmed hypothetical gains in the bulk segment; and (iii) piggy back in tonnage is not necessarily the best option to supply to bulk market.
64. However, the responses of customers and competitors on this aspect confirm the views of the Commission. In this regard, one tonnage customer submitted that the gas suppliers like to compete for putting a gas plant at the location where they forecast that the plant location would allow sale to outsiders and would be profitable. Almost all the competitors of the Parties have submitted that bulk consideration plays the role while bidding for on-site plants. It has been stated that considering bulk is a typical industry practice and a way to optimize on-site plant and expand reach around the plant. It has also been stated that if power rate from tonnage is competitive, a competitor may also be willing to supply gases to tonnage customers on lower margins.
65. The Parties have a substantial presence in bulk gases markets as will be noted in subsequent sections of this report and with the Proposed Combination, the transportation and distribution network of the Parties will be strengthened significantly allowing the Parties further incentive and ability to try and hold and expand their access to piggy back plants and reinforce their position in both tonnage and bulk markets.
66. The focus of analysis of a bidding market is to examine whether the Combined Entity would gain a position where it can force the exclusion of competitors when the new bid is invited. Considering that the Parties would be incumbent in most of the renewal



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bids and they would have a highly significant presence in the bulk market, the Commission observed that the Parties would be in a position to foreclose their rivals in tonnage markets for oxygen, nitrogen and argon.

67. Thus, based on the existing market structure analysis, the Commission is of the opinion that the Proposed Combination and the resulting market structure is likely to result in AAEC in markets for T-GOX, T-GAN and T-GAR.

d. Potential competition

68. The Parties have stated that entry into the tonnage markets is relatively easy and is not restricted by the regulatory framework or industry dynamics. It has been stated that economies of scale are not a relevant barrier to entry in the tonnage market and that intellectual property rights generally do not play a significant role and the gases are not patent protected. It is further stated that the cost of setting up a small standalone ASU of around 100 tpd would be around Rs. [...] Crores. In this regard, it has also been stated that companies such as Taiyo Nippon Sanso (“TNSI”), Air Water and SICGILSOL are contemplating entering the bidding for tonnage contracts.
69. The Commission observed that the Parties have emphasised the role of technology in the gases sector. It has been stated that since industrial gases are relatively homogenous products with little or no product differentiation, gas companies build on expertise in application technologies (i.e. storage and delivery) to attract new or retain existing customers. As regards the investment in R&D, in 2014, 2015 and 2016, Praxair spent \$96 million, \$93 million and \$92 million respectively for its global research and development activities. The Commission is of the opinion that considering the importance of technology and scale of investments required in R&D, viewing entry only in terms of cost of setting up an ASU is not appropriate and technology, R&D, experience, existing market position seem to be plausible entry barriers.
70. Moreover, it is important to note that the existing market is already characterized by presence of global companies such as Air Liquide and Air Products apart from the



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Parties and despite their presence, the Parties have been able to maintain significant presence in the Indian market which further dilutes the competitive constraints posed by new entrants such as TNSI, SICGIL SOL or other entrants of the scale and size which the Parties have considered. The Commission's views on entry being difficult and requiring substantial time and cost have been confirmed by all the competitors of the Parties.

71. Thus, there does not seem to be a strong potential competition consideration which can address the competition concerns emanating in the existing scenario.

e. Removal of a close and effective competitor

72. As regards whether the Proposed Combination would lead to removal of a close and effective competitor, the Commission observed that the Indian tonnage gases market is primarily comprised of three major players (who have bid win ratios exceeding 10%) viz. Linde, Praxair and Inox AP. In fact, globally the market is characterized by presence of 4 significant players with Air Liquide being the fourth player; in India, Air Liquide has negligible presence. Under the circumstances, it seems clear that that the Parties are close and effective competitors of each other and the merger would lead to elimination of most significant competitive constraints.

f. Countervailing buyer power

73. The Parties have submitted that the largest part of demand for tonnage gases is generated by three steel companies viz., SAIL, JSW Steel Limited ("JSW") and Tata which implies that the buyers' side is highly concentrated. It has also been stated that other customers are also large and sophisticated players from petrochemical, paper, glass industries etc. As regards IHP, it has been stated that without conceding that IHP may not be interchangeable with EXS, it still represents a tool that buyers may use to discipline sellers.



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74. It may be noted that countervailing buyer power is not simply a function of the size and scale of the buyers or the degree of concentration on the buyers/suppliers side. The key factor for its consideration is the availability of options to the buyer to thwart any attempt to increase market prices by the merging parties. The plausible option in this regard was the threat to resort to IHP mode. However, as discussed above, IHP and EXS do not seem to be interchangeable and therefore IHP threat does not seem practical for customers to discipline the supply side. Further, the fact that the Parties have maintained strong market shares for a long period of time indicate to some extent that these players are the most preferred amongst all the tonnage gas suppliers and buyers do not consider switching to others as a highly plausible option. In view of the same, it does not appear that the buyers in tonnage gas markets have significant buyer power. Further, as has been discussed above, the gases sector is a technology sector and the firms who are constantly developing the application technologies, to increase efficiency, are likely to be preferred by the customers. This also limits the buyer power as the decision to purchase here is simply not a function of price but also various non-price factors such as the background, experience of the gas company *etc.*
75. Most of the competitors have stated that there is some buyer power but the same has been qualified to state that it depends upon infrastructure (to be provided by tonnage customer), power cost, scope of profiting from sale to outsiders *i.e.*, bulk sales and industrial house *etc.*
76. Considering the overall responses from customers and competitors, the Commission observed that countervailing buyer power may depend on various factors as brought out by customers/competitors and it emerged that all the customers of tonnage gases may not have the buyer power to constrain the Combined Entity.

g. Conclusion

77. Considering the totality of factors; high market shares, significant changes in market structure, the elimination of an effective competitor, entry barriers and consequent lack of potential competition, lack of buyer power with all tonnage customers, the potential



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ability of the Parties to leverage their strong position in bulk markets in tonnage markets, the Commission is of the opinion that the Proposed Combination is likely to cause an AAEC in market for T-GOX, T-GAN and T-GAR in India.

2. Market for T-GH2 in India

(a) Examination of constraints from possibility of in house production

78. The Parties submitted that a significant majority of the tonnage hydrogen requirement (around 91%) in India is met through IHP (e.g. at petrochemical refineries). In the EXS segment, the market was indicated to comprise of only 10 hydrogen supply contracts. One customer of tonnage hydrogen indicated that they consider IHP as a viable alternative to EXS while others pointed to the lack of substitutability between the two. The Commission observed that while IHP may be a viable alternative to EXS for some buyers, it may not be so for all buyers of T-GH2. Accordingly, considering the factors differentiating between IHP and EXS, the Commission examined the tonnage hydrogen market considering only the EXS.

(b) Market structure

79. As stated above, the market for production and supply of T-GH2 comprises of only around 10 contracts. The Commission observed that out of the aforesaid 10 contracts, 2 contracts were large requiring supplies of more than 1,00,000 Nm³/hr, 6 contracts were very small requiring less than 100 Nm³/hr and 2 contracts were relatively small requiring less than 1000 Nm³/hr.

80. The Commission considered the win-bid ratios and observed that the market structure is mixed with Linde winning [...], Praxair, Air Liquide and Inox AP winning [...] and Air Products winning [...]. The Commission further observed that in terms of market share analysis, the increment resulting from the Proposed Combination is not significant regardless of the basis for computation of market share.



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81. Thus, considering the bidding positions in T-GH2 market wherein different competitors have been able to win contracts out of limited opportunities and insignificant incremental market share, the Commission is of the opinion that the Proposed Combination is not likely to lead to a significant change in the market structure of T-GH2.

(c) Conclusion

82. On the basis of the aforesaid, the Commission is of the opinion that the Proposed Combination is not likely to cause an AAEC in the market for supply of T-GH2 in India.

3. Regional bulk markets for industrial and medical gases viz., LIN, LOX, LCO2 and LMO and pan-India market for LAR

(a) Examination of constraints from bulk liquids produced and sold by in-house producers and resellers

83. The Parties have submitted that a number of industrial companies (like manufacturers of steel, fertilizer, *etc.*) operating IHP plants supplying tonnage products to their own business also sell gas which is in excess of their own requirements as liquid in the bulk market. It has been stated that IHP players have certain advantages over gas companies such as:
- i. The gas companies procure power from the state grids at average grid prices of INR 7 per KWH whereas IHP players generate their own power from in-house power plants at an average price of INR 4 per KWH;
 - ii. IHP players do not need to invest a significant amount in infrastructure required for supplying the products to end customers, as they encourage wholesale resellers to procure the product from their plants.



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84. The IHP players are stated to include players such as Bhushan Steel, SAIL Bokaro, JSPL, NINL, Jayaswal Neco, Monnet Ispat, Electro Steel, JSW Dolvi, JIGPL Bellary, SAIL Bhilai, JSW SISCOIL and RINL. It has been stated that in addition to direct sales by IHP producers, there exists a multitude of resellers who sell bulk gases primarily sourced from IHP plants. As stated, these resellers require significantly lower investments as they do not have to incur capital costs to set up production/distribution facilities and they may simply invest in road tankers that cost approximately Rs. 35 lakh per tanker.
85. Specifically in case of LAR, it has been stated that a large quantity of it is sold by various fertilizer companies located across India such as Kribcho, Indo Gulf Fertilizers, Zuari Fertilisers, Gujarat State Fertilizer Corporation, Rashtriya Chemicals & Fertilisers, and National Fertilizers Limited. As stated, LAR produced by IHP players and fertilizer plants constitutes nearly 40-45% of the overall capacity of the market.
86. As regards consumer preferences, it has been stated that end user does not have a specific preference for the source of the product and is instead interested in obtaining the product at the lowest possible price and that the IHP-reseller combinations are able to price aggressively as they do not face the same cost constraints as the gas companies and have significant excess capacity.
87. Based on the aforesaid, the Parties submitted that they are subjected to significant competitive constraints from IHP-Reseller combination and the Parties put their market share to around [40-45]%.
88. The Commission observed that while some of the IHPs are involved in sale of bulk liquids but considering their business models, it seems that they are either not catering to the consumer segments which are catered by the Parties or even if they may be catering to the same consumer segment, they are not in a position to exercise competitive constraints on the Parties or other gas companies engaged in sale of bulk liquids. These observations are based on the following:



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- (i) The purchasers of bulk liquids require storage tanks for storing the liquid and vaporising facilities for gasification of liquid. The gas companies may lease the aforesaid facilities for a monthly fixed fee (known as facility charge). The IHP players are not engaged in provision of these facilities;
 - (ii) Gas companies have their own distribution network while IHP players have been stated to be making sales on “ex-works” basis. Though, the Parties have submitted that it is a cost advantage to the IHP, it is actually a competitive disadvantage which greatly reduces the reach of the IHPs. Even if the same may be taken care of to some extent by the resellers, it is to be noted that even resellers do not have the required infrastructure, technology and distribution network and reach to compete with global players such as the Parties; and
 - (iii) As noted above, the development of technologies for applications and storage have been stated as a competition tool and therefore considering the IHP players who may be producing and selling bulk gases as a by-product only without even trying to develop such technologies and compete with Parties as offering competitive constraints to gas companies such as the Parties does not seem appropriate.
89. In this regard, a submission by the Parties regarding resellers being effectively an unorganized segment of the market is particularly noteworthy as the same seems to be representative of actual competition dynamics. Considering the aforesaid difference, it seems that IHPs may indeed be catering to a small unorganized consumer base which may not significantly overlap with the customer base of the Parties.
90. The views of the Commission have been confirmed by the customers and competitors of the Parties. All the competitors of the Parties have indicated that the share of IHPs in bulk markets would be around [10-15]% (as against [40-45]% estimated by the Parties). The competitors of the Parties have further cited several reasons for lack of constraint from IHPs viz. erratic supplies, lack of know-how, no investments in “facilities” or credit comfort. One competitor while agreeing that IHPs sell cheap has added that they lose out because of their limited reach and low volumes. Almost all of



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the customers have also submitted that IHP supplies are not reliable and their prices are short term. One customer who has submitted that in case of shortage supplies can be taken from other sources and sometimes IHPs auction gases at low price has also put IHP share at [10-15]%. Most importantly, the resellers who as per the Parties complete the value chain of IHPs in bulk market have also denied IHPs having any substantial presence devoid of any constraints on industrial gas companies.

91. Based on the aforesaid, the Commission is of the opinion that IHP-Reseller combination is not in a position to impose significant competitive constraints on the Parties.

(b) Market structure

LCO2

92. As regards LCO2, the activities of the Parties overlap only in the West Region in India and the Parties appear to be smaller players both at regional level and India level with combined market share of less than 10%. The incremental market share and HHI is insignificant to cause any change in market dynamics. The LCO2 market is characterized by presence of significant competitors including market leader SICGIL [30-35]%, ACPL [30-35]% and other suppliers of LCO2 which would continue to exercise significant competitive constraints on the merged entity. Thus, the Proposed Combination is not likely to significantly influence the market dynamics and consequently does not raise any competition concerns in the market for LCO2 in West Region in India.

LOX, LIN and LMO

93. As regards LOX, LIN and LMO, the market shares of the Parties and their competitors based on information submitted by the Parties are set out in following Table 2:



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Table 2: Market shares of LOX, LIN and LMO in overlapping East, South and West Regions of India [In percentage]

Gas	Linde	Praxair	Combined	Air Liquide	NOL	Inox AP	EIGL	Bhoruka	Captive surplus and Others
East Region									
LOX	[5-10]	[5-10]	[10-15]	-	-	[0-5]	[5-10]	-	[75-80]
LIN	[10-15]	[10-15]	[20-25]	-	-	[0-5]	[5-10]	-	[60-65]
LMO	[15-20]	[10-15]	[25-30]	-	-	[10-15]	[25-30]	-	[25-30]
South Region									
LOX	[10-15]	[15-20]	[25-30]	-	[5-10]	[5-10]	[5-10]	[0-5]	[30-35]
LIN	[5-10]	[35-40]	[40-45]	-	[0-5]	[25-30]	[5-10]	[0-5]	[15-20]
LMO	[15-20]	[5-10]	[20-25]	-		[35-40]	-	[5-10]	[30-35]
West Region									
LOX	[20-25]	[5-10]	[30-35]	[5-10]	-	[35-40]	-	-	[20-25]
LIN	[10-15]	[5-10]	[20-25]	[0-5]	-	[20-25]	-	-	[50-55]
LMO	[20-25]	[0-5]	[25-30]	[5-10]	-	[55-60]	-	-	[5-10]

Source: Parties estimates



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94. Before going into analysis in terms of aforesaid market shares, another factor which is important to note is that the bulk markets seem to be characterized by presence of different types of competitors viz., (i) global gas companies such as Linde, Praxair, Air Liquide and Air Products (directly and through its joint venture Inox AP) engaged in provision of range of industrial, medical and specialty gases and possessing technology required to manufacture gases or having direct/secondary access to global sources of gases/inputs required in manufacturing of gases; (ii) local players such as Bomoxy, Shreeram *etc.* who are engaged in production and sale of a few gases and are present in few regions in India. These companies may not necessarily have their own manufacturing technologies and may need to source the gas manufacturing units from others; (iii) other local players who are small and relatively unorganized and may be engaged in provision of a few gases in selected areas either by production of gases as by products or otherwise or by way of resale.
95. In defining the markets, only those products or areas are considered whose competitive significance is commensurate with the market shares that they will lead to. Similarly, all the aforesaid players cannot be said of equal competitive significance. Under such situations, the current market shares, wherein significant market shares are attributed to “other competitors”, may underestimate the presence of the Parties.
96. Based on the aforesaid it is concluded that like the IHP-Reseller Combination, “other competitors” may also not be exerting significant competitive constraints on the Parties. Accordingly, the Commission considered the market shares of the Parties for LIN, LOX and LMO in the most conservative manner only including the actual sales of the Parties and other industrial gas competitors.
97. The market shares of the Parties and their competitors in various markets for bulk gases considering only the major industrial gas players are set out in following Table 3.



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Table 3: Market shares of LOX, LIN and LMO in overlapping East, South and West Regions of India (In percentage)

Gas	Linde	Praxair	Combined	Air Liquide	Inox AP	EIGL	SICGIL
East Region							
LOX	[30-35]	[35-40]	[70-75]	-	[10-15]	[15-20]	-
LIN	[30-35]	[40-45]	[70-75]	-	[10-15]	[15-20]	-
LMO	[50-55]	[25-30]	[75-80]	-	[20-25]	-	-
South Region							
LOX	[15-20]	[30-35]	[50-55]	-	[20-25]	[10-15]	[10-15]
LIN	[0-5]	[35-40]	[40-45]	-	[35-40]	[15-20]	[5-10]
LMO	[30-35]	[20-25]	[50-55]	-	[40-45]	-	[5-10]
West Region							
LOX	[25-30]	[10-15]	[35-40]	[0-5]	[55-60]	-	-
LIN	[25-30]	[15-20]	[40-45]	[10-15]	[45-50]	-	-
LMO	[30-35]	[5-10]	[35-40]	[0-5]	[55-60]	-	-

Source: Information obtained from Parties and third parties

98. Thus, based on the aforesaid, it may be observed that regardless of the way market shares are computed (i.e., by including other competitors and captive surplus and discounting the same in analysis for lack of competitive constraints or by including market shares considering only the major industrial gas suppliers), the Proposed Combination is likely to result in significant change in market structures for LOX, LIN and LMO in in the South and East Regions.



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LAR

99. The market shares of the Parties and their competitors in market for LAR (i) as per Parties estimates; and (ii) considering only the major industrial gas players are set out in following Table 4.

Table 4: Market shares for LAR in India

Gas	Linde	Praxair	Combined	Air Liquide	Inox AP	EIGL	Captive Surplus and Others
As per Parties Estimates							
LAR	[25-30]	[30-35]	[55-60]	[0-5]	[15-20]	[0-5]	[20-25]
Market shares considering only major industrial gas players							
LAR	[25-30]	[35-40]	[60-65]	[5-10]	[25-30]	[0-5]	[0-5] (SICGIL)

100. The India LAR market is highly concentrated with pre-transaction HHI exceeding 2000. The Proposed Combination involving two of the three top producers will result in creation of the largest supplier of LAR in India. The market share of the Parties for LAR in India range from [50-55]% (as per their own submissions) to around [60-65]% calculated on most conservative basis with an increment of [25-30]%. Thus, it is observed that the Proposed Combination has the impact of significantly increasing the degree of concentration in an already highly concentrated market. Further, it is observed that all competitors of the Parties in the India market are significantly weaker and that the Proposed Combination has the impact of further widening the gap between the market leader and other competitors with Inox AP being a distant second and having less than half the share of the combined entity.

(c) Interlinkages with tonnage markets

101. The Commission observed that the Parties produce a substantial share of the total production of bulk gases in piggy back plants or on-site plants as opposed to merchant



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plants. Praxair's production ratio of LOX, LIN and LAR in on-site plants to merchant plants is [...] respectively and Linde's ratios are [...] respectively. It is important to note that there are certain advantages associated with on-site plants such as lower infrastructure costs in case land and power are provided by the on-site consumer. As stated by the Parties, all the costs related to a project are factored in the project so that there are no sunk costs at the end of each contract. The same implies that the Parties producing bulk gases in on-site plants are able to subsidise a part of the production process which relates to production of gases in an ASU. Thus, a strong presence in the tonnage gases as the Parties have is likely to confer strong competitive advantages in the bulk markets and vice versa.

102. In this regard, the Parties submitted that on-site plants do not benefit from lower costs considering that the capital expenditure of a piggy back plant can be allocated to the bulk business only in certain situations and to a limited extent and even that may be offset by the distance of an on-site plant from bulk customers, restricted operations (in consonance with customer requirements). However, all the competitors of the Parties have confirmed the views of the Commission. All the competitors have submitted that tonnage plants are intrinsically cost effective. One competitor has highlighted the disadvantage of location of an on-site plant being determined by the tonnage customer and not by the location of the merchant market. However, it has been stated that the higher logistic cost is normally more than compensated by other advantages. Another point which has been made by the competitors is that LAR requires large ASUs to produce and that tonnage plants are major sources of LAR. Further, it been stated that LAR is a strategic product (for the reasons detailed in subsequent paras) and therefore any player with significant share in LAR may gain the ability to indulge in exclusionary practices.

(d) Strategic advantage of significant presence in LAR market

103. The Parties have agreed that typically Linde and Praxair only have one bulk contract per customer and such contract can be for one product or multiple products. As regards the proportion of consumers purchasing all the three liquids to total consumers, the



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Parties have submitted that around less than 10% of Linde's customers and less than 10% of Praxair's customers purchase all three products from them. In this regard, the Commission is of the opinion that the Parties may gain position to use LAR as another leveraging tool. With substantial presence in LAR and considering the specificities of argon requiring large ASUs to produce, the Parties may gain the ability to indulge in exclusionary practices post the consummation of the Proposed Combination.

(e) Potential competition

104. The Parties have submitted that Inox AP has announced building of six new merchant-only ASUs expected to commence operations by 2018-19. It has also been submitted that there have been a number of other recent entries in the market such as Air Water, TNSK, SICGILSOL and several other local suppliers. In this regard, it may be noted that the competition concerns do not seem to be mitigated given the strong presence of the Parties in the tonnage segment which would require sustained and significant entry in merchant plants for bulk market and a change in competition landscape of the tonnage market.

(f) Buyer power from switching and multi-sourcing

105. It has been stated that the Parties' customers face low switching costs and are able to easily switch suppliers (or multi-source) due to the homogenous nature of the products. As a result, there is substantial price competition between suppliers not only in respect to new contracts but also with regard to renewals and share of supply, as customers often request additional quotations from third-party suppliers. The Parties have themselves stated that the customers have to incur switching costs in the form of replacement of the existing tank and vaporizing equipment and that the contracts for bulk supply are typically for a duration of three to five years as customers seek reliability and consistency in service. Considering that bulk supplies are made pursuant to contracts and a change in supplier would entail replacement of storage and other equipment, the customers would not only be reluctant to switch between the suppliers but would rather prefer to enter into a new contract with the same supplier even after



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expiry of the contract. The Parties have cited a few examples of switching and multi-sourcing but the same do not mitigate competition concerns. Switching and multi-sourcing are also effective only where there are other credible options for the customers. As discussed above, the Proposed Combination is leading to elimination of the two close and effective competitors which also implies adverse effect on switching and multi-sourcing options.

(g) Conclusion

106. Based on the aforesaid analysis, the Commission is of the opinion that the Proposed Combination is likely to cause AAEC in the market for LAR in India and the markets for LOX, LIN and LMO in East and South Regions in India.

4. Regional cylinder markets for GACT, GAR, GCO₂, GH₂, GAN, GOX, MOX and GN₂O

(a) Market structure

107. The Parties have submitted that in the cylinder market, apart from global industrial gas companies and re-fillers / resellers, there are various localised industrial gas companies which operate small gas plants, and compete directly with the Parties and that the entry barriers are low with low investment costs. As submitted, installing a small industrial gas plant costs as little as [...] and can be set up (along with a distribution network) in about 6 – 12 months and the companies owning such small industrial gas plants are self-sufficient and many of them rely primarily on their own plants for making cylinder supplies, thereby competing effectively with the larger gas companies.
108. In accordance with the aforesaid view of the cylinder markets, the Parties submitted their estimates of market shares for various gases on a regional basis. As was the case with bulk markets, a substantial part of the market (up to 100% in a few gases) was attributed to unidentified “other competitors”. Resultantly, the market shares of the Parties were submitted as negligible.



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109. The Commission observed that the players in cylinder markets can function as independent players by installing small gas plants or by sourcing liquids from bulk players and gasifying the same for sale in cylinders. The Commission observed that the market conditions to some extent mirror the conditions of bulk market. In the regions where the Parties have strong presence in bulk market, the presence in cylinder markets is also likely to be significant especially for GOX, GAN and GAR. This view is also based on the fact that the presence of other industrial gas players in cylinder market is also proportionate to their presence in bulk markets. Conversely, where the Parties do not have significant presence/overlaps in bulk markets, the Parties can be considered as being constrained by other competitors. Accordingly, the Commission is of the opinion that the Parties have significant presence in cylinder markets in East and South Regions and the Proposed Combination will lead to substantial change in market structure of various cylinder markets in South and East Regions.

(b) Conclusion

110. Based on the aforesaid analysis, the Commission is of the opinion that the Proposed Combination is likely to result in AAEC in various cylinder markets in the East and South Regions in India.

5. Markets for specialty gases

(a) Market structure

111. The Commission observed that the overlapping specialty gases markets in India are relatively small with the entire calibration and other mixtures segment being worth around [...], noble gases and noble gas mixtures being worth around [...] and pure gases segment being worth around [...].
112. The Commission observed that as was the case with bulk and cylinder markets for industrial gases, there is lack of visibility on all the players operating in specialty gases



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markets in India and the extent of their presence. However, unlike the bulk and cylinder markets, the Parties do not have a very significant presence in markets for various specialty gases as reflected in their actual sales revenue derived from each specialty gas. On an overall basis, as submitted, specialty gases account for [...] % and [...] % of Praxair's and Linde's respective total sales revenue in India. In 4 out of 20 overlapping specialty gases, viz., environmental mixtures, inert noble gas mixture, krypton and hydrogen chloride, one of the Parties has a sales revenue of less than [...]. In 12 out of 20 overlapping specialty gases, viz., ethane, hydrogen sulphide, methane, propane, sulphur hexafluoride, pure argon, pure CO₂, pure CO, pure hydrogen, pure nitrogen, pure oxygen and all refrigerants, one of the Parties has a sales revenue of less than [...]. Thus, in 16 out of 20 overlapping specialty gases, the Proposed Combination is likely to result in an insignificant overlap considering the actual sales revenue of the Parties and estimates of market size.

113. As regards the remaining 4 overlapping segments of other calibration mixtures, special application mixtures, ammonia and silane, the Commission noted the submissions of the Parties that while the markets for calibration mixtures and application mixtures involve local production and imports both, the markets for ammonia and silane are pure import markets. The Parties submitted that the market is characterized by presence of specialty gas resellers who directly import from abroad and sell to customers and that the global suppliers such as Solvay, BASF, Foshan *etc.* also supply directly to customers through their handling agents. The competitors of the Parties also confirmed presence of players such as Chemtron, Ultra Pure Gases, Chemix, Bhoruka, Vadilal apart from industrial gas players such as Inox AP and Air Liquide. The Commission also examined the sales revenue of a few competitors of the Parties and observed that the market indeed seems to be characterized by presence of effective competitors who would continue to impose competitive constraints on the Parties. The experts appointed by the Commission also corroborated the submissions of the Parties as regards the markets being fragmented and the Proposed Combination not being likely to change competition dynamics significantly.



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114. Thus, considering the aforesaid market structure, the Commission observed that the Proposed Combination is not likely to lead to a result in an incentive or ability to the Parties to act independently of competition in any of the specialty gases markets.

(b) Conclusion

115. Based on the small market size, insignificant increment resulting in most of the specialty gases, presence of other competitors, the Commission is of the opinion that the Proposed Combination is not likely to result in any significant change in competition dynamics in India and thus is not likely to cause an AAEC in any of the specialty gases markets.

6. Helium

(a) Market Structure

116. The Commission examined the helium market primarily in terms of access to sources of helium (worldwide) and specifically in Qatar (considering almost entire helium sold in India in retail is sourced from Qatar) and in terms of helium retail market in India.

Helium access position

117. The Commission observed that, at present helium sources capable of recovering helium at conditions that enable marketing liquid helium on a large scale are located in Algeria, Australia, Poland, Qatar, Russia, Canada and USA. The Parties have long term direct supply contracts with crude helium extractors/purifiers like [...]. It was observed that that helium capacity access is concentrated primarily in the hands of 4 industrial gas companies viz., Linde (15-20%), Praxair (15-20%), Air Products (20-25%) and Air Liquide (20-25%) which account for around (80-85%) of the worldwide capacity of helium. Post the Proposed Combination, the same capacity would be shared amongst three companies with the combined entity emerging as a clear market leader with significant market share of around 35-40%.



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118. In terms of access to sources of helium in Qatar, considering direct and secondary sourcing contracts, the Combined Entity is likely to have a market share of around 40-45% with Air Liquide, Iwatani, Air Products and MTG accounting for 40-45%, 5-10%, 5-10% and 0-5% respectively.
119. In this regard, the Parties submitted that they are in discussions with the [...], the EC and the [...] regarding finalization of divestments of helium sources and based on the 2017 data, [...], and the European divestiture buyer would acquire about [...] of global helium sourcing. Thus, as a minimum, given ongoing discussions with the [...], the Parties estimate that the merged entity would be left with around [...] % share of global helium sourcing in 2017, and this would further reduce to around [...] % in 2019, as compared to the current combined shares of 35-40%.
120. With regard to the Qatar source specifically, [...]. Such commitments will result in the Parties' combined share of sourcing from Qatar falling to around [...] % in 2018 and further decreasing to around [...] % in 2019, compared to a current 2018 combined share around 40-45%.
121. [...].
122. [...].
123. The Commission observed that the divestments offered by the Parties at this stage as a minimum address the concerns of the substantial changes in market structure in terms of helium worldwide and specifically in Qatar leading to an adverse effect on competition in the helium retail market in India and therefore subject to the finalization and implementation of aforesaid divestitures offered by the Parties and being discussed with the EC, [...], the Commission is of the opinion that the Proposed Combination is not likely to result in AAEC in terms of helium access

Helium Retail position



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124. The Commission observed that Indian retail helium market is characterized by presence of TNSI, SICGIL, Air Liquide and Inox AP apart from the Parties. The Combined Entity will have a market share of around 30-35% (with an increment of 15-20%) while the market would be led by TNSI with a market share in the range of 40-45%. Air Liquide, Inox AP and SICGIL are estimated to have market shares in the range of 10-15%, 5-10% and 0-5% respectively.
125. Apart from the market shares, the Commission examined the presence of the Parties and their competitors in India in terms of production capacities to assess the degree of competitive constraints they pose to the Parties. The Commission observed that all the aforesaid players in helium retail market have one helium plant in India with exception of TNSI who has set up two helium plants in India. Further, almost all the players appear to have direct/secondary access to sources of helium and the situation in terms of access is likely to improve further with the global divestitures especially the European divestiture.
126. Based on the aforesaid, the Commission is of the opinion that the Proposed Combination is not likely to change the market structure of helium retail market significantly.

(b) Conclusion

127. Considering the structure of helium retail market in India and likely structure of global helium sources access after the implementation of divestitures offered to the EC, [...], the Commission is of the opinion that the Proposed Combination is not likely to result in AAEC in the helium market.

VI. Competition Assessment – Provision of medical engineering services

128. The Commission observed that both Parties also provide certain related medical engineering services to hospitals and healthcare facilities (i.e. installation of systems for circulation and supply of gas). The Parties in this regard submitted that their



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revenues from provision of medical engineering services are insignificant with Linde's revenues being around [...] and Praxair's revenues being around [...] in 2016.

129. In terms of market shares, as per the Parties estimates, their combined supply share in this segment in 2016 was around 15-20% (with Linde having 10-15% and Praxair having 0-5%). Further, it was submitted that there are several larger competitors that are active in this area such as MDD Medical Systems (approx. 40-45% supply share), Draeger India Private Limited (approx. 10-15% supply share), Puspa Medical (approx. 5-10% supply share), MPS, Benson Medical, Alcon, Atlas Corp India among others.
130. The fact of the insignificant presence of the Parties in this segment has also been confirmed by their competitors who have submitted that the Proposed Combination is not likely to change competition dynamics of market for provision of medical engineering services significantly.
131. Thus, based on the information submitted by the Parties and responses given by the competitors of the Parties, the Commission is of the opinion that the Proposed Combination is not likely to result in an AAEC in the market for provision of medical engineering services in India.

VII. Modification to address AAEC concerns

(a) Markets in which the Proposed Combination is likely to lead to AAEC concerns

132. As detailed above, the analysis of the Commission revealed likelihood of AAEC concerns emanating from the Proposed Combination in the following markets:
- Market for T-GOX, T-GAN and T-GAR in India;
 - Market for bulk gases (excluding LAR and LCO₂) in East Region in India;
 - Market for bulk gases (excluding LAR and LCO₂) in South Region in India;
 - Market for LAR in India; and
 - Market for cylinder gases in East Region in India; and
 - Market for cylinder gases in South Region in India.



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(b) Relevant provisions of the Act

133. The Commission noted that in accordance with the provisions of the Act, it may either direct that the combination shall not take effect in accordance with Section 31(2) of the Act or may propose a modification to the combination in accordance with Section 31(3) of the Act. The modification proposed would need to be comprehensive and effective in order to eliminate the possibility of AAEC in India, while enabling the Parties to consummate the Proposed Combination.

(c) Objectives of modification required to eliminate the possibility of AAEC in India

134. The Commission was of the opinion that modifications should be such that they allow for establishment of independent competitor(s) in the relevant market(s) or strengthen the existing competitor(s) for each of the aforementioned relevant markets. The competitors must have an integrated presence in each of the relevant markets encompassing tonnage, bulk and cylinder businesses. In view of above, the modification aimed to maintain the existing level of competition in the relevant markets through:
- i. Creation of viable, effective, independent and long-term competitor(s) in the relevant market(s); and
 - ii. Ensuring that the buyer of the divestment assets has the necessary components, including transitional support arrangements, to compete effectively with the Combined Entity in the relevant market(s) in India.

(d) Determination of a suitable modification proposal that addresses AAEC concerns and achieves the aforesaid objectives

135. For determination of a suitable modification, it was most important to consider the important aspects of functioning of markets for industrial gases. In this regard, the



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Commission observed the following important aspects of industrial gases markets during the course of competition assessment.

- i. The tonnage, bulk and cylinder supplies of gases are inter-linked;
- ii. The gases to be supplied in bulk markets can be produced more efficiently in piggy back plants;
- iii. A good presence in tonnage market supports the operations in bulk market and vice versa and therefore a competitor with significant presence in bulk market can present better competitive constraints in bidding for tonnage contracts and a competitor with significant presence in tonnage gases can present better competitive constraints in bulk markets;
- iv. The modification should aim at ending existing structural links between the Parties and competitors considering the extent of concentration of markets; and
- v. Considering that tonnage contracts are long term, the Proposed Combination may not present much concerns for existing customers and therefore the objective is to create a significant competitor in tonnage markets for future contracts. However, considering that bulk market does not operate on very long duration contracts, the modification should address the changes in market structure in bulk markets on an immediate basis.

136. Based on the aforesaid observations, the Commission was of the opinion that:

- i. the competitor created pursuant to the modification should be an integrated player operating at all levels of industrial gases viz., tonnage, bulk and cylinder; and
- ii. the extent of divestiture required should be primarily determined with reference to extent of overlaps in bulk markets.

137. After noting the macro factors that apply to the industrial gases market, the Commission considered the extent of reduction in competition with the Proposed Combination and observed that the Proposed Combination is likely to reduce the most effective competitive constraints in the relevant market(s) and thus the modification should aim to eliminate the substantial overlap in terms of presence of the Parties.



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138. Considering the aforesaid specificities of industrial gases market, the Commission decided to propose divestiture of on-site plants in East and South Region engaged in production and supply of tonnage and bulk gases and cylinder filling stations engaged in production and supply of various cylinder gases.
139. Accordingly, the Commission decided that the Parties be required to divest the following businesses in the East Region and South Region respectively.
- i. Praxair's Tata 1 and Tata 2 and 3 on-site plants located in Jamshedpur and Praxair's cylinder filling stations located in Kolkata and Asansol; and
 - ii. Linde's stake in Belloxy, Linde's JSW -2 on-site plant located in Bellary and cylinder filling stations located in Chennai and Hyderabad.
140. Considering different approaches to determination of market shares and consequently different resulting market share estimates, the Commission considered the extent of overlaps in various markets envisaged to be eliminated in terms of actual sales revenue of the Parties. The same is tabulated as under.

Table 5: Impact assessment of proposed modification on tonnage markets

	Sales in INR MN		
	T-GOX	T-GAN	T-GAR
Linde	[...]	[...]	[...]
Praxair	[...]	[...]	[...]
Combined	[...]	[...]	[...]
Increment	[...]	[...]	[...]
Sales of Divestiture plants	[...]	[...]	[...]
Sales of Divestiture plants as percentage of overlap	[...]	[...]	[...]



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Table 6: Impact assessment of proposed modification on LIN, LOX and LMO markets – East Region

	Sales in INR MN		
	LOX	LIN	LMO
Linde	[...]	[...]	[...]
Praxair	[...]	[...]	[...]
Combined	[...]	[...]	[...]
Increment	[...]	[...]	[...]
Sales of Divestiture plants	[...]	[...]	[...]
Sales of Divestiture plants as percentage of overlap	[...]	[...]	[...]

Table 7: Impact assessment of proposed modification on LIN, LOX and LMO markets – South Region

	Sales in INR MN		
	LOX	LIN	LMO
Linde	[...]	[...]	[...]
Praxair	[...]	[...]	[...]
Combined	[...]	[...]	[...]
Increment	[...]	[...]	[...]
Sales of Divestiture plants	[...]	[...]	[...]
Sales of Divestiture plants as percentage of overlap	[...]	[...]	[...]

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Table 8: Impact assessment of proposed modification on LAR market in India

	Sales In INR MN
	LAR
Linde	[...]
Praxair	[...]
Combined	[...]
Increment	[...]
Sales of Divestiture plants	[...]
Sales of Divestiture plants as percentage of overlap	[...]

Table 9: Impact assessment of proposed modification on GOX, GAN and GAR markets – East Region

	Sales in INR MN		
	GOX Group	GAN Group	GAR Group
Linde	[...]	[...]	[...]
Praxair	[...]	[...]	[...]
Combined	[...]	[...]	[...]
Increment	[...]	[...]	[...]
Sales of Divestiture plants	[...]	[...]	[...]
Sales of Divestiture plants as percentage of overlap	[...]	[...]	[...]

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Table 10: Impact assessment of proposed modification on GOX, GAN and GAR markets – South Region

	Sales in INR MN		
	GOX	GAN	GAR
Linde	[...]	[...]	[...]
Praxair	[...]	[...]	[...]
Combined	[...]	[...]	[...]
Increment	[...]	[...]	[...]
Sales of Divestiture plants	[...]	[...]	[...]
Sales of Divestiture plants as percentage of overlap	[...]	[...]	[...]

141. Thus, the modification aimed to eliminate around [...] % of overlaps in LAR, considered to be a strategic product and [...] % of the overlaps in LOX, LIN and LMO in the South Region and [...] % to [...] % in bulk gases in East Region and [...] % to [...] % for tonnage gases and remedy the immediate likely adverse effects of the Proposed Combination. Besides, the acquirer of the aforesaid businesses is likely to have the required presence in terms of revenues which allows it to present requisite competitive constraints to the Combined Entity. Further, with divestment of Linde's stake in Belloxy, a structural link between Linde and Inox AP, a competitor of the Parties will be severed.
142. Based on the above, the Commission proposed modification to the combination, to the Parties, in terms of Section 31(3) of the Act, *vide* communication dated 16.08.2018 ("**Proposal for Modification**") so that such likely adverse effect on the competition in the relevant markets can be eliminated.



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143. The Parties submitted unconditional acceptance of the Proposal for Modification *vide* letter dated 22.08.2018. The Parties, however, made certain requests for consideration of the Commission *vide* letters dated 22.08.2018 and 24.08.2018. The Parties requested the Commission to consider increasing the duration of divestiture period for South Region Divestment Business and to relax certain purchaser requirements for existing on-site customer of South Region Divestment Business. The Commission accepts the request in respect of relaxing the purchaser requirements for South Region Divestment Business and as regards the request for increasing the duration of divestiture period, the Commission is of the opinion that the request is not justifiable and accordingly cannot be accepted.
144. Pursuant to the above, the Commission hereby approves the Proposed Combination under Section 31(7) of the Act, subject to the Parties carrying out the modification to the Proposed Combination, as provided in the following paras. These modifications address the finding of AAEC in various markets as summarised in para 132 above.

Modification to the Proposed Combination

145. The Parties shall comply with the modifications laid down in Section A, Section B, Section C and Section D below (“**Modification to the Proposed Combination**”).
146. All capitalised terms used in the Modification to the Proposed Combination shall have the meaning provided in **Appendix A** annexed herewith if the same are not defined in the body of the Modification to the Proposed Combination.

Section A: East Region Divestment Business

147. In order to maintain effective competition, the Parties shall divest or procure divestiture of the East Region Divestment Business as a going concern to one purchaser, by the end of the First Divestiture Period, in accordance with the Order.
148. The East Region Divestment Business comprises the business of producing, distributing and selling various industrial gases from (i) Praxair’s three on-site



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industrial gases plants located in Jamshedpur viz., Tata 1 and Tata 2 & 3; and (ii) Praxair's two cylinder filling stations located at Asansol and Kolkata.

149. The East Region Divestment Business shall include all assets and staff that will be required by the Approved Purchaser to continue Praxair's current industrial and medical gases operations, or are necessary to ensure the viability and competitiveness of all elements of the East Region Divestment Business. In particular, and as specified in more detail in Schedule I, the East Region Divestment Business includes, but is not limited to all:

- a) tangible and intangible assets (including intellectual property rights);
- b) R&D facilities;
- c) transferrable licences, permits and authorizations issued by any governmental organisation for the benefit of the elements of the East Region Divestment Business. The Parties will assist the Approved Purchaser in acquiring any non-transferable licences within a defined period of time;
- d) contracts, leases, commitments and customer orders of the elements of the East Region Divestment Business;
- e) Praxair's supplier and customer contracts;
- f) customer, credit and other records of the elements of the East Region Divestment Business; and
- g) personnel, including Key Personnel engaged on the East Region Divestment Business.

150. If there is any asset or personnel which is not covered above but which are both used (exclusively or not) in a part of East Region Divestment Business and are necessary for the continued viability and competitiveness of part of the East Region Divestment Business, that asset, personnel, or an adequate substitute will be offered to the Approved Purchaser.



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Transitional Support

151. In addition, the East Region Divestment Business shall include such transitional support as may be required by the Approved Purchaser, which is necessary to enable the Approved Purchaser to conduct the East Region Divestment Business in at least the same manner as Praxair operated at the time of execution of the BCA. The Parties will provide all such transitional support as required by the Approved Purchaser and deemed necessary by the Commission on the recommendation of the Monitoring Agency or the Divestiture Agency, as the case may be.

Purchasers Requirements

152. In order to be approved by the Commission as the Approved Purchaser of the East Region Divestment Business, any Proposed Purchaser must fulfil the following criteria:
- a) the Proposed Purchaser shall be independent of and with no connection whatsoever with the Parties and their Affiliates;
 - b) the Proposed Purchaser shall be an established industrial gas company with a proven capacity and track record in running a significant industrial gases business;
 - c) the Proposed Purchaser shall have the financial resources, proven expertise and incentive to maintain and develop the East Region Divestment Business as a viable and active competitive force in competition with the Parties and other competitors;
 - d) the acquisition of the East Region Divestment Business by the Proposed Purchaser must neither be likely to create, in light of the information available to the Commission, *prima facie* any competition concerns nor give rise to a risk that the implementation of the Order will be delayed. In particular, the Proposed Purchaser must reasonably be expected to obtain all necessary approvals from the relevant regulatory authorities for the acquisition of the East Region Divestment Business; and
 - e) the Proposed Purchaser shall not have any structural or financial links (whether directly or indirectly) with any existing competitor in the market.



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(The aforementioned criteria for the purchaser are hereafter referred to as the **“East Region Purchaser Requirements”**).

No acquisition of influence

153. The Parties shall, for a period of 10 years from the East Region Divestment Closing, not acquire any stake or any direct or indirect influence over the whole or part of the East Region Divestment Business.

Section B: South Region Divestment Business

154. In order to maintain effective competition, the Parties shall divest or procure divestiture of the South Region Divestment Business as a going concern to one purchaser, by the end of the First Divestiture Period, in accordance with the Order.
155. The South Region Divestment Business comprises the business of producing, distributing and selling various industrial gases from: (i) Linde’s JSW – 2 on-site industrial gas plant located in Bellary; and (ii) Linde’s cylinder filling stations located at Hyderabad and Chennai New Site.
156. The South Region Divestment Business shall include all assets and staff that will be required by the Approved Purchaser to continue Linde’s current industrial and medical gases operations, or are necessary to ensure the viability and competitiveness of all elements of the South Region Divestment Business. In particular, and as specified in more detail in Schedule II, the South Region Divestment Business includes, but is not limited to all:
- a) tangible and intangible assets (including intellectual property rights);
 - b) R&D facilities;
 - c) transferrable licences, permits and authorizations issued by any governmental organisation for the benefit of the elements of the South Region Divestment



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Business. The Parties will assist the Approved Purchaser in acquiring any non-transferable licences within a defined period of time;

- d) contracts, leases, commitments and customer orders of the elements of the South Region Divestment Business;
- e) Linde's supplier and customer contracts;
- f) customer, credit and other records of the elements of the South Region Divestment Business; and
- g) personnel, including Key Personnel engaged on the South Region Divestment Business.

157. If there is any asset or personnel which is not covered above but which are both used (exclusively or not) in a part of South Region Divestment Business and are necessary for the continued viability and competitiveness of part of the South Region Divestment Business, that asset, personnel, or an adequate substitute will be offered to the Approved Purchaser.

Transitional Support

158. In addition, the South Region Divestment Business shall include such transitional support as may be required by the Approved Purchaser, which is necessary to enable the Approved Purchaser to conduct the South Region Divestment Business in at least the same manner as Linde operated at the time of execution of the BCA. The Parties will provide all such transitional support as required by the Approved Purchaser and deemed necessary by the Commission on the recommendation of the Monitoring Agency or the Divestiture Agency, as the case may be.

Purchasers Requirements

159. In order to be approved by the Commission as the Approved Purchaser of the South Region Divestment Business, any Proposed Purchaser must fulfil the following criteria:



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- a) the Proposed Purchaser shall be independent of and with no connection whatsoever with the Parties and their Affiliates;
- b) the Proposed Purchaser shall be an established industrial gas company with a proven capacity and track record in running a significant industrial gases business;
- c) the Proposed Purchaser shall have the financial resources, proven expertise and incentive to maintain and develop the South Region Divestment Business as a viable and active competitive force in competition with the Parties and other competitors;
- d) the acquisition of the South Region Divestment Business by the Proposed Purchaser must neither be likely to create, in light of the information available to the Commission, *prima facie* any competition concerns nor give rise to a risk that the implementation of the Order will be delayed. In particular, the Proposed Purchaser must reasonably be expected to obtain all necessary approvals from the relevant regulatory authorities for the acquisition of the South Region Divestment Business; and
- e) the Proposed Purchaser shall not have any structural or financial links (whether directly or indirectly) with any existing competitor in the market.

(The aforementioned criteria for the purchaser are hereafter referred to as the “**South Region Purchaser Requirements**”).

However, if the Proposed Purchaser is an existing on-site tonnage customer or its Affiliate, then conditions (a) and (e) above shall not apply⁴.

No acquisition of influence

160. The Parties shall, for a period of 10 years from the South Region Divestment Closing, not acquire any stake or any direct or indirect influence over the whole or part of the South Region Divestment Business.

⁴ [...].



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Section C: Belloxy Divestment Business

161. In order to maintain effective competition, Linde shall divest or procure divestment of the Belloxy Divestment Business to one purchaser, by the end of the First Divestiture Period, in accordance with the Order.
162. The Belloxy Divestment Business comprises the business of producing, distributing and selling various industrial gases from Belloxy's JSW – 1 on-site industrial gas plant located in Bellary. The Divestiture shall be carried out by way of sale of Belloxy Divestment Assets to an Approved Purchaser.
163. The Belloxy Divestment Business shall include all assets and staff that will be required by the Approved Purchaser to continue Linde's current industrial and medical gases operations, or are necessary to ensure the viability and competitiveness of all elements of the Belloxy Divestment Business. In particular, and as specified in more detail in Schedule III, the Belloxy Divestment Business includes, but is not limited to all:
- a) tangible and intangible assets (including intellectual property rights);
 - b) R&D facilities;
 - c) transferrable licences, permits and authorizations issued by any governmental organisation for the benefit of the elements of the Belloxy Divestment Business. The Parties will assist the Approved Purchaser in acquiring any non-transferable licences within a defined period of time;
 - d) contracts, leases, commitments and customer orders of the elements of the Belloxy Divestment Business;
 - e) Linde's supplier and customer contracts;
 - f) customer, credit and other records of the elements of the Belloxy Divestment Business; and
 - g) personnel, including Key Personnel engaged on the Belloxy Divestment Business.
164. If there is any asset or personnel which is not covered above but which are both used (exclusively or not) in a part of Belloxy Divestment Business and are necessary for the



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continued viability and competitiveness of part of the Belloxy Divestment Business, that asset, personnel, or an adequate substitute will be offered to the Approved Purchaser.

Transitional Support

165. In addition, the Belloxy Divestment Business shall include such transitional support as may be required by the Approved Purchaser, which is necessary to enable the Approved Purchaser to conduct the Belloxy Divestment Business in at least the same manner as Linde operated at the time of execution of the BCA. The Parties will provide all such transitional support as required by the Approved Purchaser and deemed necessary by the Commission on the recommendation of the Monitoring Agency or the Divestiture Agency, as the case may be.

Purchaser Requirements

166. In order to be approved by the Commission as the Approved Purchaser of the Belloxy Divestment Business, the purchaser proposed by the Parties must fulfil the following criteria:
- a) the Proposed Purchaser shall be independent of and with no connection whatsoever with the Parties and their Affiliates;
 - b) the Proposed Purchaser shall be an established industrial gas company with a proven capacity and track record in running a significant industrial gases business;
 - c) the Proposed Purchaser shall have the financial resources, proven expertise and incentive to maintain and develop the Belloxy Divestment Business as a viable and active competitive force in competition with the Parties and other competitors;
 - d) the acquisition of the Belloxy Divestment Business by the Proposed Purchaser must neither be likely to create, in light of the information available to the Commission, *prima facie* any competition concerns nor give rise to a risk that the implementation of the Order will be delayed. In particular, the Proposed Purchaser must reasonably



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- be expected to obtain all necessary approvals from the relevant regulatory authorities for the acquisition of the Belloxy Divestment Business; and
- e) the Proposed Purchaser shall not have any structural or financial links (whether directly or indirectly) with any existing competitor in the market.

(The aforementioned criteria for the purchaser are hereafter referred to as the “**Belloxy Purchaser Requirements**”).

However, if the Proposed Purchaser is Inox AP, then conditions (a) and (e) above shall not apply⁵.

No acquisition of influence

167. The Parties shall, for a period of 10 years from the Belloxy Closing, not acquire any stake or the possibility of exercising an influence (by way of shareholding, change in the charter documents to by exercising affirmative rights or right to appoint a Director on the board of Belloxy or otherwise) over the whole or part of the Belloxy Divestment Business. Further, the Parties shall, for a period of 10 years from Effective Date, not enter into any new joint ventures with Inox AP in India without the Commission’s approval.

Section D: Other related conditions of Modification to the Proposed Combination

Divestiture during the First Divestiture Period

168. The Parties shall Divest or procure the Divestiture of the Divestment Businesses within the First Divestiture Period, absolutely and in good faith, to the Approved Purchaser(s), pursuant to and in accordance with the Approved Sale and Purchase Agreement(s).
169. The Divestiture(s) shall not be given effect to unless and until the Commission has approved (i) the terms of final and binding sale and purchase agreement(s) (including

⁵ [...]



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transitional support agreements, if any, to be entered into by the Parties and the Approved Purchaser); and (ii) the purchaser(s) proposed by the Parties i.e. the Proposed Purchaser(s).

170. Pursuant to execution of the Approved Sale and Purchase Agreement, the Parties shall ensure that the Closing takes place within the First Divestiture Period. The Parties may close the Proposed Combination at any time after issuance of the conditional approval by the Commission, including communication under regulation 28(5) of the Combination Regulations.
171. The Divestiture Businesses shall include the elements set out in paragraphs 148-151, 155-158 and 162-165 and more specifically defined in the Schedules annexed herewith.
172. The Parties are permitted to sell such other additional asset(s)/product(s) that the Parties and the Approved Purchaser(s) may agree in the context of the Divestiture.

Preservation of Economic Viability, Marketability and Competitiveness

173. From the Effective Date and until the Closing, the Parties shall take such steps as are necessary to preserve or procure the preservation of the economic viability, marketability and competitiveness of the Divestment Businesses, in accordance with good business practice and shall minimize the risk of loss of competitive potential of Divestment Businesses and shall prevent the destruction, removal, wasting, deterioration, sale, disposition, transfer (including creation of encumbrance) or impairment of the assets related to the Divestment Businesses, except as would occur in the ordinary course of business.
174. From the Effective Date and until the Closing, the Parties shall maintain or procure the maintenance of the operations of the Divestment Businesses at least as they are currently operated (including efforts to generate new business) consistent with the practices of the Divestment Businesses and the Parties' business, capital and strategic



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- plans, in place on the date of the BCA. The Parties shall use or procure the usage of best efforts to preserve the existing relationships with suppliers, vendors, customers, agencies, and other third parties having business related to the Divestment Businesses.
175. Further, the Parties shall perform or procure the performance of (i) all maintenance to, and replacements of, the assets of the Divestment Businesses in the ordinary course of business, in accordance with past practice, and Parties' business, capital, and strategic plans in place on the date of execution of the BCA; and (ii) carry on such capital projects, physical plant improvements, and business plans as are already under way or planned, including, but not limited to, existing or planned renovation and expansion projects, in accordance with Parties' business, capital, and strategic plans in place on the date of execution of the BCA.
176. From the Effective Date and until the Closing, the Parties shall make available, or procure to make available, sufficient resources for the development of the Divestment Businesses, on the basis and continuation of the existing business plans.
177. The Parties shall take all reasonable steps, or procure that all reasonable steps are being taken, including appropriate incentive schemes (based on industry practice), to encourage all Key Personnel, if there are any, to continue his or her position consistent with the past practices and/or as may be necessary to maintain the marketability, viability and competitiveness of the Divestment Businesses. Such incentives shall include a continuation of all employee benefits, including regularly scheduled raises, bonuses, and additional incentives as may be necessary to assure the continuation, and prevent any diminution, of the viability, marketability, and competitiveness of the Divestment Businesses.
178. The Parties shall remove or procure removal of any impediments that may deter Key Personnel, if there are any, from accepting employment with Approved Purchaser(s), as applicable, including, but not limited to any non-compete or confidentiality provision of the employment or other contracts with the Key Personnel that would



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affect the ability of the Key Personnel to be employed by the Approved Purchaser, as applicable.

179. In exceptional circumstances, if any member of Key Personnel terminates his or her employment with the Parties prior to the Closing, the Parties shall provide to the Monitoring Agency a reasoned proposal to replace such member of Key Personnel with the replacement who is well suited to carry out the functions of the said member of Key Personnel.

Hold Separate Obligations

180. The Parties shall, until the Closing, keep or procure the keeping of the Divestment Businesses separate from the businesses that the Parties will be retaining and to ensure that: (i) management and staff of the business retained by the Parties have no involvement in the Divestment Businesses; and (ii) the Key Personnel and Personnel of the Divestment Businesses have no involvement in any business retained by the Parties and do not report to any individual outside the Divestment Businesses.
181. Until the Closing, the Parties shall assist or procure assistance to the Monitoring Agency in ensuring that the Divestment Businesses are managed as a distinct and saleable entity separate from the business retained by the Parties. Within seven days of the Effective Date, the Parties shall appoint Hold Separate Manager(s) for the Divestment Businesses, who shall manage Divestment Businesses independently and in the best interest of the business with a view to ensure its continued economic viability, marketability and competitiveness and its independence from the businesses retained by the Parties. The Hold Separate Manager(s) shall closely cooperate with and report exclusively to the Monitoring Agency and, if applicable, the Divestiture Agency. Any replacement of the Hold Separate Manager(s) shall be subject to the approval of the Commission.
182. The Parties shall, until Belloxy Closing procure that they do not exercise their voting rights in respect of Belloxy Divestment Assets from the Effective Date.



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183. Within 30 days of the Effective Date, the Combined Entity will (a) nominate as designees to the Board of Directors of Belloxy, only independent directors that will not be employees of Linde, the Combined Entity, or any other industrial gas producer; (b) ensure that any current employees of Belloxy remain subject to the ring-fencing and firewall provisions below; and (c) no longer appoint or second any employees to serve Belloxy in executive management positions.
184. The purpose of the hold separate obligations is to (a) preserve the Divestment Businesses as a viable, competitive and on-going business, independent of the Parties until the Closing; (ii) assure that no Confidential Information is exchanged between the Parties and the Divestment Businesses, except as otherwise provided in the Order; (iii) prevent interim harm to competition in the relevant market(s) pending Divestiture; and (iv) ensure that there are no structural links between the Parties and Belloxy.

Ring-fencing

185. The Parties and their Affiliates shall implement or procure to implement, all necessary measures to ensure that the Parties do not, after the Effective Date, obtain any Confidential Information relating to the Divestment Businesses and that any such Confidential Information obtained by the Parties and/or their Affiliates before the Effective Date in respect of Divestment Businesses will be eliminated and not be used by them and/or their Affiliates. The Parties shall also ensure that the participation of the Divestment Businesses in the central information technology network will be discontinued to the extent possible, provided however, such discontinuation should not affect the viability and competitiveness of Divestment Businesses. The employees of the Parties who provide support to the Divestment Businesses shall retain and maintain Confidential Information as confidential and except as permitted under the Order, shall not provide, discuss, exchange, circulate, or otherwise furnish any such information to or with any person whose employment involves the business retained by the Parties. Such employees shall also execute agreement(s) prohibiting disclosure of Confidential Information.



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186. The Parties may obtain or keep information relating to the Divestment Businesses which is reasonably necessary for the Divestiture or the disclosure of which to the Parties is required by law or which is reasonably required by the Parties to comply with their financial reporting or other legal obligations (including in relation to tax filings).

Non-solicitation clause

187. The Parties shall not, and procure that their Affiliates do not employ, or make offers of employment to, any member of Key Personnel, transferred with the Divestment Businesses for a period of [...] after Closing (as applicable), unless the employment of such member of Key Personnel has been terminated by the Approved Purchaser(s).

Due diligence

188. In order to enable potential purchasers to carry out a reasonable due diligence of the Divestment Businesses, the Parties shall, subject to customary confidentiality assurances and dependent on the stage of the Divestiture process provide to potential purchaser(s) sufficient information (i) as regards the Divestment Businesses; and/or (ii) relating to the Key Personnel and Personnel, and allow them reasonable access to the Key Personnel and Personnel.

Reporting

189. The Parties shall submit written reports on the Divestiture process to the Monitoring Agency no later than seven days after the end of every month following the Effective Date (or otherwise at the Monitoring Agency's request), including details relating to potential purchasers of the Divestment Businesses along with developments in the negotiations with such potential purchasers, and on the status of Divestiture. The Parties shall submit a list of all potential purchasers which have expressed interest in acquiring the Divestment Businesses to the Monitoring Agency at each stage of the



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Divestiture process, as well as a copy of all offers made by such potential purchasers within five days of their receipt.

190. The Parties shall keep the Monitoring Agency informed about the Divestiture process, in particular, on preparation of the data room documentation and the due diligence procedure and shall submit copies of any information memorandum and/or similar documents to the Monitoring Agency.
191. The Parties shall provide the Commission with an undertaking in respect of compliance of conditions relating to non-acquisition of influence contained in paras 153, 160 and 167 of the Order. The undertaking shall be submitted on a yearly basis within ten days after the end of every year (commencing from each Closing).

Approval of Sale and Purchase Agreement and Purchaser

192. The final binding sale and purchase agreement (as well as ancillary agreements including transitional agreement(s)), relating to the Divestiture of the Divestment Businesses shall be conditional on the Commission's approval. The Parties must demonstrate to the Commission that each of the Proposed Purchaser, fulfils the Purchaser Requirements (East Region Purchaser Requirements or South Region Purchaser Requirements or Belloxy Purchaser Requirements, as the case may be) and that the Divestment Businesses are being divested in a manner consistent with the Order. The Commission shall endeavour to consider and provide prior approval for a proposed purchaser within [...] of the Parties' submission of any reasoned proposal under this paragraph.
193. The Commission may approve the Divestiture of the Divestment Businesses without one or more Assets, or by substituting one or more Assets or Personnel with one or more different assets or personnel, if this does not affect the viability and competitiveness of the Divestment Businesses after the Divestiture, taking account of the requirement of the Approved Purchaser(s).



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Monitoring Agency

194. The Commission shall, under Regulation 27 of the Combination Regulations, appoint an independent agency as Monitoring Agency for the purpose of, *inter alia*, supervision of the modifications provided in the Order, as far as they relate and impact business operations in India, and ensure that each of the Parties are in compliance with the Order.
195. The Monitoring Agency shall undertake such functions as may be directed by the Commission, which shall include, *inter alia*, the following functions:
1. propose in its first report to the Commission a detailed work plan describing how it intends to monitor compliance with the obligations and conditions attached to the Order;
 2. overseeing the on-going management of the Divestment Businesses with a view to ensuring its continued economic viability, marketability and competitiveness and monitoring compliance by the Parties with the modification to the Proposed Combination provided in the Order. To that end, the Monitoring Agency shall:
 - a. monitor the preservation of the economic viability, marketability and competitiveness of the Divestment Businesses, and the holding separate of the Divestment Businesses from the business retained by the Parties;
 - b. supervise the management of the Divestment Businesses as distinct and saleable entity;
 - c. with respect to Confidential Information:
 - determine all necessary measures to ensure that the Parties do not after the Effective Date obtain any Confidential Information relating to the Divestment Businesses;



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- in particular strive for the severing of the Divestment Businesses' participation in a central information technology network to the extent possible, without compromising the viability of the Divestment Businesses;
 - strive to ensure that any Confidential Information relating to the Divestment Businesses obtained by the Parties before the Effective Date is eliminated and will not be used by the Parties; and
 - decide whether such information may be disclosed to or kept by the Parties as the disclosure is reasonably necessary to allow the Parties to carry out the Divestiture or as the disclosure is required by law;
- d. monitor the splitting of assets and the allocation of Personnel between the Divestment Businesses and the Parties and/or their Affiliates;
- e. propose to Parties such measures as the Monitoring Agency considers necessary to ensure Parties' compliance with the Order, in particular the maintenance of the full economic viability, marketability or competitiveness of the Divestment Businesses, the holding separate of the Divestment Businesses and the non-disclosure of Confidential Information, including but not limited to commercially sensitive information;
- f. review and assess the replacement of the member of Key Personnel, if there are any, who has terminated his or her employment with the Parties and provide its recommendation regarding the suitability of such replacement to the Commission;
3. review and assess potential purchasers as well as the progress of the Divestiture process and verify that at each stage of the Divestiture process, potential purchasers receive sufficient information relating to the Divestment Businesses in particular by reviewing the relevant data room documentation, information



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memorandum and due diligence process and that the potential purchasers are granted reasonable access to the Personnel;

4. act as a contact point for any requests by Third Parties, in particular potential purchasers, in relation to the Order;
 5. submit to the Commission a written report within 10 days after the end of every month which shall cover (a) the operation and management of Divestment Businesses; and (b) the progress of the Divestiture process as well as potential purchaser(s). A non-confidential copy of the said report will be provided to the Parties;
 6. the Monitoring Agency shall report immediately in writing to the Commission of any failure on part of the Parties to comply with the Order;
 7. within one week after receipt of the documented proposal referred to in paragraph 192 above, submit to the Commission a written report containing its recommendations as regards (a) the suitability of the Proposed Purchaser(s); and (b) whether the Divestiture is being carried in accordance with the Order, in particular, if relevant, whether the sale of the Divestment Businesses without one or more Assets or not all of the Personnel affects the viability of the Divestment Businesses after the sale, taking account of the potential purchasers;
 8. assume the other functions assigned to the Monitoring Agency under the Monitoring Agency Agreement or by the Commission; and
196. A copy of the Monitoring Agency Agreement shall be provided to the Parties and the Parties shall use their best efforts to facilitate the Monitoring Agency in performance of its duties and obligations provided in the Monitoring Agency Agreement. Any failure by the Parties in such facilitation may be deemed to be a contravention of the Order.



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Divestiture Agency

197. If the Closing does not taken place as specified in paragraph 168 of the Modification to the Proposed Combination, the Commission shall appoint a Divestiture Agency to Divest the Divestment Businesses.
198. The appointment of the Divestiture Agency shall take effect from commencement of Second Divestiture Period or the day of its appointment, whichever is later.
199. Upon receipt of the notice of the Commission regarding the appointment of Divestiture Agency, the Parties must, within the period prescribed by the Commission, execute or procure their Affiliates to execute, a comprehensive power of attorney in favour of the Divestiture Agency to effect the sale of Divestment Businesses (including Closing) and all actions and declarations which the Divestiture Agency considers necessary or appropriate for achieving the sale of Divestment Businesses (including Closing), including the power to appoint advisors to assist with the sale process. The power of attorney shall include the authority to grant sub-powers. During the Second Divestiture Period, the Divestiture Agency shall have the sole authority to sell the Divestment Businesses at no minimum price. Upon request of the Divestiture Agency, the Parties shall cause the documents required for effecting the sale and the Closing to be executed.
200. The Divestiture shall not be effected by the Divestiture Agency unless and until the Commission has approved the terms of sale and purchase agreement (including any ancillary agreement) and the purchaser proposed by the Divestiture Agency.
201. If the Monitoring Agency and the Divestiture Agency are not the same legal or natural persons, the Monitoring Agency and the Divestiture Agency shall cooperate with each other during the Second Divestiture Period in order to facilitate each other's tasks.
202. A copy of the Divestiture Agency Agreement shall be provided to the Parties and the Parties shall use their best efforts to facilitate the Divestiture Agency in performance



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of its duties and obligations provided in the Divestiture Agency Agreement. Any failure by the Parties in such facilitation may be deemed to be a contravention of the Order.

Sale of Divestment Businesses within Second Divestiture Period

203. Within the Second Divestiture Period, the Divestiture Agency shall divest at no minimum price the Divestment Businesses to Approved Purchaser(s).
204. The Divestiture Agency shall have the discretion as to the manner in which it sells the Divestment Businesses. The Divestiture Agency shall include in the sale and purchase agreement, or other disposal arrangement, (as well as in any ancillary agreements) (a) such terms and conditions as it considers appropriate for an expedient sale of the Divestment Businesses in the Second Divestiture Period; and (b) such customary representations and warranties and indemnities as are reasonably required to effect the sale. The Divestiture Agency shall protect the legitimate financial interests of the Parties, subject to the Parties' unconditional obligation to divest the Divestment Businesses at no minimum price in the Second Divestiture Period.
205. During the Second Divestiture Period, the Divestiture Agency shall provide the Commission with a comprehensive monthly (or otherwise at the Commission's request) report on the progress of the Divestiture process. The monthly reports shall be submitted within ten days after the end of every month with a simultaneous copy to the Monitoring Agency and a non-confidential copy to the Parties.
206. The Commission may, where appropriate, in response to a request from the Parties showing good cause and accompanied by a report from Monitoring Agency, grant extension of the time periods foreseen in the Modification to the Proposed Combination.



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Duties and obligations of the Parties

207. The Parties shall provide and shall cause their advisors to provide the Monitoring Agency and Divestiture Agency with such co-operation, assistance and information, as the Monitoring Agency and/or Divestiture Agency may reasonably require to perform its tasks. The Monitoring Agency and Divestiture Agency shall have full and complete access to any of the Divestment Businesses' books, records, documents, management or other personnel, facilities, sites and technical information necessary for fulfilling its duties under the Order and the Parties and the Hold Separate Managers shall provide the Monitoring Agency and Divestiture Agency upon request with copies of any document required by the Monitoring Agency or the Divestiture Agency, as the case may be. The Parties shall make available to the Monitoring Agency and Divestiture Agency one or more offices on their premises and shall be available for meetings in order to provide the Monitoring Agency and the Divestiture Agency with all necessary information for the performance of their tasks.
208. The Parties shall provide the Monitoring Agency with the managerial and administrative support that it may reasonably request in relation to the management of the Divestment Businesses. This shall include administrative support functions relating to the Divestment Businesses which are currently carried out at headquarters level. The Parties shall provide and shall cause its advisors to provide the Monitoring Agency, on request, with the information submitted to potential purchasers, in particular give the Monitoring Agency access to the data room documentation and all other information granted to potential purchasers in the due diligence procedure. The Parties shall inform the Monitoring Agency on potential purchasers, submit lists of all potential purchasers at each stage of the selection process, including the offers made by potential purchasers at those stages, and keep the Monitoring Agency informed of all developments in the Divestiture process.
209. The Parties shall indemnify the Monitoring Agency, its employees and agents and Divestiture Agency and its employees and agents (each an "**Indemnified Party**") and hold each Indemnified Party harmless against any liabilities arising directly out of the



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performance of the Monitoring Agency's or Divestiture Agency's duties under the Order, except to the extent that such liabilities result from the wilful default, recklessness, gross negligence or bad faith of the Indemnified Party.

210. The Commission may share confidential information proprietary to the Parties and the Divestment Businesses with the Monitoring Agency and Divestiture Agency, without seeking any approval from the Parties.
211. Prior to the Closing Date, the Parties shall secure all consents and waivers from all Third Parties that are required by the Approved Purchaser in relation to the Divestment Businesses as of the Closing Date. Provided, however, that the Parties may satisfy this requirement by certifying that the Approved Purchaser has, to the Approved Purchaser's satisfaction, either (i) executed such agreements directly with each of the relevant Third Parties, or (ii) secured a similar contract with similar terms from the customers or from supplier(s) supplying such product or service.
212. The Commission may at any time request information from the Parties that is reasonably necessary for the effective implementation of the Order.
213. The Parties shall notify the Commission at least thirty days prior to any proposed change in the corporate structure of the Parties that may adversely affect the compliance obligations of the Parties.
214. All appendices and Schedules annexed to the Order shall form an integral part of the Order.
215. In carrying out the aforesaid modification, the Parties shall comply with the provisions of the Act, the Combination Regulations and the Competition Commission of India (General Regulations), 2009.
216. In case the Parties fail to comply with the modifications, as provided above, the Proposed Combination would be deemed to have caused appreciable adverse effect on



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competition in India and the concerned parties shall render themselves liable for being proceeded under the relevant provisions of the Act.

217. The Order shall stand revoked, if any time, the information provided by the Parties is found to be incorrect.
218. The information provided by the Parties is confidential at this stage in terms of and subject to provisions of Section 57 of the Act.
219. The Secretary is directed to communicate to the Parties accordingly.



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Appendix A

Terms used in the Modification to the Proposed Combination

<i>Affiliates</i>	Enterprises controlled by the Parties and/or by the ultimate parents of the Parties, including the ultimate parents, whereby the term “Enterprises” and “Control” shall bear the meaning provided in the Act.
<i>Approved Purchaser(s)</i>	The entity(ies) approved by the Commission as acquirer(s) of the Divestment Businesses (or remaining Divestment Businesses) in accordance with the criteria set out in paragraphs 152, 159 and 166 (as the case may be).
<i>Approved Sale and Purchase Agreement(s)</i>	The sale and purchase agreement(s) for sale of Divestment Businesses which has been duly approved by the Commission.
<i>Belloxy Closing</i>	The transfer of legal title of Belloxy Divestment Assets to the Approved Purchaser.
<i>Belloxy Divestment Assets</i>	Linde India’s entire shareholding in Belloxy along with any rights held therein. Linde India holds equity shares constituting 50 percent shareholding in Belloxy
<i>Closing</i>	The transfer of the legal title of the Divestment Businesses to the Approved Purchaser(s)
<i>Closing Date</i>	The date on which Closing takes place.
<i>Combined Entity</i>	The resultant entity, post the consummation of the Proposed Combination of Linde and Praxair.
<i>Confidential Information</i>	Any business secrets, know-how, commercial information, or any other Information of a proprietary nature relating to the Divestment Businesses that is not available in public domain.



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<i>Divestment Businesses</i>	The East Region Divestment Business, South Region Divestment Business and the Belloxy Divestment Business
<i>Divestiture</i>	Shall mean the sale and transfer of the Divestment Businesses. The words, “divest”, “divested”, “divesting” and “divestment” shall be interpreted accordingly.
<i>Divestiture Agency</i>	One or more natural or legal person(s), independent from the Parties, which is appointed by the Commission, and which has the duty to Divest the Divestment Business during the Second Divestiture Period.
<i>Divestiture Agency Agreement</i>	The agreement executed by and between the Commission and the Divestiture Agency.
<i>East Region Divestment Closing</i>	The transfer to the Approved Purchaser of all legal entities, assets and employees and the entering into licensing and other agreements that are part of the East Region Divestment Business.
<i>Effective Date</i>	The date of receipt of the Order by the Parties.
<i>First Divestiture Period</i>	The period of [...] from the Effective Date. However, for Belloxy Divestment Business, the First Divestiture Period shall mean the period of [...] from the Effective Date.
<i>Hold Separate Manager</i>	means an individual with experience in the management, sales, marketing, or financial operations of the Divestment Businesses, who is appointed by the Parties to manage the Divestment Businesses till the East Region Divestment Closing, South Region Divestment Closing and Belloxy Closing (as applicable).
<i>Key Personnel</i>	employees who are necessary to maintain the viability and competitiveness of the Divestment Businesses
<i>Monitoring Agency</i>	One or more natural or legal person(s), independent from the Parties, who is appointed by the Commission, and who



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	has the duty to monitor the Parties' compliance with the modifications provided in the Order. The Monitoring Agency may be appointed as the Divestiture Agency by the Commission.
<i>Monitoring Agency Agreement</i>	The agreement executed by and between the Commission and the Monitoring Agency.
<i>Order</i>	Final order of the Commission approving the proposed combination under the relevant provisions of Section 31 of the Act.
<i>Personnel</i>	All staff currently employed in the Divestment Businesses, including but not limited to staff seconded to the Divestment Businesses and shared employees
<i>Proposed Purchaser</i>	Entity(ies) proposed by the Parties or the Divestment Agency to the Commission as purchaser of the Divestment Businesses, prior to their approval by the Commission
<i>Second Divestiture Period</i>	The period of [...] from the end of the First Divestiture Period.
<i>South Region Divestment Closing</i>	The transfer to the Approved Purchaser of all legal entities, assets and employees and the entering into licensing and other agreements that are part of the South Region Divestment Business.



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Schedule I

1. Pursuant to paragraphs 148-151 of the Modification to the Proposed Combination, the East Region Divestment Business includes but is not limited to:
 - (a) the following main tangible assets:
 - i. Three on-site plants in the East Region, namely:
 - **TATA 1:** Jamshedpur – Praxair India Private Limited, L-town gate, adjacent to Garam Nala, Sakchi, Jamshedpur 831001 India. [...];
 - **TATA 2 & 3:** Jamshedpur – Praxair India Private Limited, Besides Vishwakarma Technical Institute, adjacent to Garam Nala, Sakchi, Jamshedpur 831001 India. [...].
 - ii. All tangible assets owned by Praxair at the above three plants, including but not limited to all production, filling and trans-filling facilities, machinery, equipment and fixed assets, tankers, containers, storage tanks, distribution equipment, raw materials, stocks, work in progress, and semi-finished and finished goods, employees, and administrative facilities. Details of the assets required to be divested are set out below:

ASSETS	QUANTITY		
	TATA 1	TATA 2	TATA3
ASFH (Air Suction Filter House)	[...]	[...]	[...]
MAC (Main Air Compressor)/ BAC (Booster Air Compressor) Combined machine	[...]	[...]	[...]

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ASSETS	QUANTITY		
	TATA 1	TATA 2	TATA3
Product compressors for Nitrogen	[...]	[...]	
Product compressors for Oxygen	[...]	[...]	
Cooling Tower	[...]	[...]	
Cooling Tower Pumps	[...]	[...]	
Pre-purifier Beds	[...]	[...]	[...]
Heat exchangers for compressors	[...]	[...]	
Cold Box	[...]	[...]	[...]
Cryogenic Turbine Boosters	[...]	[...]	[...]
Regeneration Heater	[...]	[...]	[...]
Cryogenic pumps	[...]	[...]	
Cryogenic vaporisers	[...]	[...]	[...]
Cryogenic storage tanks onsite	[...]	[...]	
Weigh bridge for truck filling	[...]	[...]	
Chillers	[...]	[...]	[...]
Piping for different services	[...]	[...]	[...]
Valves including control and manual valves	[...]	[...]	[...]
Metering stations	[...]	[...]	
Pipe racks and supporting structure	[...]	[...]	[...]



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ASSETS	QUANTITY		
	TATA 1	TATA 2	TATA3
Control Room	[...]		
Tanks at customer premises	[...]		
Tankers*	[...]		

* In case of contracted vehicles, the contracts will be assigned to the Approved Purchaser

iii. Two cylinder filling stations in the East Region, being:

- **Praxair's Asansol cylinder filling station** - Praxair India Private Limited, Off GT Road, Asansol, West Bengal 713370 India
- **Praxair's Kolkata cylinder filling station** - Praxair India Private Limited, Parbangla, Via Batanagar, Dist. South – 24 – Paraganas, , West Bengal Pin – 743313 India

iv. All tangible assets owned by Praxair at the above two cylinder filling stations, including but not limited to equipment and fixed assets, tankers, containers, storage tanks, distribution equipment, raw materials, stocks, work in progress, and semi-finished and finished goods, employees, and administrative facilities. Details of the assets required to be divested are set out below.

ASSETS	QUANTITY	
	Asansol	Kolkata
Vacuum insulated storage tank	[...]	[...]
Cryogenic reciprocating pump	[...]	[...]
Vaporizer	[...]	[...]
Vacuum Pump	[...]	[...]
Settle Pressure Manifold	[...]	[...]
Nitrogen purging manifold	[...]	[...]



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ASSETS	QUANTITY	
	Asansol	Kolkata
CO ₂ discharge manifold	[...]	[...]
Cylinders	[...]	[...]
Cylinder filling weigh scale	[...]	[...]
Portable Liquid Cylinders (PLC)	[...]	[...]
MCC Panel	[...]	[...]
Cylinder filling Pump Panels	[...]	[...]
Diesel Generator set	[...]	[...]
Administration building	[...]	[...]
Driver rest room	[...]	[...]
Cylinder filling and storage shed	[...]	[...]
Security Room	[...]	[...]
Valves including control and manual valves	[...]	[...]
Metering stations	[...]	[...]
Pipe racks and supporting structure	[...]	[...]
Tanks	[...]	[...]
Trucks / Vehicles	[...]	[...]

* These are under lease and the leasehold rights would be transferred to the Approved Purchaser

** In case of contracted vehicles, the contracts will be assigned to the Approved Purchaser

(b) Intangible Assets (including intellectual property rights):

All product specifications, operating manuals, instructions and recipes, product information sheets, price lists and presentations, and other marketing materials, related to the East Region Divestment Business, to the extent available, will be provided by Praxair to the Approved Purchaser. All intellectual property rights (by way of



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assignment, non-assertion or non-exclusive, perpetual, irrevocable, royalty-free license) owned by Praxair, which are used in conducting the East Region Divestment Business will be provided by Praxair to the Approved Purchaser. Approved Purchaser, to the extent required, will be permitted use of any trademarks which are currently used by Praxair in connection with the East Region Divestment Business for a period of up to [...] on a royalty free basis, for completion of the rebranding by the Approved Purchaser.

(c) Licenses, Permits and Authorisations:

All statutory licences, permits and authorisations owned / held by Praxair for the operation of the East Region Divestment Business, including, *inter alia* a number of manufacturing and marketing authorisations, will be owned/ held by the Approved Purchaser.

(d) Contracts, Agreements, Leases, Commitments and Understandings:

All contracts, agreements, leases, commitments and understandings entered into by Praxair (to the extent this is not hindered by change of control clauses and the subsequent termination of any such agreements) related to the East Region Divestment Business will be transferred / assigned by Praxair to the Approved Purchaser, to the extent required by the Approved Purchaser for the operations of the East Region Divestment Business. This includes in particular customer contracts and supply contracts with third-party suppliers for the East Region Divestment Business. Praxair will ensure that where the consent of third parties is required, the relevant consent is obtained.

(e) Customer, Credit and other Records:

All records relating to the customers, credit and other business activities of the East



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Region Divestment Business will be provided to the Approved Purchaser, to the extent necessary.

(f) **Personnel:**

All Personnel that is employed by Praxair at the East Region Divestment Business. The number of personnel currently employed at each plant / cylinder filling station is as follows:

- **TATA 1 and TATA 2&3:** The 3 plants are operated and maintained by [...] employees and [...] contract workmen. Apart from these, there are services contracted for security and housekeeping.
- **Praxair's Asansol cylinder filling station:** The plant is operated and maintained by a team of [...] employees and [...] contract workmen. Apart from these, there are services contracted for security and housekeeping.
- **Praxair's Kolkata cylinder filling station:** The plant is operated and maintained by a team of [...] employees and [...] contract workmen. Apart from these, there are services contracted for security and housekeeping.

(g) **Key Personnel:**

All Key Personnel of Praxair employed at the East Region Divestment Business.

- **TATA 1 and TATA 2&3** - The key personnel common for above 3 plants are as below:
 - [...]
 - [...]
 - [...]
 - [...]



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- [...]

[...] are included in the [...] employees shown in section 1(f) above.

- **Praxair's Asansol cylinder filling station** - The Key personnel employed by Praxair are as below:
[...]

These are included in the 1 (f) above.

- Praxair's Kolkata cylinder filling station – The Key personnel employed by Praxair are as below:
[...]

These are included in the 1 (f) above.

(h) Transitional Support:

- i. At the option of the Approved Purchaser, Praxair shall enter into a transitional support agreement as may be required by the Approved Purchaser to conduct the East Region Divestment Business in at least the same manner as Praxair operated at the time of execution of the BCA. The Parties will provide all such transitional support as required by the Approved Purchaser and deemed necessary by the Commission on the recommendation of the Monitoring Agency or the Divestiture Agency, as the case may be; and
- ii. An agreement with the Approved Purchaser of East Region Divestment Business for the supply of any process plant component and/or spare part for the process plants included in the East Region Divestment Business, which cannot be bought and sourced elsewhere for a period:
 - [...] tonnage on-site plant customer contracts, in relation to the process plants used to supply tonnage/small on-site plant customers; or
 - at least of [...], unless it is proven to the satisfaction of the Monitoring



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Agency that a shorter period would be sufficient, in relation to all other process plants.

2. The Praxair Divestment Business shall not include:
 - Books and records required to be retained pursuant to any statute, rule, regulation or ordinance, provided that the Approved Purchaser shall be entitled to obtain a copy of the same and shall be permitted access to the original of such books and records upon reasonable request during normal business hours;
 - Monies owed to Praxair by customers for the purchase of products pertaining to the East Region Divestment Business, and monies owed by Praxair to vendors;
 - Any cylinder business other than the Asansol and Kolkata cylinder filling stations;
 - Any intellectual property which does not contribute to the current operations of the East Region Divestment Business; and
 - Any Brand Names
3. In the event that materials to be transferred contain information that is confidential to Parties' retained businesses and not relevant for the East Region Divestment Business, this information shall be redacted as appropriate.
4. If there is any asset or personnel which is not covered above but which are both used (exclusively or not) in a part of East Region Divestment Business and are necessary for the continued viability and competitiveness of part of the East Region Divestment Business, that asset, personnel, or an adequate substitute will be offered to the Approved Purchaser.



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Schedule II

1. Pursuant to paragraphs 155-158 of the Modification to the Proposed Combination, the South Region Divestment Business includes but is not limited to:
 - (a) **the following main tangible assets:**
 - i. JSW-2 is an integrated plant (complete with ASUs and liquefaction facilities), for JSW Steel in Bellary, Karnataka. [...].
 - ii. All tangible assets owned by Linde at the above plant, including but not limited to all production, filling and trans-filling facilities, machinery, equipment and fixed assets, tankers, containers, storage tanks, distribution equipment, raw materials, stocks, work in progress, and semi-finished and finished goods, employees, and administrative facilities. Details of the assets required to be divested are set out below:

ASSETS	JSW -2
ASFH (Air Suction Filter House)	[...]
MAC (Main Air Compressor)	[...]
Nitrogen Recycle Compressor	[...]
Cooling Tower	[...]
Cooling Tower Pumps	[...]
Pre-purifier Beds	[...]
Heat exchangers for compressors	[...]
Cold Box	[...]
Cryogenic Turbine Boosters	[...]
Regeneration Heater (Corex)	[...]
Cryogenic pumps (filling)	[...]
Cryogenic vaporisers	[...]

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ASSETS	JSW -2
Buffer Vessels	[...]
Cryogenic storage tanks onsite	[...]
Piping for different services	[...]
Valves including control and manual valves	[...]
Metering stations	[...]
Pipe racks and supporting structure	[...]
Control Room	[...]
Tanks at customer premises	[...]
Tankers *	[...]

* In case of contracted vehicles, the contracts will be assigned to the Approved Purchaser

iii. Two cylinder filling stations in the South Region, being:

- **Linde's Hyderabad cylinder filling station** - Linde India Limited, Packaged Gases and Products Plant, Plot No. 178 & 179, IDA Pashamylaram, Phase III, Dist. Medak 502 307.
- **Linde's Chennai cylinder filling station** - Linde India Limited, Plot No. G-21, SIPCOT Industrial Park, Irungattukottai, Sriperumbudur, Dist. Kancheepuram 602 105.

iv. All tangible assets owned by Linde at the above two cylinder filling stations, including but not limited to equipment and fixed assets, tankers, containers, storage tanks, distribution equipment, raw materials, stocks, work in progress, and semi-finished and finished goods, employees, and administrative facilities. Details of the assets required to be divested are set out below.



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ASSETS	Hyderabad	Chennai
Filling Shed, storage area	[...]	[...]
Administrative / Office Bldg with car park	[...]	[...]
VIST	[...]	[...]
Vaporisers	[...]	[...]
Filling manifold	[...]	[...]
Analysers	[...]	[...]
Corblin Compressor	[...]	[...]
LIV filling system	[...]	[...]
Elgi Air Compressor	[...]	[...]
33KV substation	[...]	[...]
125 KVA DG Set	[...]	[...]
IP Lab	[...]	[...]
Loading / Unloading Deck	[...]	[...]
Forklift	[...]	[...]
Test Shop	[...]	[...]
Drivers' Rest Room	[...]	[...]
Security Room / Cabin	[...]	[...]
DVR units	[...]	[...]



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ASSETS	Hyderabad	Chennai
EPABX, intercom	[...]	[...]
UPS	[...]	[...]
LCD Projector	[...]	[...]
Tanks for de-bulking	[...]	[...]
Truck Mounted Crane	[...]	[...]
Tail Lift	[...]	[...]
Trucks / Vehicles	[...]	[...]
VITTs	[...]	[...]
Cylinders	[...]	[...]

(b) Intangible Assets (including intellectual property rights):

All product specifications, operating manuals, instructions and recipes, product information sheets, price lists and presentations, and other marketing materials, related to the South Region Divestment Business, to the extent available, will be provided by Linde to the Approved Purchaser. All intellectual property rights (by way of assignment, non-assertion or non-exclusive, perpetual, irrevocable, royalty-free license) owned by Linde, which are used in conducting the South Region Divestment Business will be provided by Linde to the Approved Purchaser. The Approved Purchaser, to the extent required, will be permitted use of any trademarks which are currently used by Linde in connection with the South Region Divestment Business for a period of up to [...] on a royalty-free basis, for completion of rebranding by the Approved Purchaser.



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(c) Licenses, Permits and Authorisations:

All statutory licences, permits and authorisations owned/held by Linde for the operation of the South Region Divestment Business, including, *inter alia*, a number of manufacturing and marketing authorisations, will be owned/held by the Approved Purchaser.

(d) Contracts, Agreements, Leases, Commitments and Understandings:

All contracts, agreements, leases, commitments and understandings entered into by Linde (to the extent this is not hindered by change of control clauses and the subsequent termination of any such agreements) related to the South Region Divestment Business will be transferred/assigned by Linde to the Approved Purchaser, to the extent required by the Approved Purchaser for the operations of the South Region Divestment Business. This includes in particular customer contracts and supply contracts with third-party suppliers for the South Region Divestment Business. Linde will ensure that where the consent of third parties is required, the relevant consent is obtained.

(e) Customer, Credit and other Records:

All records relating to the customers, credit and other business activities of the South Region Divestment Business will be provided to the Approved Purchaser, to the extent necessary.

(f) Personnel:

These include all Personnel who are employed by Linde at the South Region Divestment Business. The number of personnel currently employed at JSW-2 / the cylinder filling stations are as follows:

- **JSW-2:** The plant is operated and maintained by a team of [...] employees and



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[...] contract workmen. Apart from these, there are services contracted for security and housekeeping.

- **Linde's Hyderabad cylinder filling station:** The plant is operated and maintained by a team of [...] employees and [...] contract workmen. Apart from these, there are services contracted for security and housekeeping.
- **Linde's Chennai cylinder filling station:** The plant is operated and maintained by a team of [...] employees and [...] contract workmen. Apart from these, there are services contracted for security and housekeeping.

(g) Key Personnel:

All Key Personnel of Linde employed at the South Region Divestment Business are as follows:

- **JSW-2:** The key personnel employed by Linde are as below:

[...] [...]

[...] [...]

[...] [...]

[...] [...]

[...] [...]

[...] [...]

[...] are included in the [...] employees shown in section 1(f) above.

- **Linde's Hyderabad cylinder filling station:** The Key personnel employed by Linde are as below:

[...] [...]



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[...] [...]

[...] [...]

[...] [...]

[...] [...]

[...] [...]

[...] [...]

[...] [...]

These [...] personnel are included in the [...] employees shown in section 1(f) above.

- **Linde's Chennai cylinder filling station:** The Key personnel employed by Linde are as below:

[...] [...]

[...] [...]

[...] [...]

[...] [...]

[...] [...]

[...] are included in the [...] employees shown in section 1(f) above.

(h) Transitional Support:

- i. At the option of the Approved Purchaser, Linde shall enter into a transitional support agreement as may be required by the Approved Purchaser to conduct the



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South Region Divestment Business in at least the same manner as Linde operated at the time of execution of the BCA. The Parties will provide all such transitional support as required by the Approved Purchaser and deemed necessary by the Commission on the recommendation of the Monitoring Agency or the Divestiture Agency, as the case may be; and

- ii. An agreement with the Approved Purchaser of the South Region Divestment Business for the supply of any process plant component and/or spare part for the process plant included in the South Region Divestment Business, which cannot be bought and sourced elsewhere for a period:

- [...] tonnage on-site plant customer contracts, in relation to the process plant used to supply tonnage/small on-site plant customers; or
- at least of [...], unless it is proven to the satisfaction of the Monitoring Agency that a shorter period would be sufficient, in relation to all other process plants.

2. The South Region Divestment Business shall not include:

- Books and records required to be retained pursuant to any statute, rule, regulation or ordinance, provided that the Approved Purchaser shall be entitled to obtain a copy of the same and shall be permitted access to the original of such books and records upon reasonable request during normal business hours;
- Monies owed to Linde by customers for the purchase of products pertaining to the South Region Divestment Business, and monies owed by Linde to vendors;
- Any cylinder business other than the Hyderabad and Chennai cylinder filling stations;
- Any intellectual property which does not contribute to the current operations of the South Region Divestment Business; and
- Any Brand Names.



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3. In the event that materials to be transferred contain information that is confidential to Parties' retained businesses and not relevant for the South Region Divestment Business, this information shall be redacted as appropriate.
4. If there is any asset or personnel which is not covered above but which are both used (exclusively or not) in a part of South Region Divestment Business and are necessary for the continued viability and competitiveness of part of the South Region Divestment Business, that asset, personnel, or an adequate substitute will be offered to the Approved Purchaser.



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Schedule III

1. [...]. Linde India and Inox AP each hold 50% of the share capital of Belloxy. [...].
2. Linde will divest Linde India's shareholding of 50% of the equity share capital of Belloxy, and therefore, in effect, Linde's interest in Belloxy plant (*i.e.*) JSW-1.
3. Pursuant to paragraphs 162-165 of the Modification to the Proposed Combination, the Belloxy Divestment Business includes but is not limited to:

(a) the following main tangible assets:

- i. JSW-1 is an integrated plant (complete with ASUs and liquefaction facilities), for JSW Steel. [...].
- ii. All tangible assets owned by Linde (through Belloxy) at JSW-1, including but not limited to all production, filling and trans-filling facilities, machinery, equipment and fixed assets, tankers, containers, storage tanks, distribution equipment, raw materials, stocks, work in progress, and semi-finished and finished goods, employees, and administrative facilities. Details of the assets being divested are set out below:

ASSETS	Belloxy JV
ASFH (Air Suction Filter House)	[...]
MAC (Main Air Compressor	[...]
BAC (Booster Air Compressor)	[...]
Product compressors for Oxygen	[...]
Cooling Tower	[...]
Cooling Tower Pumps	[...]

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ASSETS	Belloxy JV
Pre-purifier Beds	[...]
Heat exchangers for compressors	[...]
Cold Box	[...]
Cryogenic Turbine Boosters	[...]
Regeneration Heater (Corex)	[...]
Cryogenic pumps (filling)	[...]
Cryogenic vaporisers	[...]
Cryogenic storage tanks onsite	[...]
Weigh bridge for truck filling	[...]
Chillers	[...]
Piping for different services	[...]
Valves including control and manual valves	[...]
Metering stations	[...]
Pipe racks and supporting structure	[...]
Control Room	[...]
Tanks at customer premises	[...]
Tankers *	[...]

* The agreements with contracted vehicle transporters can be assigned to the Approved Purchaser.

(b) Intangible Assets (including intellectual property rights):

All product specifications, operating manuals, instructions and recipes, product information sheets, price lists and presentations, and other marketing materials, related to the Belloxy Divestment Business, to the extent available, will be provided by Linde to the Approved Purchaser. All intellectual property rights (by way of assignment, non-assertion or non-exclusive, perpetual, irrevocable, royalty-free license) owned by Linde, which are used in conducting the Belloxy Divestment Business will be provided by Linde to the Approved Purchaser. The Approved Purchaser, to the extent required, will be permitted use of any trademarks which are currently used by Linde in



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connection with the Belloxy Divestment Business for a period of up to [...] on a royalty-free basis, for completion of rebranding by the Approved Purchaser.

(c) Licenses, Permits and Authorisations:

All statutory licences, permits and authorisations owned/held by Belloxy/Linde for the operation of the Belloxy Divestment Business, including, *inter alia* a number of manufacturing and marketing authorisations, will be owned/held by the Approved Purchaser.

(d) Contracts, Agreements, Leases, Commitments and Understandings:

All contracts, agreements, leases, commitments and understandings entered into by Belloxy/Linde (to the extent this is not hindered by change of control clauses and the subsequent termination of any such agreements) related to the Belloxy Divestment Business will be transferred / assigned by Linde to the Approved Purchaser, to the extent required by the Approved Purchaser for the operations of the Belloxy Divestment Business. This includes in particular customer contracts and supply contracts with third-party suppliers for the Belloxy Divestment Business. Linde will ensure that where the consent of third parties is required, the relevant consent is obtained.

(e) Customer, Credit and other Records:

All records relating to the customers, credit and other business activities of the Belloxy Divestment Business will be provided to the Approved Purchaser, to the extent necessary.

(f) Personnel: All Personnel that are employed by Linde India at the Belloxy Divestment Business are as follows:



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- The JSW-1 plant is operated and maintained by a team of [...] employees, who are employed by Linde India. Apart from these, there are services contracted for security and housekeeping.

(g) Key Personnel: All Key Personnel of Linde employed at the Belloxy Divestment Business are as follows:

- The key personnel employed by Linde at JSW-1 as below:

[...] [...]

[...] is included in the [...] employees set out in section 3(f) above.

(h) Transitional Support:

- i. At the option of the Approved Purchaser, Linde shall enter into a transitional support agreement as may be required by the Approved Purchaser to conduct the Belloxy Divestment Business in at least the same manner as Linde operated at the time of execution of the BCA. The Parties will provide all such transitional support as required by the Approved Purchaser and deemed necessary by the Commission on the recommendation of the Monitoring Agency or the Divestiture Agency, as the case may be; and;
- ii. An agreement with the Approved Purchaser of the Belloxy Divestment Business for the supply of any process plant component and/or spare part for the process plant included in the Belloxy Divestment Business, which cannot be bought and sourced elsewhere for a period:
 - [...] tonnage on-site plant customer contracts, in relation to the process plant used to supply tonnage/small on-site plant customers; or
 - at least of [...], unless it is proven to the satisfaction of the Monitoring Agency that a shorter period would be sufficient, in relation to all other process plant.



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4. The Belloxy Divestment Business shall not include:

- Books and records required to be retained pursuant to any statute, rule, regulation or ordinance, provided that the Approved Purchaser shall be entitled to obtain a copy of the same and shall be permitted access to the original of such books and records upon reasonable request during normal business hours;
- Monies owed to Linde by customers for the purchase of products pertaining to the Belloxy Divestment Business, and monies owed by Linde to vendors;
- Any intellectual property which does not contribute to the current operations of the Belloxy Divestment Business; and
- Any Brand Names.

5. In the event that materials to be transferred contain information that is confidential to Parties' retained businesses and not relevant for the Belloxy Divestment Business, this information shall be redacted as appropriate.
6. If there is any asset or personnel which is not covered above but which are both used (exclusively or not) in a part of Belloxy Divestment Business and are necessary for the continued viability and competitiveness of part of the Belloxy Divestment Business, that asset, personnel, or an adequate substitute will be offered to the Approved Purchaser.