



COMMERCE COMMISSION

Decision No. 633

Determination pursuant to the Commerce Act 1986 in the matter of an Application for clearance of a business acquisition involving:

Air Liquide New Zealand Limited (Air Liquide)

and

ASCOGAS Limited (ASCOGAS)

- The Commission:** Paula Rebstock
Denese Bates QC
Donal Curtin
- Summary of Application:** Air Liquide has applied to the Commerce Commission for clearance to acquire all of the shares in ASCOGAS Limited
- Determination:** Pursuant to section 66(3)(a) of the Commerce Act, the Commerce Commission determines to give clearance to Air Liquide for the acquisition.
- Date of Determination:** 13 February 2008

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EXECUTIVE SUMMARY

- E1. A notice pursuant to s 66(1) of the Commerce Act 1986 (the Act) was registered by the Commerce Commission (the Commission) on 12 December 2007. The notice sought clearance for the acquisition by Air Liquide New Zealand Ltd (Air Liquide) of all the shares of ASCOGAS Limited (ASCOGAS).
- E2. The Commission concludes that the relevant markets are those for:
- The national wholesale supply and distribution of industrial gases in cylinders;
 - the national wholesale supply and distribution of industrial gases in bulk form; and
 - the production and supply of dry ice to regional markets.
- E3. The Commission considers the likely counterfactual scenario would be that the existing market participants, including ASCOGAS under different ownership, would compete for customers across the country.
- E4. The Commission considers that in the factual scenario the combined entity will continue to face constraint from existing competitors. In addition, the proposed acquisition may be pro-competitive as the merged entity will be in a stronger position to compete with BOC, which has the largest market share in both the bulk and cylinder markets, than if it had to establish its own distribution network in the South Island. The merged entity will also be in a stronger position to compete with BOC for national contracts.
- E5. All the relevant markets are highly concentrated and do have some characteristics which are frequently found in markets where co-ordinated behaviour is found. However, the proposed acquisition represents a relatively small increase in concentration in the market. This together with the absence of obvious entry barriers and the existence of smaller fringe players suggests that the proposed acquisition is unlikely to result in a substantial lessening of competition in the relevant markets.

THE PROPOSAL

1. A notice pursuant to s 66(1) of the Commerce Act 1986 (the Act) was registered by the Commerce Commission (the Commission) on 12 December 2007. The notice sought clearance for the acquisition by Air Liquide New Zealand Ltd (Air Liquide) of all the shares of ASCOGAS Limited (ASCOGAS).
2. The two companies are involved with the distribution and sale of various industrial and medical gases (abbreviated to “industrial gases” in these reasons).
3. The parties have entered into an agreement for the sale and purchase of the relevant shares that is conditional on Commission clearance.

PROCEDURE

4. Section 66(3) of the Act requires the Commission either to clear or to decline to clear the acquisition referred to in a s 66(1) notice within 10 working days, unless the Commission and the person who gave notice agree to a longer period. An extension of time was agreed between the Commission and Air Liquide. Accordingly, a decision on the Application was required by 13 February 2008.
5. The Applicant sought, and the Commission agreed, confidentiality for specific aspects of the Application under section 9(2)(b)(ii) of the Official Information Act 1982.
6. The Commission’s approach to analysing the proposed acquisition is based on principles set out in the Commission’s Mergers and Acquisitions Guidelines.¹

STATUTORY FRAMEWORK

7. Under s 66 of the Act, the Commission is required to consider whether the proposal is, or is likely to have the effect of substantially lessening competition in a market. If the Commission is satisfied that the proposal would not be likely to substantially lessen competition then it is required to grant clearance to the application. Conversely if the Commission is not satisfied it must decline the application. The standard of proof that the Commission must apply in making its determination is the civil standard of the balance of probabilities.²
8. The substantial lessening of competition test was considered in *Air New Zealand & Qantas v Commerce Commission*, where the Court held;

We accept that an absence of market power would suggest there had been no substantial lessening of competition in a market but do not see this as a reason to forsake an analysis of the counterfactual as well as the factual. A comparative judgement is implied by the statutory test which now focuses on a possible change along the spectrum of market power rather than on whether or not a particular position on that spectrum, i.e. dominance has been attained. We consider, therefore, that a study of likely outcomes, with and without the proposed Alliance, provides a more rigorous framework for the comparative analysis required and is likely to lead to a more informed assessment of competitive conditions than would be permitted if the inquiry were limited to the existence or otherwise of market power in the factual.³

9. In determining whether there is a change along the spectrum which is significant, the Commission must identify a real lessening of competition that is

¹ Commerce Commission, *Mergers and Acquisitions Guidelines*, January 2004.

² *Foodstuffs (Wellington) Cooperative Society Limited v Commerce Commission* (1992) 4 TCLR 713-722.

³ *Air New Zealand & Qantas Airways Limited v Commerce Commission* (2004) 11 TCLR 347, Para 42.

not more than nominal and not minimal.⁴ Competition must be lessened in a considerable and sustainable way. For the purposes of its analysis the Commission is of the view that a lessening of competition and creation, enhancement or facilitation of the exercise of market power may be taken as being equivalent.

10. When the impact of market power is expected to be predominantly upon price, for the lessening, or likely lessening, of competition to be regarded as substantial, the anticipated price increase relative to what would otherwise have occurred in the market has to be both material, and ordinarily able to be sustained for a period of at least two years or such other time frame as may be appropriate in any give case.
11. Similarly, when the impact of market power is felt in terms of the non-price dimensions of competition such as reduced services, quality or innovation, for there to be a substantial lessening, or likely substantial lessening of competition, these also have to be both material and ordinarily sustainable for at least two years or such other time frame as may be appropriate.

ANALYTICAL FRAMEWORK

12. The Commission applies a consistent analytical framework to all its clearance decisions. The first step the Commission takes is to determine the relevant market or markets. As acquisitions considered under s 66 are prospective, the Commission uses a forward-looking type of analysis to assess whether a lessening of competition is likely in the defined market(s). Hence, an important subsequent step is to establish the appropriate hypothetical future with and without scenarios, defined as the situations expected:
 - with the acquisition in question (the factual); and
 - in the absence of the acquisition (the counterfactual).
13. The impact of the acquisition on competition is then viewed as the prospective difference in the extent of competition in the market between those two scenarios. The Commission analyses the extent of competition in each relevant market for both the factual and the counterfactual, in terms of:
 - existing competition;
 - potential competition; and
 - other competition factors, such as the countervailing market power of buyers or supplies.

THE PARTIES

Air Liquide

14. Air Liquide is a separately incorporated company in New Zealand and is a subsidiary of Air Liquide SA which is listed on the Paris-Bourse and supplies industrial gases and related services internationally.
15. Air Liquide is based in Auckland and supplies oxygen, nitrogen, argon, acetylene, carbon dioxide and other industrial gases within the North Island. It also supplies a small quantity of industrial gases to wineries in Marlborough and

⁴ *Fisher & Paykel Limited v Commerce Commission* (1996) 2 NZLR 731, 758 and also *Port Nelson Limited v Commerce Commission* (1996) 3 NZLR 554.

recently has begun to supply these gases (not carbon dioxide) to ASCOGAS in Christchurch for that company to re-sell.⁵

16. Air Liquide's revenues are [] million per annum. Over []% of Air Liquide's customers purchase more than one gas from the company.
17. Air Liquide has four branches, all of which are in the North Island, and 53 retail agents (all of which, except one, are based in the North Island). The main part of the company's business is based at its Auckland depot and lies within the triangle formed by Auckland, Hamilton and Tauranga. It has a small Wellington branch [].
18. Air Liquide's operations are as follows. It:
 - manufactures nitrogen and oxygen from its air separation unit which is located at the site of its largest customer for these gases, Pacific Steel at Otahuhu. It distributes and sells these two gases in bulk and in cylinders;
 - manufactures acetylene from calcium carbide at its Auckland depot and distributes and sells this gas in cylinders;
 - produces carbon dioxide by extracting and purifying it from flue gas from the New Zealand Refining Company's Marsden Point refinery near Whangarei. It distributes and sells carbon dioxide in bulk and in cylinders;
 - imports bulk argon from Air Liquide's Australia operation and distributes and sells this gas in cylinders;
 - imports or acquires from BOC, other industrial gases for distribution and sale; and
 - manufactures dry ice from bulk carbon dioxide at its Auckland depot for use mainly at Auckland International Airport for the cooling of airline food and exported primary produce.

ASCOGAS

19. ASCOGAS is a privately owned company incorporated in New Zealand. It is based in Christchurch and supplies oxygen, nitrogen, argon, acetylene, carbon dioxide and other industrial gases mostly within the South Island. Its annual sales of all gases are about \$[] million of which carbon dioxide accounts for about \$[] million and other gases about \$[].
20. ASCOGAS's operations are as follows. It:
 - began in 2006 to acquire carbon dioxide from Vector Ltd at its Kapuni natural gas treatment plant.⁶ Prior to that ASCOGAS obtained carbon dioxide by its extraction from the exhaust gases of a fuel oil burner located in ASCOGAS's Christchurch plant, a process which became uneconomic as liquid fuel prices rose. The Kapuni carbon dioxide production plant is owned by Vector. Vector carries out the separation and purification

⁵ Air Liquide currently sources only about []% of its total revenue from its South Island sales.

⁶ Natural gas from the Kapuni field contains about 45% carbon dioxide which must be removed from the natural gas stream at the purpose-built Kapuni treatment station, before reticulation to consumers. Vector has installed a plant that allows a small proportion of the extracted carbon dioxide to be purified to a suitable standard. ASCOGAS owns a small bulk storage tank on Vector's Kapuni site and loads carbon dioxide from that tank onto its 17 tonne road tanker, for distribution to SupaGas and to the South Island.

processes and delivers the carbon dioxide to ASCOGAS's own bulk storage tank on the Kapuni site;

- has bulk storage of carbon dioxide at its Christchurch depot and on a customer's site in Wanganui. It distributes and sells carbon dioxide in bulk and in cylinders to Supagas in Auckland, to one other North Island customer at Wanganui and to consumers in the South Island;⁷
- manufactures dry ice from bulk carbon dioxide at its Christchurch depot for use mainly at Christchurch International Airport for the cooling of airline food and exported primary produce; and
- acquires the other industrial gases from Air Liquide in cylinders and distributes and sells those gases throughout the South Island.⁸

Other Parties

BOC

21. BOC New Zealand (BOC) is part of the international BOC/Linde group of companies that supply industrial gases and related services. BOC is based in Auckland and is the largest supplier of the entire range of industrial gases in both Islands of New Zealand. BOC's revenues from sales of all gases are about \$[] million.
22. BOC has six branches in the South Island, 15 branches in the North Island, and 63 retail agents. BOC has its major depots in Auckland and Christchurch.
23. BOC's operations are as follows. It:
 - manufactures oxygen, nitrogen and argon⁹ from its "air separation unit" at BHP NZ Steel at Waiuku (its largest customer). It also has a hydrogen manufacturing plant on the BHP site.
 - has bulk storage (carbon dioxide, nitrogen, oxygen, argon) and cylinder filling depots at both Auckland and Christchurch. It also manufactures acetylene at both these depots and distributes and sells this gas in cylinders;
 - acquires carbon dioxide from Vector's Kapuni natural gas treatment station. As for ASCOGAS, the Kapuni carbon dioxide production plant is owned by Vector. Vector carries out the separation and purification processes and delivers the carbon dioxide to BOC's own bulk storage tanks on the Kapuni site;
 - imports additional bulk argon and other industrial gases from BOC Australia and distributes and sells those gases in cylinders; and
 - manufactures dry ice from bulk carbon dioxide at its Auckland and Christchurch depots for use mainly at Auckland and Christchurch International Airports for the cooling of airline food and exported primary produce.

⁷ ASCOGAS also has one small customer in Wanganui to which it provides carbon dioxide at a reduced price in return for the customer's agreement to allow a bulk carbon dioxide storage tank (to provide additional storage to ASCOGAS) to be sited on its property.

⁸ Prior to the sale and purchase agreement between Air Liquide and ASCOGAS, ASCOGAS obtained its non-carbon dioxide gases from SupaGas and prior to that supply, from Southern Gas Services.

⁹ As for Air Liquide, BOC also imports Argon from its Australian sister company. Argon makes up only about 1% of air and not enough can be produced in New Zealand by the air separation process to satisfy the country's demands.

SupaGas

24. SupaGas is a privately-owned industrial gas company distributing, but not manufacturing, the standard range of industrial gases. It has a turnover of about \$[] million per annum.
25. []
26. SupaGas's operations are as follows. It:
- has depots in Auckland and Hamilton which are the centres of its gas distribution and supply business. Its customers are []
 - obtains bulk supply of carbon dioxide from ASCOGAS ex Kapuni under a contract [];
 - obtains its supply of other industrial gases from Air Products¹⁰ from Singapore; and
 - has the facility to manufacture dry ice at its Auckland and Hamilton depots.

Southern Gas Services

27. Southern Gas Services (SGS) is based in Christchurch and entered the markets for the supply of industrial gases in 2003. It supplies gases to customers throughout the South Island in cylinders. It does not supply bulk gases.
28. SGS's operations are as follows. It:
- imports non-air gases and argon [] and supplies to customers throughout the South Island in cylinders;
 - manufactures oxygen and nitrogen from its own air separation unit and distributes those products in cylinders only;
 - has recently begun to obtain carbon dioxide directly from Vector at Kapuni rather than, as previously, from ASCOGAS. Its recovery system at Kapuni is different to that of BOC and ASCOGAS in that it does not have its own bulk storage on the Kapuni site. Rather, it uses its road tanker to connect to the output of the plant and to feed directly into the tanker.

INDUSTRY BACKGROUND¹¹**Production and Importation of Industrial Gases***Oxygen, Nitrogen, Argon*

29. Air comprises about 78% oxygen, 21% nitrogen, 1% Argon together with traces of carbon dioxide and other rare gases. Oxygen, nitrogen and argon are produced by air separation units (ASU) which utilise the different temperatures at which each gas liquefies when air is cooled to just below minus 180 degrees centigrade. Oxygen liquefies first in a separation chamber and is drawn off as a liquid mixture for separation and distribution (mostly by road in New Zealand)

¹⁰ A third large supplier of industrial gases that competes with Air Liquide and BOC internationally.

¹¹ See Appendix 1 for a summary.

in bulk cryogenic tanks.¹² Nitrogen does not liquefy until the temperature falls to minus 196 degrees centigrade so it is drawn off as a gas and converted to its liquid form by pressurisation before also being distributed in bulk cryogenic containers. Some argon is also produced in New Zealand by BOC by the air separation process.

30. The following ASUs exist in New Zealand:
- BOC's at BHP New Zealand Steel's site near Waiuku;
 - Air Liquide's at Pacific Steel's site in Auckland;
 - SupaGas's at its depot in Hamilton which only produces oxygen;
 - Southern Gas's at its depot in Christchurch; and
 - BOC's small plant dedicated to Macraes gold mine in Central Otago.
31. While some argon is produced from BOC's ASU, it is not in a sufficient quantity to supply BOC's customers and most argon used in New Zealand is imported from either Australia or Singapore.

Carbon Dioxide

32. Combustion of hydrocarbons produces carbon dioxide plus water vapour. Thus carbon dioxide is available for extraction from the flue gas of such combustion. This is Air Liquide's method of production. The main purpose of such a production plant is to purify the extracted carbon dioxide to remove impurities such as sulphur dioxide.
33. It is a characteristic of natural gas from many of the Taranaki gas fields that carbon dioxide is entrained in the natural gas. Vector owns a natural gas treatment plant whose purpose is to reduce the very high carbon dioxide content of natural gas from the Kapuni field to acceptable levels that meet New Zealand standards for natural gas composition. Vector's carbon dioxide extraction plant removes only a small fraction of the carbon dioxide produced from the Kapuni field entrained in the natural gas flow. The remainder of the carbon dioxide removed from the natural gas stream in the treatment plant is exhausted to the atmosphere.
34. Carbon dioxide from the Kapuni treatment plant is supplied in bulk to BOC, ASCOGAS, Supagas (via ASCOGAS) and Southern Gas Services all of whom arrange to receive the gas from Kapuni into their bulk truck-mounted cryogenic containers.

Acetylene

35. Acetylene is produced by introducing calcium carbide into water. It is produced in New Zealand by BOC at its Auckland and Christchurch depots and by Air Liquide at its Auckland depot.

Hydrogen

36. Hydrogen is produced in New Zealand only by BOC which has a plant at its BHP NZ Steel site. It also obtains hydrogen from Du Pont New Zealand located in the Waikato, which produces the gas as a by-product of its processes. It supplies hydrogen to the other New Zealand industrial gas companies.

¹² A cryogenic container, in which industrial gases are transported at very low temperatures, is a greatly expanded version of the ubiquitous domestic stainless steel thermos flask.

Other Speciality Gases

37. These include sulphur dioxide, high purity oxygen, argon and carbon dioxide mixtures, helium and nitrous oxide. These gases are not produced in New Zealand and are imported from Australia and Singapore.

Distribution of Industrial Gases

In Bulk

38. Oxygen, nitrogen, carbon dioxide are distributed throughout New Zealand to bulk customers. That is, trucks mounted with cryogenic containers deliver the bulk gas directly from the sources of production discussed above to large customers' site bulk storage tanks.

In Cylinders

39. The five distributors of industrial gases in New Zealand all have cylinder filling operations. Appendix 1 summarises the locations of those operations.
40. The companies variously fill cylinders containing some or all of oxygen, nitrogen, argon, carbon dioxide from their on-site bulk storage tanks at their depots, to distribute by truck to customers.

Dry Ice

41. Dry ice is formed by the compression to solid form and extrusion of bulk carbon dioxide at high pressures. At ordinary temperatures and pressures dry ice sublimates directly to gaseous carbon dioxide (rather than to a liquid) taking in heat as it does so. This property means that it is useful for cooling purposes as the solid form takes in heat from its surrounding as it converts to the gaseous phase. Dry ice has a limited life as a solid at normal temperatures and pressures.

Uses of Industrial Gases

42. Argon is mostly used in steel making and in welding (as a mixture with carbon dioxide in some processes). Its function is to act as an inert shield of the molten weld pool to prevent its contact with oxygen. This avoids oxide inclusions in the weld pool. Such inclusions provide weak points which may allow the weld to fail mechanically.
43. Carbon dioxide is used:
- when mixed with other gases in engineering works for laser cutting and welding;
 - in the food industry as an inert gas to exclude oxygen and potential bacterial contamination of food products;
 - as dry ice to chill food such as that used on aircraft;
 - in wine making;
 - as a propellant and a bubbler in the hospitality industry; and
 - for waste water treatment (pH neutralisation).
44. Nitrogen is used as an inert drying medium, to eliminate oxygen from manufacturing process, for example in the wine making industry and during steel making.
45. Oxygen is used during steel making processes, and for medical purposes, and in metal welding/cutting applications (together with acetylene).

46. Of the other gases, sulphur dioxide is used as a preservative, nitrous oxide for medical applications and helium in the hospitality industry for balloon filling.

PREVIOUS COMMISSION DECISIONS

Commerce Commission

47. On 2 February 2001, the Commission declined to give clearance¹³ for BOC to acquire ASCO Carbon Dioxide (which at that time incorporated the current ASCOGAS). The decision was made on the basis that the acquisition would have removed the only competition in the South Island market for the wholesale supply and distribution of carbon dioxide. Entry was considered to be unlikely within the Commission's two year time frame.

Other Jurisdictions

48. In 2000, a joint venture between Air Liquide and Air Products sought to acquire the global assets of the BOC Group plc. Competition authorities in Canada, New Zealand and Europe cleared the transaction but the proposed acquisition did not proceed because of the failure of the parties to obtain the approval of the US Federal Trade Commission before the date on which the pre-conditions of the offer expired.
49. A more recent case is the acquisition by Linde AG of the BOC Group plc. The Competition Authorities in Europe¹⁴, the US¹⁵ and Australia¹⁶ identified separate markets for the bulk and cylinder supply of industrial gases. Transportation costs were considered a factor in determining the geographic scope of the relevant markets with either a state-based or national market being identified.

MARKET DEFINITION

Introduction

50. The Act defines a market as:
- ... a market in New Zealand for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them.
51. For the purpose of competition analysis, the relevant market is the smallest space within which a hypothetical, profit-maximising, sole supplier of a good or service, not constrained by the threat of entry would be able to impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the SSNIP test). The smallest space in which such market power may be exercised is defined in terms of the dimensions of the market discussed below. The Commission generally considers a SSNIP to involve a five to ten percent increase in price that is sustained for a period of one year.
52. The Commission has stated in its Mergers and Acquisitions Guidelines:

¹³ Decision 414: *BOC Gases New Zealand Limited and ASCO Carbon Dioxide Limited*. 2 February 2001.

¹⁴ http://ec.europa.eu/comm/competition/mergers/cases/index/m82.html#m_4141

¹⁵ <http://www.ftc.gov/opa/2006/07/lindeBOC.shtm>

¹⁶

<http://www.accc.gov.au/content/item.phtml?itemId=763113&nodeId=b84a24ff9f2387f83600135409da b708&fn=Linde%20AG%20proposed%20acquisition%20of%20the%20BOC%20Group%20plc%E2%80%9421%20September%202006%E2%80%9494industrial%20gas.pdf>

“For competition purposes, a market is defined to include all those suppliers and all those buyers, between whom there is close competition, and to exclude all other suppliers and buyers. The focus is upon those goods or services that are close substitutes in the eyes of buyers, and upon those suppliers who produce or who could easily switch to produce, those goods or services. Within that broad approach, the Commission defines relevant markets in a way that best assists the analysis of the competitive impact of the acquisition under consideration, bearing in mind the need for a commonsense, pragmatic approach to market definition.”

53. The two firms which are the subject of the Application are engaged in a range of activities relating to industrial gases:
- Air Liquide produces carbon dioxide at Marsden Point and oxygen and nitrogen at the Pacific Steel plant at Otahuhu. It also produces dry ice from carbon dioxide and acetylene from calcium carbide at its Penrose depot. Air Liquide supplies oxygen, nitrogen, argon, acetylene, carbon dioxide and other industrial gases in the North Island and supplies industrial gases in cylinders to wineries in Marlborough. Air Liquide has four branches, all of which are in the North Island, and 53 retail agents, all but one of which are based in the North Island; and
 - in the past ASCOGAS produced carbon dioxide by burning fuel oil and extracting carbon dioxide from the flue gas at its plant in Christchurch. However that plant has now been sold. ASCOGAS is, therefore, no longer a producer; rather it acquires carbon dioxide from Vector’s natural gas treatment plant at Kapuni and distributes it along with other industrial gases to South Island consumers. ASCOGAS also distributes carbon dioxide to two firms in the North Island. ASCOGAS processes carbon dioxide to produce dry ice at its Christchurch depot to supply mainly to the airline catering and food exporting businesses at the Christchurch airport. ASCOGAS also supplies the same range of industrial gases in the South Island that Air Liquide (and others) supply in the North Island. ASCOGAS has variously sourced those other gases from SupaGas, Southern Gas Services and now Air Liquide.

Market Definition in Decision 414

54. Air Liquide has noted that the Commission declined an Application from BOC to acquire ASCOGAS in 2001¹⁷ and in its analysis for that case the relevant market was defined as that for the wholesale supply and distribution of carbon dioxide in the South Island.
55. In its Application Air Liquide suggests that the market definition adopted in Decision 414 remains broadly appropriate for the current Application, but it recognises that it will be necessary to consider the impact in the North Island as well as the South Island. Thus Air Liquide considers that the relevant markets affected by the proposed transaction are the North Island market for the wholesale supply and distribution of carbon dioxide and the South Island market for the wholesale supply and distribution of carbon dioxide.
56. The Commission accepts that Decision 414 provides a useful background to the present case and is helpful in that respect. However, the acquirer in the current case is different and there have been important changes since 2001 in the way ASCOGAS operates. In particular, ASCOGAS no longer produces carbon

¹⁷ Decision 414: *BOC Gases New Zealand Limited and ASCO Carbon Dioxide Limited*. 2 February 2001.

dioxide itself and it has expanded its range of gases it distributes beyond carbon dioxide to now include the full range of industrial gases.

The Product Market

57. Both Air Liquide and ASCOGAS distribute a range of industrial gases, including carbon dioxide, oxygen, nitrogen, argon, acetylene, nitrous oxide etc. From the user's perspective, these gases are not substitutable for each other. Nevertheless these gases tend to be distributed together when supplied in cylinders and many consumers¹⁸ take more than one gas. The Commission has been advised that many gas users now have a strong preference to acquire all their industrial gases from one source to lower handling and transaction costs. A distributor unable to provide a customer's full requirements would be strongly disadvantaged in the supply to those customers.
58. In these circumstances a distributor of, say, carbon dioxide alone is unlikely to provide a fully effective competitive constraint on firms offering the full range of industrial gases, such as Air Liquide, ASCOGAS and BOC. It is possible that a single supplier of the range of gases may be able to charge prices above competitive levels for an individual gas even if there were also specialist distributors offering that gas alone.
59. There appears to be an important distinction between the supply of carbon dioxide, nitrogen and oxygen in bulk form and the supply in cylinder form. On the demand side, large consumers regard supply by cylinders as an impractical and much more expensive alternative to bulk supply. On the supply side, a distributor of gas in cylinders would be required to make a considerable capital investment to acquire iso-containers (costing around \$250,000 each) if it sought to expand into bulk distribution of gases.¹⁹
60. Having regard to these matters the Commission considers that the competition consequences of the proposed acquisition can best be assessed by considering industrial gases collectively, but distinguishing between those sold in cylinders and those sold in bulk form.
61. Dry ice is produced by both Air Liquide and ASCOGAS (and also BOC and SupaGas), albeit in different parts of the country. ASCOGAS only produces dry ice in its Christchurch depot and Air Liquide only produces it at its Auckland depot, mostly for supply to aviation and food export industries associated with the Christchurch and Auckland international airports.
62. In Decision 414, dry ice was considered together with carbon dioxide in both bulk and cylinder form. In the circumstances relevant to the current Application the Commission considers that it is appropriate to consider the impact of the proposed acquisition on the production and supply of dry ice, and this is facilitated by adopting a discrete product market for this purpose. It is noted that because it is difficult to transport dry ice over long distances, the market has regional characteristics. The relevant regions are based around major cities such as Auckland, Wellington and Christchurch.

¹⁸ [] in the case of Air Liquide.

¹⁹ An iso-container is essentially a large thermos flask whose purpose is to allow the distribution of liquid carbon dioxide, nitrogen and oxygen at very low temperatures.

The Functional Market

63. The Applicant has stated in the Application that it considers that the relevant functional market (for carbon dioxide) is that for the wholesale supply and distribution. This was the functional market used in Decision 414.
64. As noted above, ASCOGAS is no longer involved in the production of carbon dioxide, although it has expanded the range of gases it distributes since 2001. It acquires gases from a number of producers, including carbon dioxide from Vector at Kapuni, and other gases from a number of New Zealand suppliers. It then distributes those gases to consumers either in cylinders or in bulk form.
65. These functions are replicated by Air Liquide, albeit principally in the North Island whereas ASCOGAS is principally in the South Island. Air Liquide also produces carbon dioxide at Marsden Point, but as no aggregation in production would arise from the proposed acquisition it is not considered necessary to consider carbon dioxide production further in this Decision.
66. The Commission considers that the functional market used in Decision 414 (wholesale supply and distribution) is appropriate for the assessment of the competitive impact of the proposed acquisition.

The Geographic Market

67. Industrial gases are either imported or produced from a small number of sites and are distributed throughout the country from those sites.
68. The Application states:

Carbon dioxide is a bulky and low value, low margin product. Accordingly, transport costs represent a high proportion of the cost of supply and distribution of carbon dioxide. Therefore, as a starting point, Air Liquide notes that the Commission's approach to defining product market states where transport costs are high relative to the final value of a product, a narrower geographic market is more appropriate.²⁰
69. The Applicant states that it agrees with the Commission's conclusions on the geographic dimensions of the market in Decision 414. In that decision the Commission adopted a South Island geographic market. In this instance the Applicant suggests separate North Island and South Island markets.
70. A principal issue for the Commission in relation to the BOC/ASCOGAS merger proposal (Decision 414) was the potential for a distributor of carbon dioxide in the North Island to provide a competitive constraint on BOC/ASCOGAS in the South Island. In particular, the Commission considered whether Air Liquide could profitably supply in the South Island in the event of a SSNIP in the South Island. Air Liquide was sourcing its carbon dioxide from Marsden Point and it was considered that the freight disadvantage it would face in the South Island meant that it would be unlikely to prevent a SSNIP. Accordingly a South Island geographic market was considered relevant to the analysis in that instance.
71. The situation has changed in some respect since that decision. All South Island production of carbon dioxide has now ceased – rather it is produced either at Kapuni or Marsden Point. Vector has stated that it is able to supply all distributors with Kapuni carbon dioxide, including potentially, Air Liquide.

²⁰ The application cites the Commission's Mergers & Acquisitions Guidelines. However it is noted that the Guidelines actually say "... a narrower market definition is more likely to be appropriate."

For consumers south of Waikato the cost of transport would be much lower from Kapuni than from Marsden Point. It is considered that transport costs would be similar for all firms, after adjusting for differences in scale.

72. It is increasingly common for national consumers to favour one supplier to meet all their industrial gas requirements throughout the country. By doing so the consumer can minimise transaction costs.
73. These factors support the view that there is now a national market for the supply and distribution of industrial gases.

Conclusion on Markets

74. The Commission concludes that the relevant markets are those for the:
 - national wholesale supply and distribution of industrial gases in cylinders;
 - national wholesale supply and distribution of industrial gases in bulk form; and
 - production and supply of dry ice to regional markets.

COUNTERFACTUAL AND FACTUAL

75. In deciding whether an acquisition is likely to have the effect, or likely effect, of substantially lessening competition in a market, the Commission assesses the likely difference in competition outcomes between two hypothetical situations, one with the acquisition (the factual) and one without (the counterfactual).²¹ The difference in competition between these two future scenarios is the expected competitive impact of the acquisition.

Factual

76. The Applicant submitted that in the factual, Air Liquide acquires ASCOGAS and as a result the combined entity will be better placed to compete against BOC in the lower part of the North Island market and also in the South Island market.
77. The Commission considers that the characteristics of the factual are:
 - Air Liquide would acquire all the shares in ASCOGAS and obtain ASCOGAS's source of carbon dioxide from Kapuni and also its existing network of industrial gas customers;
 - BOC would remain as the largest national competitor in the relevant markets;
 - SupaGas and Southern Gas remain as smaller competitors; and
 - in the factual there would be two large competitors and two smaller competitors.

Counterfactual

78. The Applicant submits that in the counterfactual the ASCO Group will seek to sell ASCOGAS. Air Liquide also asserts that given ASCOGAS' [

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²¹ *Air New Zealand & Qantas Airways Ltd v Commerce Commission* (No.6), unreported HC Auckland, CIV 2003 404 6590, Hansen J and KM Vautier, Para 42.

79. Air Liquide raised the possibility that ASCOGAS could exit the market, but considered the most likely counterfactual to be the status quo (whether in current ownership or owned by a third party).
80. Air Liquide informed the Commission that, in the absence of the acquisition, it would most likely continue a strategy of seeking growth opportunities in the upper North Island.
81. As stated previously, the exclusive agreement between Vector and BOC at Kapuni is no longer in force, allowing other suppliers to source carbon dioxide from this site. Air Liquide could potentially source carbon dioxide from Kapuni, thereby facing similar transport costs to others in supplying customers in the South Island.
82. The Commission considers the likely counterfactual scenario to be:
- ASCOGAS would be sold [];
 - taking a conservative view ASCOGAS or its successor would remain as a small national competitor;
 - Air Liquide would independently source CO₂ from Kapuni;
 - BOC would remain as the largest national competitor;
 - SupaGas and Southern Gas would remain as smaller competitors; and
 - in the counterfactual there would be two large competitors and three small competitors.

COMPETITION ANALYSIS

Existing Competition

83. Existing competition occurs between those businesses in the market that already supply the product, and those that could readily do so by adjusting their product-mix (near competitors).
84. An examination of concentration in a market can provide a useful indication of the competitive constraints that market participants may place upon each other, providing there is not significant product differentiation. Moreover, the increase in seller concentration caused by a reduction in the number of competitors in a market by an acquisition is an indicator of the extent to which competition in the market may be lessened.
85. The Applicant submitted that rather than lessening competition in the relevant markets, the proposed acquisition is likely to lead to improved competition as the merged entity will be better placed than ASCOGAS currently, to compete with BOC on a truly national basis.
86. The market shares as estimated by the Applicant for each of the markets identified are set out below. They do vary to some extent from “ball park” estimates of the other major firms in the market. It has been difficult to reconcile the differences, although in part they are caused by variations in the way cylinder rentals are measured. Nevertheless, all estimates indicate that BOC is by far the largest player in the market with between [] percent and [] percent, Air Liquide is second with between [] percent and [] percent while ASCOGAS is a relatively small player with between [] percent and [] percent.

The discussion below focuses on Air Liquide's estimates which tend to be around the middle of the range of estimates.

The national market for the wholesale supply and distribution of industrial gases in cylinders

87. This market is estimated to be worth \$[] million. The proposed acquisition would result in the merged entity having an [] percent market share. This represents only a marginal increase in market shares and compares with BOC's estimated [] percent.

Company	Value \$m	Market Share (%)
BOC	[]	[]
Air Liquide	[]	[]
ASCOGAS	[]	[]
Merged entity	[]	[]
SupaGas	[]	[]
Southern Gas Services	[]	[]

The national market for the wholesale supply and distribution of industrial gases in bulk

88. There are currently only three players operating in this market. However, ASCOGAS does not supply oxygen, nitrogen and in bulk, only carbon dioxide. In respect of carbon dioxide the proposed merger will see the aggregation of the two smaller players. In respect of oxygen and nitrogen the factual and the counterfactual will be similar. The proposed acquisition would result in the merged entity having a [] percent market share, but again this represents a relatively small aggregation and is restricted solely to carbon dioxide because as stated, ASCOGAS does not currently supply other gases in bulk.

Company	Value \$m	Market Share (%)
BOC	[]	[]
Air Liquide	[]	[]
ASCOGAS	[]	[]
Merged entity	[]	[]

The production and distribution of dry ice in regional markets

89. The market shares provided by the Applicant and listed below show that Air Liquide and ASCOGAS are the main suppliers of dry ice in New Zealand. Due to the need for suppliers of dry ice to generally be located near to those firms that they are supplying, and in particular near to international airports, the Commission has concluded that there are regional markets in Auckland, Wellington and Christchurch for the supply of dry ice. ASCOGAS supplies dry ice only in Christchurch and Air Liquide only in Auckland. Therefore, the merger will not lead to concentration in the supply of dry ice in any region. As a result, the following competition analysis does not further consider dry ice markets.

Company	Value \$m North Island	Market Share (%)	Value \$m South Island	Market Share (%)
BOC	[]	[]	[]	[]
Air Liquide	[]	[]	[]	[]
ASCOGAS	[]	[]	[]	[]
Merged entity	[]	[]	[]	[]
SupaGas	[]	[]	[]	[]

90. High market shares can indicate there may be market power concerns, although in themselves they are not evidence of market power. Where the post-acquisition market share is low, it is usually an indication that competition concerns would not be likely to arise from the acquisition. The Commission in its discussion on “Safe Harbours” in its Mergers and Acquisitions Guidelines has stated that an acquisition is unlikely to substantially lessen competition even where the three firm concentration ratio is above 70% if the share of the merged entity is less than the order of 20 percent. The proposed acquisition which is the subject of the Application is close to this “safe harbour”.

Constraint from Existing Competitors

91. In these reasons, the Commission considers that the acquisition will not lead to a substantial lessening of competition in the relevant markets. This is largely due to the existing position of BOC in the market. It is estimated that BOC currently has a [] percent market share of the bulk supply and distribution of industrial gases in New Zealand and a [] percent market share of the cylinder market and has the market power to act as a constraint on the merged entity.
92. At present SupaGas and Southern Gas Services provide distribution services in only limited parts of the country. Nevertheless, given appropriate incentives, they appear to have the ability to expand, particularly in respect of their cylinder distribution services. [].
93. With reference to the counterfactual, the Commission considered the degree to which the merger would lead to a loss of potential competition from ASCOGAS. ASCOGAS has sourced its carbon dioxide from the Kapuni gas field for over 12 months, [].
- []. In addition, ASCOGAS believes that its market share in the supply of carbon dioxide in the South Island, its specialty gas, []. In 2000, ASCOGAS only supplied and distributed carbon dioxide. It now distributes a wider range of industrial gases although carbon dioxide still represents the bulk of its sales. However, the Commission notes that ASCOGAS is only a fringe player in industrial gas markets, when compared to BOC and Air Liquide. Moreover, at present its business is the mere distribution of industrial gases produced or imported by others. As such, the Commission does not consider it is likely to provide much of a constraint in the counterfactual in the foreseeable future.
94. To compete more effectively as a fully national competitor in industrial gas supply, ASCOGAS would need to invest in its own production equipment and expand its distribution network, particularly in the North Island. []

]

95. Air Liquide could potentially expand in the South Island independently of the acquisition, using its expertise to target wineries and dairy producers but unless it enters on a significant scale, it is unlikely to act as a strong competitor to BOC. BOC is able to offer customers in the South Island, some of whom will be national companies, both the range of industrial gases and an established distribution network. In the absence of the acquisition, it may take time for Air Liquide to develop its own distribution network and customer base in order to be an effective competitor to BOC.

Constraint from Potential Entry

96. An acquisition is unlikely to result in a substantial lessening of competition in a market if the businesses in that market continue to be subject to real constraints from the threat of market entry. The Commission's focus is on whether businesses would be able to enter the market and thereafter expand should they be given an inducement to do so, and the extent of any impediments they might encounter should they try.
97. The market for the supply and distribution of industrial gases in New Zealand is highly concentrated. The market share information provided by the Applicant states that BOC supplies over [] percent of the national market in both cylinder and bulk form. In the last five years there has only been one new entrant to the New Zealand market, SGS. SGS only provides industrial gases in cylinders; and does not operate in the bulk gas supply market.
98. A new entrant would require access to competitive sources of industrial gases, whether manufactured by itself, bought domestically or imported. This was emphasised by the smaller suppliers the Commission spoke to who, in the past, had experienced difficulties in obtaining competitively priced carbon dioxide, in particular. One party had been forced for a short time to import carbon dioxide at \$[] per kilogramme. That figure compares with around [] per kilogramme that BOC pays Vector for carbon dioxide at Kapuni. However, that matter has been resolved with Vector now prepared to supply all-comers from its Kapuni plant.
99. Supply of the range of industrial gases, independent of either BOC or Air Liquide, is available to a potential entrant from sources such as Vector, Core Gas in Australia and Air Products in Singapore.
100. As a firm expands, it will need to invest in a bigger distribution network and consider the viability of supplying the bulk market.
101. Customers purchasing industrial gases in bulk rather than in cylinders will be likely to have a contract with their supplier as the supply of industrial gases is linked to the leasing of a container in which the gases are stored. These contracts vary in length, but can be up to [] years and in some cases longer. This can act as a disincentive to entry, particularly to new entrants or those wishing to expand into this segment of the market.
102. Most industrial gases must be stored and distributed either under pressure, which requires them to be carried in heavy and bulky cylinders, or at extremely low temperatures in specifically insulated truck-mounted cryogenic containers. Based on figures provided to the Commission, an estimate of the

capital investment required of an entrant would be \$1-2 million for cylinders, storage containers, transport and other plant and equipment. In addition, a small air separation unit to produce oxygen and nitrogen (and sometimes argon) would cost between \$1 and 2 million. Similarly, an acetylene plant could cost about \$2 million.

103. Therefore, the supply and distribution of industrial gases requires some investment in assets such as real estate, air separation unit, liquefiers, filling centres, cryogenic containers, road tankers, cylinders and other equipment. The Commission estimates that a new entrant entering the market in both the bulk and cylinder market would need to invest between \$4 and 6 million. The capital cost required to enter the supply and distribution of industrial gases in cylinders is likely to be less than this.
104. In Decision 414 (which did not relate to industrial gases generally – only to carbon dioxide markets), the Commission concluded that entry into the wholesale supply and distribution of carbon dioxide in the South Island of New Zealand was not likely or sustainable. This was largely due to the fact that an entrant would not be able to obtain a large enough supply of carbon dioxide at a competitive price. As stated, this is no longer the case as there are no exclusive arrangements regarding the sourcing of carbon dioxide from Vector at Kapuni.
105. The availability of gases and the relatively low capital costs required to enter the distribution market for industrial gases leads the Commission to conclude that barriers to entry are relatively low. While the number of players in the market has been fairly static, the Commission notes that it would be feasible for a large customer or group of customers to potentially establish their own arrangements to source and supply these industrial gases if prices for industrial gases rose significantly.

Countervailing Power

106. Responses from customers suggest that there may be some countervailing power for the larger customers who are most likely to purchase in bulk and have multi-sites. One large national customer that purchases in bulk did not express concerns about the merger but stated that it currently operates a policy of maintaining two suppliers of industrial gases.
107. In general customers see themselves as having limited countervailing power.

Co-ordinated Behaviour

108. All the relevant markets are highly concentrated. Further, the Commission considers that the bulk and cylinder industrial gas markets in New Zealand do have some of the characteristics which are frequently found in markets susceptible to co-ordinated behaviour. That is, all relevant markets have a small number of large competitors, slow speed of new entry, no substitute products and a homogenous product.
109. Where markets are sufficiently concentrated, the actions of individual firms can have identifiable effects on their competitors, such that firms recognise their interdependence. The interdependence of oligopolistic firms may lead them to anticipate competitors' responses to their own actions and take this into account in their own decisions. The repeated nature of such decisions can have significant effects on business strategies and on competition. In particular,

under certain circumstances, it can become rational to refrain from initiating price cuts which would be unavoidable in more competitive circumstances.

110. The Commission received a submission from a third party that alleged that co-operative arrangements exist between Air Liquide and BOC for supply during shutdowns and other disruptions. It is also suggested that industrial gas prices are high in those areas of New Zealand where no third party competes with Air Liquide and BOC.
111. However, after consideration of available information, the Commission consider that the likelihood of an increase in the potential to exercise co-ordinated conduct is not substantial. The absence of obvious entry barriers together with the existence of a number of fringe players should act to deter firms from participating in collusive conduct. The relatively small increase in the market concentration resulting from the proposed acquisition is not sufficient to lead to, or result in, a likely substantial lessening of competition in the relevant markets from coordination effects.
112. Furthermore, information provided to the Commission by Air Liquide suggests that the merger could be pro-competitive and increase national competition as the market is expected to see growth in demand from the dairy and wine industries. Air Liquide currently has an established market position with the wineries in Marlborough and the acquisition would put Air Liquide in a better competitive position than if it was required to expand its own distribution network, particularly in the South Island, *de novo*.
113. Air Liquide argues that it would provide stronger national competition to BOC than ASCOGAS because it:
 - is able to supply from its own sources a full range of industrial gases;
 - operates an efficient supply chain (rather than purchasing from a third party as ASCOGAS does);
 - offers a high value-added service that includes expert advice on the applications of industrial gases, which is highly valued by customers; and
 - has credibility as an international business in the supply of industrial gases.

SUMMARY AND CONCLUSION

114. The Commission has considered the probable nature and extent of competition that would exist, subsequent to the proposed acquisition, in the following markets:
 - the national wholesale supply and distribution of industrial gases in cylinders;
 - the national wholesale supply and distribution of industrial gases in bulk form; and
 - the production and supply of dry ice to regional markets.
115. The Commission considers that in the factual scenario the combined entity will continue to face constraint from existing competitors and potential entry or expansion. In addition, the proposed acquisition may be pro-competitive as the merged entity will be in a stronger position to compete with BOC nationally. The merged entity will also be in a stronger position to compete with BOC for the provision of industrial gas supply to those firms which wish to enter into one

contract for each of their regional sites throughout New Zealand. All the relevant markets are highly concentrated and do have some characteristics which are frequently found in markets where co-ordinated behaviour is found. However, the proposed acquisition represents a relatively small increase in concentration in the market. This together with the absence of obvious entry barriers and the existence of smaller, fringe players will alleviate any competition concerns arising from the small degree of aggregation of market shares which will result from the acquisition.

116. Therefore, in the Commission's view the proposed acquisition will not have, or would not be likely to have, the effect of substantially lessening competition in the relevant markets.

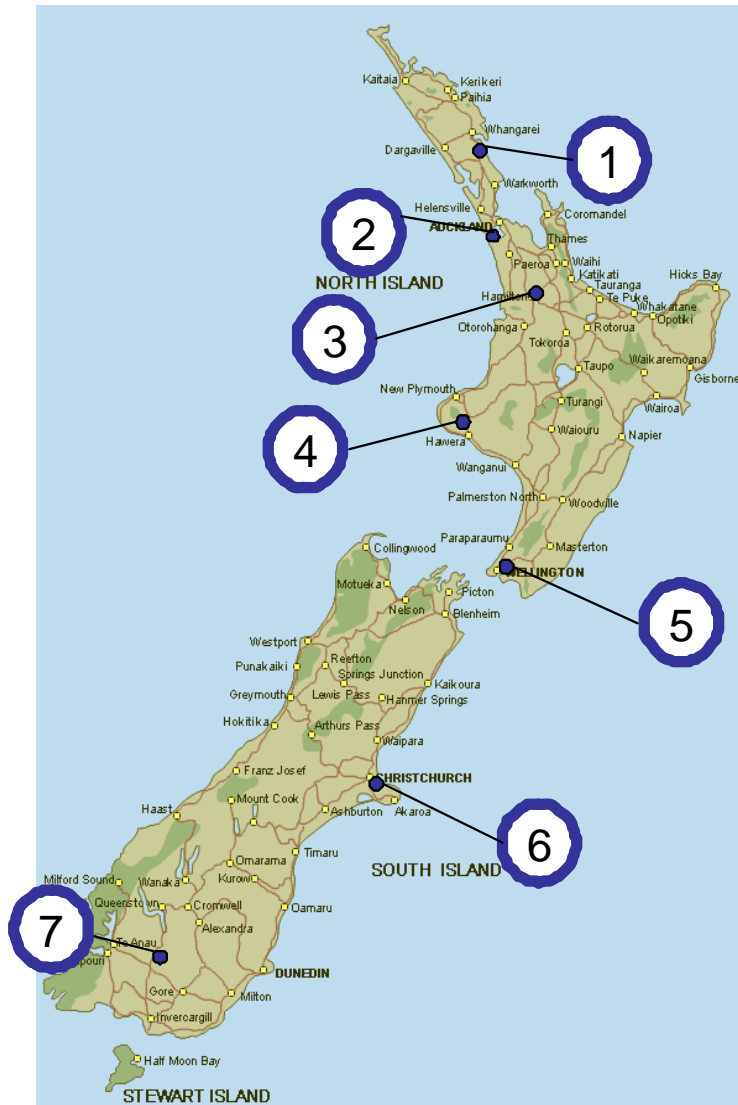
DETERMINATION ON NOTICE OF CLEARANCE

117. Pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by Air Liquide New Zealand Limited of all the shares in ASCOGAS Limited.

Dated this 13th day of February 2008

Paula Rebstock
Division Chair

Appendix 1: New Zealand – Industrial Gases



Index	Reference
1	Marsden Point: ALNZ CO ₂ source
2	Auckland: ALNZ Air Separation Unit at Otahuhu (Pacific Steel) and Bulk Storage/Filling Centre and Head Office at Penrose. BOC Air Separation Unit at Glenbrook (NZ Steel) and Bulk Storage/Filling Centre and Head Office at Penrose. SupaGas: Filling Centre at Wiri (Sth Auckland) with small bulk CO ₂ tank.
3	Hamilton: SupaGas Filling Centre and oxygen plant
4	Kapuni: BOC, Southern Gas, SupaGas and ASCO CO ₂ source
5	Wellington: ALNZ Filling Centre servicing south end of Nth Island and Agent in Marlborough. BOC Branch.
6	Christchurch: ASCO base with CO ₂ filling; BOC South Island Bulk Storage Centre and Filling Centre. Southern Gas Oxygen plant and Filling Centre.
7	MacKenzie Basin: BOC Air Separation Unit dedicated to a customer.
	BOC Gases also has a network of branches distributing products (21) located throughout NZ covering some of the above listed locations as well as other main centres. See page 3 for further detail.

New Zealand – All Industrial Gases including CO2

	Production	Procured locally	Imported
Air Liquide	Air gases (Oxygen and Nitrogen) Acetylene CO2 (ex Marsden Point)	Hydrogen (Supplied by BOC due to the fact that Hydrogen is highly flammable and thus difficult and expensive to transport)	Argon & Specialty Gases (including Sulphur Dioxide, High Purity Laser gas mixtures, and Ultra High Purity Argon and Oxygen) are imported from Air Liquide Australia. Helium is imported by, and sourced from, BOC due to the fact that sources across the world are very limited. Nitrous Oxide is also imported by, and sourced from, BOC due to it owning the only plant which services the Australian and NZ markets).
BOC Gases	Air gases (Oxygen, Nitrogen and Argon) Hydrogen Acetylene	Hydrogen (BOC has its own Hydrogen plant and also draws Hydrogen from DuPont's plant in Waikato) CO2 from Kapuni	Speciality Gases Nitrous Oxide Helium
SupaGas	Oxygen (At its Hamilton plant)	CO2 (from ASCO Gas) from Kapuni	Acetylene, Helium, Argon Speciality Gases (from Core Gas, Australia)
ASCO Gas		Industrial and Medical Gases (from Southern Gas and from December 2007 from Air Liquide) CO2 from Kapuni	
Southern Gas	Oxygen	CO2 from Kapuni	Acetylene, Helium, Argon Speciality Gases (mainly from Air Products, Singapore)