ISSN NO. 0114-2720
J5659

PUBLIC VERSION

COMMERCE COMMISSION

DETERMINATION

Decision 505

Determination pursuant to the Commerce Act 1986 in the matter of an application for authorisation of a restrictive trade practice. The Application is made by:

OMV NEW ZEALAND LIMITED; SHELL EXPLORATION NEW ZEALAND LIMITED; SHELL (PETROLEUM MINING) COMPANY LIMITED; TODD (PETROLEUM MINING COMPANY) LIMITED

The Commission:	P R Rebstock, Acting Chair D R Bates QC S W Stevens
Summary of Application:	The Applicants have applied for authorisation to enter into arrangements to jointly market and sell gas produced from the Pohokura natural gas field.
Determination:	Pursuant to sections 58 and 61(1)(a) of the Commerce Act 1986, the Commerce Commission determines, to authorise the Application, subject to specific conditions.
Date of Determination:	1 September 2003

CONFIDENTIAL MATERIAL IN THIS REPORT IS CONTAINED IN SQUARE BRACKETS.

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EXECUTIVE SUMMARY

Introduction

1. By letter dated 20 December 2002, Preussag Energie Gmbh ("Preussag"), Shell Exploration New Zealand Limited and Shell (Petroleum Mining) Company Limited ("Shell"); and Todd (Petroleum Mining Company) Limited ("Todd"), applied to the Commerce Commission ("the Commission") under s 58(2) of the Commerce Act 1986 ("the Act") for authorisation to enter into arrangements to jointly market and sell gas produced from the Pohokura field ("the Arrangement").

2. On 14 May 2003, the Commission was notified that OMV New Zealand Limited ("OMV") has purchased Preussag's participating interest in the Pohokura Joint Venture ("the Pohokura JV"). Accordingly, the Application for authorisation made by the Pohokura Joint Venture parties ("the Pohokura JV parties") on 20 December 2002 was amended by substituting OMV for Preussag.

3. The Arrangement comprises two provisions in essence under which the Applicants propose to:

   - discuss and agree on all relevant terms and conditions, including price, quantity, rate, specification and liability for the joint sale of gas from the Pohokura field; and
   - negotiate and enter into contracts for the sale of the Pohokura field gas jointly (i.e. as one seller).

4. The Applicants have explicitly excluded the marketing and sale of all petroleum products, other than natural gas,[1] from the scope of their Application for authorisation.

5. The Commission considers that separate marketing of gas is pro-competitive and is its preferred method of gas marketing. However, the Commission recognises that in some limited circumstances, joint marketing can provide benefits to the public of New Zealand. In this case, the Commission considers that the joint marketing proposal might result in the development of Pohokura one year earlier than would be the case if separate marketing were required. Over time, the Commission expects the gas market in New Zealand to develop further, in which case, the Commission would be less willing to authorise joint marketing proposals. The Commission has granted an authorisation to the current proposal due to the existing state of the market and subject to specific conditions. The Commission considers that these conditions will give greater certainty that the benefits will be achieved and will also serve to mitigate the detriment to competition that would otherwise result from joint marketing.

[1] For example, oil, condensate, liquefied petroleum gas, and naptha.

6. During its consideration of this matter, the Commission received two Government Policy Statements made under s 26 of the Act. The Commission has given careful consideration to, and has had regard to, the two statements transmitted to it by the Government.

Framework for Consideration

7. The Commission is responsible for deciding whether to authorise the Application under the relevant provisions of the Act.

8. In brief, the Commission must determine whether the Arrangement would result, would be likely to result, or is deemed to result in a lessening of competition in the market, and if so, whether the detriments flowing from this lessening of competition are outweighed by the public benefits that result or would be likely to result from the Arrangement. The Commission considers that a public benefit is any gain, and a detriment is any loss, to the public of New Zealand, with an emphasis on gains and losses being measured in terms of economic efficiency. If the Commission is satisfied that the public benefits outweigh the detriments, it will authorise the Arrangement.

Commission Process

9. In making this Determination, the Commission has fully considered and given weight to information and analysis from a wide range of sources. It has:

- reviewed the information and analysis in the Application, including the economic analysis submitted by the Applicants' economic experts;
- sought further information and clarification from the Applicants on a range of points;
- considered submissions from interested parties on the Application;
- interviewed the Applicants and numerous other parties;
- considered submissions from the Applicants and interested parties on the draft determination, including oral presentations at a conference;
- consulted further with the Applicants and interested parties on conditions;
- sought advice from its own legal, economic and industry experts; and
- conducted its own analysis and modelling.

10. Below is a summary of the Commission's key conclusions.

The Factual and Counterfactual

11. In order to assess the competition effects, as well as the detriments and benefits, the Commission compares the factual to the counterfactual, or what would likely happen in the absence of the Arrangement. The factual is what would happen if the Arrangement proceeds. A counterfactual will not necessarily be a continuation of the status quo, but rather encapsulates a pragmatic and commercial assessment of what is likely to happen in the absence of the factual.

12. The factual and counterfactual give rise to different states of competition in the relevant market. A comparison between them allows a judgment to be made as to whether competition in the factual is likely to be lessened relative to the counterfactual.

The Factual

13. The factual, involves the three Pohokura JV parties jointly developing and marketing the gas from the Pohokura field, with first gas scheduled for the beginning of February 2006, and full production capability for the second quarter of 2006.

The Counterfactual

14. The Commission is of the view that on the balance of probabilities, the counterfactual would have the following characteristics:

- the Pohokura JV parties will negotiate and agree on the development profile and gas output of the field;
- the parties will then separately sell their proportion of the gas in line with their equity ownership of the field;
- the parties will negotiate and agree on measures to address the associated problems with separate marketing; and
- production of the Pohokura field will be delayed by one year from the February 2006 commencement date, to February 2007 for first gas, and the end of June 2007 for full production capability.

Market Definition and Competition Analysis

15. The Commission has concluded that the market relevant to its consideration of the Application is the national natural gas production (and first point of sale) market ("the gas market").

16. The Applicants have claimed the Arrangements have neither an anti-competitive purpose or anti-competitive effect, and that joint marketing would not have the effect of substantially lessening competition. Rather, the Applicants claim that joint marketing would have a neutral or positive effect on competition when compared with any of the three counterfactuals.

17. The Commission has reached the conclusion that the overall impact of the Arrangement would result, or would be likely to result, in a lessening of competition in the gas market.

18. In broad terms, the Commission considers that joint marketing would:

- restrict the number of competitors in the market;
- result in higher prices and enhance the potential for price discrimination;

- result in a more limited range of terms and conditions being offered to gas purchasers; and
- slow or inhibit the rate at which a more efficient and competitive market may evolve in the future.

19. On the other hand, the Commission accepted that there would also be some features which would inhibit competition in the counterfactual, including the fact that field development and output parameters would be determined jointly by the Pohokura JV parties, but to a lesser extent.

20. Overall, the Commission concludes, on the balance of probabilities, that the Arrangement would lessen competition in the gas market.

Detriments

21. The Commission has compared the Arrangement with the counterfactual and concluded that detriments would arise from:

- a significant, but moderate detriment from a lessening in allocative efficiency;
- a small detriment from a lessening in productive efficiency; and
- a more significant detriment from a loss of dynamic efficiency.

22. The Commission's view is that the overall detriment to the public of New Zealand would likely be significant.

Benefits

23. The benefits are any gain to the public of New Zealand that arise directly from the implementation of the Arrangement.

24. The Commission considers that potential benefits to the public could arise from:

- early development of the Pohokura field;
- lower production and transaction costs (limited); and
- possibly the following:
  - some improvement in operational efficiency;
  - a saving in field facilities, appraisal and design costs (limited); and
  - an increase in the exploration incentive.

25. The Commission considers that potentially the main benefit from the Arrangement would arise from the earlier development of the Pohokura field. The Commission has undertaken what it considers is a conservative assessment of the effects of the fields coming into production one year earlier than in the counterfactual. In this scenario the benefits to the public from early development would be in the order of $47.8 million to $81.9 million, if early development of the field eventuated.

Net Effect

26. The Commission's view is that, on the balance of probabilities, the overall benefit to the public could be substantial and could outweigh the detriments. However, for the Commission to be satisfied about this net effect, it requires certainty that the Arrangement would result in the early production of gas from the Pohokura field, and it needs to ensure the extent of the detriment caused by the loss in competition caused by joint marketing is mitigated. The Commission has accordingly imposed conditions which would achieve this greater certainty.

Conditions

27. The Commission's view is that the following conditions are likely to limit the potential detriments to future competition in the affected markets and ensure that the benefits from the timely development of the Pohokura field are achieved:

- Condition One
  - The Arrangement, as it applies to the carrying out of additional joint marketing and sale of gas for the period after 30 June 2006, is authorised only if the Pohokura field and its associated off-shore, and on-shore, gas production equipment is fully operational before 30 June 2006;
- Condition Two
  - Any assignment by the Applicants or any other party acquiring an interest in the Pohokura JV of any part of their rights or interests in the Pohokura field, must be made conditional on the purchaser(s) obtaining from the Commission a clearance pursuant to section 66, or an authorisation pursuant to section 67 of the Commerce Act 1986; and
- Condition Three
  - The Applicants or any other party acquiring an interest in the Pohokura Joint Venture must not enter into any contract for the sale of gas from the Pohokura field which contains terms or conditions which limit or restrict the resale of the gas to third parties.

28. A full explanation of these conditions is provided in the body of this Determination.

Overall Conclusion

29. The Commission acknowledges that the Arrangement has the potential to deliver the benefits outlined in this Determination, however, the Commission shall not make a determination granting an authorisation unless it is satisfied that the Arrangement to which the Application relates, will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening of competition that would result, or would be likely to result or is deemed to result therefrom. The Commission is not satisfied that the benefits will in fact be delivered so that they would outweigh the lessening of competition that

would result or be likely to result. In these circumstances the Commission would decline to grant an authorisation under s 61(6) of the Act.

30. However, with the imposition of certain conditions, the Commission is satisfied that the Arrangement to which the Application relates, will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening of competition that would result, or would be likely to result or is deemed to result therefrom.

Determination

31. Pursuant to s 61(1)(a) of the Act, the Commission grants authorisation for:

- OMV New Zealand Limited;
- Shell Exploration New Zealand Limited and Shell (Petroleum Mining) Company Limited;
- Todd (Petroleum Mining Company) Limited; and
- any person who becomes a party to the Pohokura joint venture,

to enter into arrangements to jointly market and sell gas produced from the Pohokura field, subject to specified conditions.

INTRODUCTION

32. The Applicants are:

- OMV;
- Shell; and
- Todd.

33. The Applicants are the current parties to a Joint Venture Operating Agreement dated 15 July 1999 relating to Petroleum Exploration Permit ("PEP") number 38459 issued by the Minister of Energy on 1 December 1995 ("the JVOA"). PEP 38459 applies to an area of seabed immediately off the coast to the north east of New Plymouth. A geological structure, containing petroleum reserves, was discovered in that concession which has become known as the Pohokura natural gas field ("the Pohokura field"). The Applicants hold equity in the field:

- OMV 35.9%
- Shell 48%
- Todd 16.1%

34. By letter dated 20 December 2002, the Applicants (at that time Shell, Todd, and Preussag), applied to the Commission under s 58(2) of the Act for authorisation to enter into arrangements to jointly market and sell gas produced from the Pohokura field to which ss 27 and/or 30 of the Act might apply ("the Application").

35. In February this year, OMV Aktien-Gesellschaft ("the OMV group") announced its intention to acquire the international portfolio of Preussag, including four New Zealand permit interests, one of which is Preussag's stake in the Pohokura field. On 14 May 2003, the Commission was notified by the Applicants that Preussag's New Zealand interests were acquired by OMV, a wholly owned subsidiary of the OMV group. Accordingly, the Application for authorisation made by the Pohokura JV parties on 20 December 2002 was amended by substituting OMV for Preussag.

36. The Applicants have sought authorisation which will apply:

- for the life of the Pohokura field[2]; and
- to the respective successors and permitted assigns of any participating interest in PEP 38459 and the JVOA.

37. Although the Applicants do not consider that either s 27 or s 30 of the Act apply to the Arrangement, they recognise that opinions to the contrary are possible and wish to ensure that their acts of joint marketing, joint negotiation with purchasers, and entering jointly into contracts for the sale of natural gas from the field are

[2] Which they expect to be until about 2020.

immune from challenge by parties which consider themselves disadvantaged by such courses of action.

The Arrangement

38. The Arrangement comprises two provisions under which the Applicants propose to:

- discuss and agree on all relevant terms and conditions, including price, quantity, rate, specification and liability for the joint sale of gas from the Pohokura field; and
- negotiate and enter into contracts for the sale of Pohokura gas jointly (i.e. as one seller).

39. The Applicants wish to give effect to those two provisions.

40. The Applicants have not sought authorisation for the content of any contracts for the sale and purchase of natural gas from the field, which they may conclude in future.

41. The Applicants have explicitly excluded the marketing and sale of all petroleum products, other than natural gas,[3] from the scope of their Application for authorisation.

COMMISSION PROCEDURES

42. The Application was registered on 23 December 2002. In accordance with s 60(2)(c) of the Act, Notice of the Application was provided to 38 parties who were considered to have an interest in the Application. In addition, the fact of the Application was advertised in national newspapers on 14 and 15 January 2003.

43. Submissions were requested by 28 February 2003 to assist the Commission in its preparation of the draft determination, and twelve written submissions were received. Additional information and opinions on the issues raised by the Application were obtained during discussions with a number of parties. These parties are listed in Appendix 3.

44. On 16 May 2003, the Commission issued a draft determination and notified its intention to release a final determination on 7 August 2003. In accordance with s 62(2) of the Act, the Commission provided details of the draft determination to the Applicants and interested parties and sought their written submissions on the draft determination. Appendix 3 lists parties from whom written submissions on the draft determination were received.

45. In accordance with s 62(6) of the Act, the Commission determined to hold a conference ("the Conference") in relation to the draft determination across the

[3] For example, oil, condensate, liquefied petroleum gas, and naptha.

dates of 1, 2 and 3 July 2003. Notice of the Conference was provided to the Applicants and interested parties. Six parties made oral submissions at the Conference. The Commission also received a number of supplementary written submissions from these parties during and after the Conference. The parties were:

- The Applicants;
- Petroleum Exploration Association of New Zealand ("PEANZ");
- Shell;
- Contact Energy Ltd ("Contact");
- Natural Gas Corporation Ltd ("NGC"); and
- Ballance Agri-Nutrients (Kapuni) Ltd ("Ballance")

46. On 24 July 2003, the Commission sent a letter to the Applicants and interested parties, seeking submissions on proposed revised conditions on a possible authorisation. The letter noted that due to the further consultation, the determination date would be delayed for two weeks. Submissions on the proposed conditions were received from:

- The Applicants;
- PEANZ;
- Contact;
- NGC;
- Ballance; and
- Genesis Power Ltd ("Genesis").

47. During this investigation, the Commission has also consulted with Mr John Bay ("Mr Bay"), an independent energy consultant based in Auckland. Mr Bay has expertise in the areas of marketing strategy, contract negotiation and dispute resolution, particularly with respect to joint venture agreements, exploration agreements, and gas contracts.

48. In preparing this Determination, the Commission has fully considered and given weight to information and analysis from a wide range of sources. It has:

- reviewed the information and analysis in the Application, including the economic analysis submitted by the Applicants' economic experts;
- sought further information and clarification from the Applicants on a range of points;
- considered submissions from interested parties on the Application;
- interviewed the Applicants and numerous other parties;
- considered submissions from the Applicants and interested parties on the draft determination, including oral presentations at the Conference;
- consulted further with the Applicants and interested parties on conditions;
- sought advice from its own legal, economic and industry experts; and
- conducted its own analysis and modelling.

THE PARTIES

OMV

49. The OMV group is an Austrian-based energy company, historically with government roots, but now with diversified ownership. The OMV Group's core business is exploring for and producing oil and natural gas, with refineries in Austria and in Germany.

50. OMV's New Zealand interests include:

- a 10% ownership of the Maui field;
- a 69% interest in the Maari field (which does not contain natural gas); and
- a joint interest in a number of exploration blocks with exploration companies, including Shell and Todd.

Shell

51. Shell is part of the Royal Dutch/Shell Group of Companies. It ultimately has two parent companies:

- Royal Dutch Petroleum Company, based in the Netherlands; and
- the 'Shell' Transport and Trading Company plc, based in the United Kingdom.

52. These two companies between them hold, directly or indirectly, all interests in the companies which comprise the Royal Dutch/Shell Group of Companies ("the Shell Group"). The Shell Group companies are involved in activities relating to oil and natural gas, chemicals, electricity generation, and renewable resources in more than 135 countries.

53. The primary activities of Shell in New Zealand have included:

- the exploration for, and production of oil and gas, including significant shareholdings in the Maui, Kapuni and Pohokura natural gas fields;
- the operation of Shell brand petrol stations;
- the production and distribution of marine and aviation fuels, lubricants, petrochemicals and detergents; and
- various equity investments, the most relevant of which is in the New Zealand Refining Company ("the NZRC").

54. Shell owns 50% of the shares in Shell Todd Oil Services Limited ("STOS"), the operator of the Maui, Kapuni and Pohokura fields. The remaining 50% of the shares are owned by Todd.

Todd

55. Todd is part of the Todd family's group of companies. Its parent, Todd Energy Ltd is a diversified energy business whose activities include:

- the exploration for, and production of oil and gas. It has significant shareholdings in the Maui, Kapuni, Pohokura, Mangahewa and McKee natural gas/oil/condensate fields and in several exploration joint ventures holding PEPs;
- natural gas retailing through it subsidiary Nova Gas Ltd ("Nova")[4];
- electricity generation;
- electricity retailing through its subsidiaries Bay of Plenty Electricity Ltd and King Country Energy Ltd;
- coal mining; and
- LPG wholesaling.

56. As discussed above, Todd has a strategic agreement with Shell and is a joint owner of STOS, the oil field operator.

Relationship Between Shell and Todd

57. Shell and Todd were parties to a joint venture agreement made in 1955 ("the 1955 JV agreement") under which they agreed to carry out, as a joint venture, prospecting and mining for petroleum in an area including Taranaki, the surrounding areas and offshore from those areas, and production of any petroleum that may be discovered. The agreement included the establishment of STOS.

58. This agreement was replaced on 1 March 2002 by an agreement between the parties entitled the Area of Mutual Interest Agreement ("AMIA"). Shell and Todd sought confidentiality over the details of this agreement and the Commission agreed to that request.

59. The Commission had considered the 1955 JV Agreement in the course of its investigation into the application by Shell for clearance to acquire Fletcher Challenge Energy. In the Decision on that matter[5], the Commission stated that while Shell and Todd could not be regarded as 'one head' in the market, the 1955 JV Agreement did impact on the intensity of the competition between Shell and Todd. The Commission concluded that Todd may have placed some competitive constraint on Shell, but in its analysis it had not relied on Todd to provide fully effective competition on Shell post-acquisition.

60. In meetings with the Commission, written submissions, and at the Conference Shell and Todd submitted there had been material changes in the agreement

[4] Todd previously also retailed gas and electricity through Fresh Start Limited, which was sold to Genesis on 1 June 2003.
[5] Decision 411, 17 November 2000

between the two companies which changed the nature of the relationship between them.

61. The Commission found the submissions helpful to its understanding of the agreement between the two companies. However, because they were made in confidence, and it has not had the ability to assess them fully, the Commission has not reached a final conclusion on their merits. Nor is it necessary to do so for the purpose of making the current Determination because the extent to which the two parties compete against each other is not critical to the Commission's decision in this case. Accordingly, the Commission in this Determination records the fact of the AMIA agreement but does not find it necessary to reach a conclusion on its competitive impact.

Other Relevant Parties

Electricity Generators

62. Approximately 40% of gas produced in New Zealand is used to generate electricity, including cogeneration. The major electricity generators that consume gas include:

- Contact (Otahuhu B, Taranaki Combined Cycle ("TCC")); and
- Genesis (Huntly).

Petrochemical Firms

63. The two principal petrochemical producers are:

- Methanex New Zealand Ltd ("Methanex") (Methanol); and
- Ballance (Ammonia/Urea).

64. For the year ended 30 September 2002, around 42% of all gas was used by the petrochemical sector[6]. However, the proportion for the current year is expected to be significantly less (possibly to around 24%) as Maui supplies to Methanex, New Zealand's largest gas consumer, have diminished substantially.

65. The Commission notes that on 15 May 2003, Mr Bruce Aitken, the Managing Director of Methanex, announced that Methanex was considering mothballing its three methanol plants for several years, unless alternative supplies of gas could be found. At this stage, there is still uncertainty over the future of the Methanex plants.

Major Industrial Users

66. Major industrial users consume in the vicinity of 15% of gas production. Major users include:

[6] The MED Energy Data File, January 2003.

- BHP New Zealand Steel Ltd;
- Carter Holt Harvey Ltd ("CHH");
- Degussa Peroxide;
- Fonterra Cooperative Group Ltd ("Fonterra");
- NZRC;
- Southdown Cogeneration (Mighty River Power Ltd ("MRP")); and
- Todd Energy/Kiwi Cogeneration.

Residential

67. Direct residential use accounts for less than 3% of gas consumption in New Zealand.

Exploration Companies

68. Exploration for hydrocarbons in New Zealand has in the past focused on the Taranaki Basin, however, there have been off-shore sub-commercial discoveries in the Canterbury and Great South basins. Dry gas was discovered on-shore in the East Coast basin in 1998. There are in excess of 50 registered companies with current exploration permits in New Zealand (including Shell, Todd and OMV). Those companies are in the main small to medium sized. Most permits are jointly held by two or more companies.

Production/Reserves Ownership

69. The current gas producers/owners of reserves in New Zealand are[7]:

- Shell companies (Maui, Kapuni);
- Todd companies (McKee, Mangahewa, Maui, Kapuni);
- OMV (Maui);
- Greymouth Petroleum Acquisition Company Limited (Ngatoro, Kaimiro);
- Petroleum Resources Limited ("Petroleum Resources") (Ngatoro);
- Australia and New Zealand Petroleum Limited ("Australia and NZ Petroleum") (Ngatoro);
- Ngatoro Energy Limited ("Ngatoro Energy") (Ngatoro);
- Swift Energy New Zealand Ltd ("Swift") (Rimu, TAWN, Ngatoro);
- Genesis subsidiaries (Kupe);
- New Zealand Oil and Gas Ltd ("NZOG") (Kupe); and
- The Crown (Kupe)[8].

70. STOS operates the McKee, Mangahewa, Maui, and Kapuni fields; NZOG operates the Ngatoro field; Greymouth Petroleum Ltd ("Greymouth Petroleum") operates the Kaimiro field; and Swift operates the TAWN and Rimu fields. Genesis is currently considering applications for a Kupe field operator.

[7] Fields in which the companies have ownership are in brackets.
[8] The Crown has announced its intention to sell its 11% share in Kupe to Genesis.

Transmission

71. Companies involved in high pressure transmission services are:

- NGC; and
- Maui Development Limited ("MDL")[9].

Distribution

72. There are five gas distributors:

- NGC Infrastructure;
- Nova;
- Wanganui Gas;
- Vector/United Networks Ltd; and
- Powerco.

Retail

73. There are six gas retailers:

- NGC (retailing only to large commercial and industrial users);
- Nova;
- Wanganui Gas;
- Contact (wholesaler and retailer);
- Genesis; and
- Auckland Gas Ltd ("Auckland Gas").

Australian Competition and Consumer Commission ("ACCC")

74. The ACCC is an independent statutory authority that administers, in Australia, the Trade Practices Act 1974, the Prices Surveillance Act 1983, and has additional responsibilities under other legislation. The Trade Practices Act covers anti-competitive and unfair market practices, mergers or acquisitions of companies, product safety/liability, and third party access to facilities of national significance. Over the past 25 years the ACCC has been required to make determinations on applications by companies in the gas industry to allow joint marketing of gas. The Commission has consulted with the ACCC and considered previous ACCC determinations in the course of this investigation. These matters are discussed later in this report.

The Victorian Energy Networks Corporation ("VENCorp")

75. VENCorp is a State Government owned entity in Victoria, Australia, funded by energy industry participants. Its key roles are:

[9] MDL is owned by Shell, Todd and OMV.

- independent system operator for the Victorian gas transmission network;
- manager and developer of the Victorian wholesale gas market; and
- system planner providing planning services for the gas and electricity industries.

76. The Commission has consulted with VENCorp on the subject of wholesale gas markets in the course of this investigation.

GOVERNMENT POLICY STATEMENTS

The Statements

77. On 25 March 2003, the Commission received a Government Policy Statement ("GPS") made under s 26 of the Act, entitled "Development of New Zealand's Gas Industry"[10], ("the Gas Industry GPS").

78. On 22 April 2003, the Commission received a further GPS entitled "Government Policy Statement on the Importance of the Pohokura Gas Field for Energy Security", ("the Pohokura GPS").

79. The Gas Industry GPS sets out the Government's policy for the development of New Zealand's gas industry, and its expectations for industry action. It states that the expected end of the life of the Maui gas field signals the need for significant changes in gas supply arrangements, and that with production from an increased number of smaller gas fields there is a requirement for more sophisticated pro-competitive market arrangements, including improved arrangements for gas balancing and reconciliation.

80. The Gas Industry GPS also sets out a number of industry-led solutions that the Government wishes to see put in place, and asks that the industry participants and consumers report to the Minister of Energy each quarter on progress. The GPS states that the Government expects that efficient industry arrangements[11] will be in place by December 2004, and that if progress towards the measurable milestones is unsatisfactory, the Government will consider regulatory solutions.

81. The Pohokura GPS sets out the Government's views on the importance of the development of the Pohokura field to help remove uncertainty about New Zealand's medium-term energy security including, facilitation of early decisions on new electricity generation investment. It states that gas from the Pohokura field needs to be successfully marketed and in production in a timeframe and manner that ensures that national energy security and economic growth interests are met. It adds that this is particularly important to ensure that new electricity

[10] Statement to the Commerce Commission of Economic Policy of the Government: Government Policy Statement – Development of New Zealand's Gas Industry 25 March 2003.
[11] The Government invited the industry to establish a governance structure and work programme to develop arrangements with respect to production and wholesale markets, transmission and distribution networks, retail markets and gas safety.

generation projects can be built in a timely manner to meet growing electricity demand.

The Applicants' Submission

82. The Applicants have submitted that the Commission is required to give genuine attention and thought to the Pohokura GPS. The Applicants referred to *New Zealand Co-operative Dairy v Commerce Commission* [1992] 1 NZLR 601, where the High Court held that such statements "must be given genuine attention and thought, and as such weight as the tribunal considers appropriate". The Applicants noted that the Gas Industry GPS was broad, relating to gas generally, and that the Pohokura GPS was specific to the Pohokura field.

83. Ballance submitted that the Commission "could not avoid giving the Pohokura GPS *significant* weight" [12]. Ballance submitted that the Commission should not regard the Pohokura GPS as the determining economic policy for the gas industry, particularly in circumstances where the Government has also issued the Gas Industry GPS. It added that in its view the Pohokura GPS has tended to emphasise short term over long term goals with a focus on electricity generation.

The Commission's Conclusions

84. The implications of the Commission's consideration of GPSs in terms of s 26 of the Act have previously been considered by the Commission and the High Court.[13] The Commission has noted that:

> … having regard to the general policy discretion in the Act to promote competition s. 26 may be used to advise the Commission of Government policy or polices or to be more specific in relation thereto. It is not to influence or determine the decisions which the Commission must make. Thus, fully preserving the discretions given to the Commission in the Act, the Commission is required only "to have regard to" such statements in reaching its decisions.[14]

85. The Commission, in reaching its Determination, and throughout its consideration of the various submissions and issues raised during this process, has given careful consideration to, and has had regard to both the Gas Industry GPS and the Pohokura GPS. The Commission notes and recognises that although the Gas Industry GPS sets out the Government's policy for the future development of New Zealand's gas industry and the Government's wish to see further development of gas market arrangements, the Pohokura GPS sets out the need to ensure early development of the Pohokura field.

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[12] Ballance's submission dated 6 June 2003, pp 1-2.
[13] Re New Zealand Kiwifruit Exporters Association (Inc) – New Zealand Kiwifruit Coolstorers Association (Inc) (1989) 2 NZBLC (Com) 104,485.
[14] Decision 221, paragraph 3.20.

86. The Commission is of the view that it is required, in terms of s 26 of the Act, to have regard to relevant GPSs in reaching its decisions[15]. The Commission may not ignore a relevant statement. It must give it genuine attention and thought, and such weight as the Commission considers appropriate. During its consideration of this Application, the Commission has given careful consideration to, and has had regard to, the two statements transmitted to it by the Government.[16]

Progress on the Gas Industry Developments

87. In response to the Gas Industry GPS the industry formed the Gas Governance Establishment Group ("the GGEG"), now known as the Gas Industry Steering Group ("the GISG"), to facilitate the establishment of the work programme and structures referred to in the GPS.

88. On 28 February 2003, the GGEG wrote to the Minister of Energy and advised that there was an emerging consensus within the group for the way in which the industry would address the range of issues before it. A work programme had been adopted for five key work streams as follows: wholesale level gas issues; access to transportation; retail reconciliation and switching; gas flow management and contingency planning; and consumer protection. The letter concluded that the gas industry was committed to resolving the matters in an effective and timely manner. As of August 2003, the Commission understands that the discussions between the Minister of Energy and the GISG are ongoing.

INDUSTRY BACKGROUND

89. The New Zealand gas industry has largely been privatised over the past 20 years. Natural gas is a crucial source of energy, supplying approximately 29% of New Zealand's total primary energy use.

90. The industry structure is made up of several gas fields owned by several producing companies, several wholesalers, two pipeline transmission companies, and several distributors and/or retailers.

91. Production of gas has been dominated by the Maui field, since first gas flowed from the field in 1979. The Maui producers do not sell directly to the wholesale market but to the Crown, at a price locked in under a long-term contract. The Crown on-sells the gas to downstream purchasers (NGC, Contact and Methanex) at prices that are low relative to competing supplies. The terms of the Maui gas contract are set out in the Maui White Paper that was published in 1973.

92. The following sections set out in more detail information on:

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[15]The term "have regard to" has been considered by the courts on numerous occasions. New Zealand Co-operative Dairy Company Ltd v Commerce Commission [1992] 1 NZLR 601; Te Runanga O Raukaw Incorporated v The Treaty of Waitangi Fisheries Commission (unreported), 14 October 1997; Foodstuffs (South Island) Ltd v Christchurch City Council [1999] NZRMA 481.

[16] The Gas Industry GPS and the Pohokura GPS can be found in Appendices 1 and 2.

- the ownership of and production from gas fields;
- the licensing regime and exploration;
- the consumption of gas;
- the transmission and distribution of gas;
- estimated gas reserves and projections for future discoveries;
- the wholesale gas market;
- reasons for joint venture operations in the industry; and
- gas balancing**.**

Ownership of and Production from Natural Gas Fields in New Zealand

93. Currently, gas is entirely produced in the Taranaki region, where eleven fields produce oil and gas (including condensate and naptha). The ownership of natural gas fields for which petroleum mining licences have been issued, together with the natural gas production of each, is shown below in Table 1.

Table 1
Ownership of, and Production From, Natural Gas Fields for Year Ended September 2002*

Name of field	Ownership (%)	Gross Natural Gas Production (PJ)	Gross Gas Produced (%)
Maui	Shell subsidiaries: 83.75 Todd subsidiaries: 6.25 OMV 10.00	179.10	75
Kapuni	Shell subsidiaries 50.00 Todd subsidiaries 50.00	27.46	11.5
TAWN	Swift 100.00	13.13	5.5
Mangahewa	Todd 100.00	10.03	4.2
McKee	Todd 100.00	6.45	2.7
Ngatoro	Greymouth Petroleum 29.785 Swift 29.785 Petroleum Resources Ltd 20.43 Australian and New Zealand Petroleum Ltd 15.00 Ngatoro Energy 5.00	1.67	0.7
Kaimiro***	Greymouth Petroleum 100.00	.48	0.2
Rimu	Swift 100.00	.48	0.2
Kupe	Genesis subidiaries 70.00 NZOG 19.00 The Crown 11.00	No production	
Total		238.8	100

* The Ministry of Economic Development Energy Data File, January 2003.
**A subsidiary of Indo-Pacific Ltd
*** Kaimiro figure includes Moturoa field for October 2001

The Pohokura Field

94. The Pohokura condensate and gas field lies in the offshore exploration block PEP 38459. It is approximately 16km long by 5km wide extending offshore in a north-west direction, from close to the Methanex Motonui site near Waitara in North Taranaki.

95. The field was discovered in February 2000 by the joint venture comprising, at that time, of Fletcher Challenge Energy ("FCE"), Preussag, Shell and Todd. The field was successfully appraised in May 2000 and a 3D seismic survey was conducted over the entire field late in 2000.

96. The field contains gas and associated liquids. The Pohokura JV parties intend to recover the liquids jointly, but sell those products separately. This is a common approach to the sale of such products around the world.

97. Initially the field was estimated to hold reserves at a level of 1000 petajoules ("PJ"), making it by far the largest known undeveloped gas resource in New Zealand. While the reserves in the field have not yet been determined precisely, based on current estimates provided by the Applicants, the Commission has made an assumption for the purposes of this Determination that an approximate figure for recoverable gas reserves may be 750 PJ. If the price of gas was $4/GJ, which the Commission believes is a conservative figure, the reserves value would be in the order of $3 billion. In addition, the Commission understands that the condensate and LPG in the field would have a value of around $[ ].

98. Development costs for the Pohokura field could be up to $[ ], depending on the number of platforms decided on and the size of the associated production station.

<u>Previous Statements by the Applicants</u>

99. The Commission notes that two years ago in the context of consideration of the application to the Commission by Shell for clearance to acquire FCE, both Shell and Todd advised the Commission that separate marketing of gas from the Pohokura field was possible and practical, and it was what was likely to happen. These views were set out in a number of documents provided to the Commission. A sample of some of those comments are set out below.

100. In particular the minutes of the Pohokura Offtake Committee of 4 September 2000 state:

> Todd expected to take, at least in part, its equity entitlement to Pohokura product (LPG and gas). It was agreed that the Committee would undertake work to develop and implement a gas offtake agreement to permit this.

101. On 4 October 2000 and 6 November 2000, Shell's lawyers advised the Commission:

> These provisions imply that, in contrast to gas from most fields that have been developed in New Zealand, "equity selling" is intended to be a feature of the marketing arrangements in respect of Pohokura gas. Equity selling arrangements have not previously been put in place for major fields such as Maui or Kapuni for historical reasons relating to the particular field …

and

> If the joint venture partners of Pohokura agree to equity selling, an associated gas balancing agreement (typically making an annual adjustment to the gas taken as against the relevant equity shares in the field) will be required. Such arrangements ensure that each joint venture party is able to recover its share of recoverable reserves in the event that one party "oversells" its entitlement…

and

> Further, while the "take in kind and separately dispose" arrangement contemplated by clause 10 of the Pohokura Joint Venture may be unusual in the New Zealand context, this is not the case elsewhere. In Shell's international experience, just about every possible kind of arrangement may be employed to bring into production a new field, depending largely on the composition and structure of the particular joint venture, the volumes involved, the liquidity of the local markets (gas and liquids) and the applicable laws…

and

> Preussag may have no present plans to take equity gas, but this in fact is what the JV envisages. In practice, Todd will no doubt seek to take equity gas and Shell has every intention of doing so …Todd has already signalled its intention to take equity gas…

102. On 6 September 2002, the Applicants signed an Agreement to Amend the PEP 38459 JVOA. [

]

103. In respect of the current Application, the Commission questioned the Applicants as to their apparent change in view about the feasibility of separate marketing of gas from the Pohokura field.

104. In response, Todd claimed that its comments on [

] It also claimed that its previous statements reflect the fact that at the time the statements were made, no work had been done, or understanding developed, about how separate marketing might be achieved.

105. In its response, Shell said, among other things, that the previous comments were made at a time when discussions among Pohokura JV parties regarding the details of field development were comparatively embryonic; in an environment where [

] and reflected a disposition to market gas separately – the prospect of being able to arrange separate Shell-only gas deals was at the time, and remains, commercially sensitive.

106. Shell said that its current views on the viability of separate marketing are based on the following factors: the benefit of an additional two years considering the feasibility of separate sales; a more developed sense of the commercial environment within the Pohokura JV and the complexities involved in implementing such arrangements; and by reference to recent Australian research in which the prospects of separate selling are considered.

107. At the Conference, Shell provided a separate submission, in part to explain its change of view regarding separate marketing of gas. Shell submitted that at the time of the FCE acquisition clearance application, it had underestimated the difficulties of separate marketing. Shell also argued that there was some confusion in the understanding of terminology used at that time, and that references to "separate sales" and "equity gas" were used inappropriately when, in fact, the arrangements being contemplated constituted "joint sales" back to individual JV parties and not to downstream purchasers. The Commission acknowledges Shell's submissions. The Commission does note, however, that at the time of the FCE acquisition, the ACCC had already made determinations on the North West Shelf and Mereenie Producers applications to jointly market gas (both determinations are discussed in paragraphs 166 to 170), in which separate marketing was discussed in depth. Shell was also in a position to leverage off its experience in joint venture gas marketing in Australia. The Commission considers that the same information that informed Shell's current view on separate marketing, was available to Shell at the time of the FCE acquisition.

108. The Commission notes Shell and Todd's explanation of the change in their perception of the merits of separate marketing of gas. At the time of making this Application, the parties should have addressed this change. In particular, the parties should have provided an explanation of why the previous statements were no longer valid.

The Maui Field

109. The background of the Maui field is discussed in Decision 408[17]. Of particular interest to this Determination is the fact that Maui economically recoverable gas reserves are now anticipated to run down sooner than originally expected.

110. Gas from the Maui field is currently sold under Crown negotiated contracts to NGC, Contact, and Methanex.

[17] Decision 408, Shell Exploration Company B and Fletcher Challenge Energy, paragraphs 97-102.

The Maui Re-determination

111. On 1 October 1989, the Crown estimated the Economically Recoverable Reserves ("the ERR") of Maui at 3,003 PJs. There were no official changes or a re-determination of the ERR from 1989 to 2001. In 2001 MDL re-estimated the ERR and provided notice to call for a re-determination on 30 November 2001. The subsequent re-determination was undertaken by independent experts Netherland Sewell and Associates International. ("Netherland Sewell"). On 7 February 2003, Netherland Sewell announced that as at 1 January 2003 the Maui reserves had been re-determined as having 352 PJ remaining. The total revised ERR of 2,582 PJs is 421 PJs less than that previously determined in 1989.

112. It is likely that Maui will contain additional gas that is not ERR defined gas, although likely estimates of the volume of that gas and whether it would be economic to recover is unknown.

113. Earlier this year, the Minister of Energy, Hon Pete Hodgson said about the Maui re-determination[18]:

> As off-take from Maui decreases, gas production will shift to multiple smaller fields. The largest of these, Pohokura, is currently expected to begin production in early 2006, but fields such as Kapuni, TAWN, McKee, Mangahewa, Rimu and Kupe are also likely to play important roles.
>
> Preliminary Ministry of Economic Development analysis shows that for the next few years some existing thermal stations may switch to coal or oil as a fuel source. This is because Maui is running down earlier than originally anticipated.

114. The Commission also notes that recently there have been a number of announcements about efforts to secure additional electricity generation, and some of these comments have been made following the announcement of the lower than anticipated Maui reserves. These include:

- a report that Contact will build and operate a new Crown-owned dry year standby oil-fired generation plant, with 155 megawatts of generation capacity, on Contact's Whirinaki site in the Hawkes Bay. Contact announced that the plant will be available for use by 1 June 2004[19]. Contact also announced it intends to re-commission the oil firing equipment at its New Plymouth Power Station[20];
- a report that Genesis is seeking additional coal as the fuel source for its Huntly Power Station, and that its plans for a new gas-operated turbine for the Huntly plant are on hold while the company looks to secure a gas contract.[21];
- an announcement by Meridian that it was investigating the Lower Waitaki River for joint irrigation and hydro generation development - Project Aqua.

[18] MED media release, 7 February 2003.
[19] Contact media release, 29 July 2003.
[20] Contact media release, 20 March 2003.
[21] The Independent, 9 April 2003.

> Preliminary investigation indicates there is potential for generation of up to 3200 GWh per year from six power stations on the river.[22]

The Kapuni Field

115. The Kapuni field, discovered in 1959 by a Shell-BP-Todd consortium, is located onshore in Taranaki, 85 kilometres from New Plymouth. It is the largest onshore field, and second largest gas/condensate field in New Zealand. The field is now owned by Shell and Todd.

116. The background to the Kapuni field is discussed in detail in Decision 408[23]. Kapuni has around 383 PJ[24] of reserves remaining and comprised approximately 11.5 % of New Zealand's gross gas production in the year ended September 2002[25].

117. Kapuni gas is 50% contractually committed to NGC. The other 50% goes to Shell and Todd which jointly sell the gas principally to Nova, Kiwi Cogeneration and Taranaki By-Products.

The TAWN Fields

118. The TAWN fields comprise the Tariki, Ahuroa, Waihapa and Ngaere fields. They are onshore fields located in reasonable proximity of each other in eastern Taranaki and were discovered by Petrocorp between 1985 and 1993. The fields produce both gas and condensate.

119. In January 2002, Swift purchased Shell subsidiary Southern Petroleum (Ohanga) Limited, which had a 96.7% interest in the fields. Swift, the operator of the field recently bought the remaining 3.24% stake in TAWN from Bligh Oil and Minerals New Zealand Ltd.

120. Tariki and Ahuroa have around 68 PJ[26] of reserves remaining, while Waihapa and Ngaere are now largely depleted. Collectively they comprised approximately 5.5% of New Zealand's gross gas production in the year ended September 2002[27].

121. All gas from the TAWN fields is currently sold to Contact.

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[22] Meridian media release, April 2001
[23] Decision 408, paragraphs 103-106.
[24] The MED Crown Minerals website. As at 30 June 2002. The figure is quoted at 50% levels (proven plus probable).
[25] The MED Energy Data File, January 2003.
[26] The MED Crown Minerals website. As at 30 June 2002. The figure is quoted at 50% levels (proven plus probable).
[27] The MED Energy Data File, January 2003.

The Mangahewa Field

122. The onshore Mangahewa field, located around 20 kilometres east of New Plymouth, was discovered in 1997, and is 100% owned by Todd. The field comprised 4.2% of New Zealand's gross gas production in the year ended September 2002[28]. Remaining reserves are approximately 103 PJs.[29]

123. Gas from the Mangahewa field is currently sold to Methanex.

The McKee Field

124. The McKee field is New Zealand's second largest onshore field, located inland from Stratford. It was discovered in 1979 by Petrocorp and is now owned by Todd.

125. The field comprised 2.7% of New Zealand's gross gas production in the year ended September 2002[30]. Remaining reserves are approximately 41 PJs.[31]

126. All gas from the McKee field is currently sold to Methanex.

The Kaimiro Field

127. The Kaimiro field, discovered in 1981, is located in north Taranaki and is owned by Greymouth Petroleum. The field comprised only 0.2% of New Zealand's gross gas production in the year ended September 2002[32]. Remaining reserves are are negligible.

128. Kaimiro gas is currently sold to Contact.

The Rimu Field

129. The Rimu field was discovered by Swift in 1999 near Hawera on the southern Taranaki coast and is 100% owned by Swift. Production from the field is small, comprising 0.2% of New Zealand's gross gas production in the year ended September 2002.[33] Remaining reserves are approximately 41 PJs.[34]

130. Gas from the Rimu field is currently sold to Genesis.

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[28] idem.
[29] The MED Crown Minerals website. As at 30 June 2002. The figure is quoted at 50% levels (proven plus probable).
[30] The MED Energy Data File, January 2003.
[31] The MED Crown Minerals website. As at 30 June 2002. The figure is quoted at 50% levels (proven plus probable).
[32] The MED Energy Data File, January 2003.
[33] idem.
[34] The MED Crown Minerals website. As at 30 June 2002. The figure is quoted at 50% levels (proven plus probable).

Licensing Regime and Exploration

131. The Crown Minerals Act 1991 governs the allocation and management of rights to explore for and extract petroleum products.[35] The Act provides that all petroleum existing in its natural untapped state within the territory of New Zealand and extending 200 miles offshore is the property of the Government.

132. Crown Minerals (a division of the Ministry of Economic Development ("the MED")) issues permits to prospect, explore or mine petroleum under the Crown Minerals Act. Firms may themselves apply for an exploration permit or may acquire an interest in an existing permit.

133. Three types of permit may be obtained:

- Petroleum Prospecting Permits;
- Petroleum Exploration Permits; and
- Petroleum Mining Permits.

134. Petroleum Prospecting Permits are for general investigative studies over large areas. More than one permit may be issued over the same area. Permits are generally granted for one year.

135. Petroleum Exploration Permits ("PEPs") are the main permit mode for exploration. They are granted for undertaking work to identify petroleum deposits and evaluate the feasibility of mining any discoveries made. Exploration includes geological, geochemical and geophysical surveying, exploration and appraisal drilling and testing of petroleum discoveries. These permits give exclusive rights, and are usually issued for a five year period with a right of renewal for a further five years.

136. Petroleum Mining Permits are granted for the development of a petroleum field to allow the extraction and production of petroleum. A permit holder has the right to any petroleum discovered, subject to the conditions contained in the permit. These would include royalty conditions and the requirement to undertake a defined programme of work.

137. The current level of exploration is described by Crown Minerals as high, with 14 wells drilled in 2002, and several discoveries made in the last three years (including the Pohokura, Rimu, Kauri, Surrey and Kahili fields).[36] Currently in New Zealand there are 69 exploration permits and 11 mining permits operating. This year there will be bidding rounds held over the Deepwater Taranaki Basin, Onshore and Offshore Canterbury Basin, and Onshore and Offshore North Taranaki basin.

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[35] Prior to 1991, the regime used licences rather than permits. These were Petroleum Prospecting Licences (PPL) and Petroleum Mining Licences (PML).

[36] Crown Minerals Website: www.med.govt.nz/crown_minerals/petroleum/overview.html

138. Shell recently announced its intention to reduce the level of exploration funding in New Zealand over the next 12 months. Shell New Zealand's chairman, Dr Lloyd Taylor, cited the failure of the company to "discover material new hydrocarbon reserves, nor define new opportunities for exploration that are comparable to those available elsewhere in Shell's global portfolio." Dr Taylor also noted that in the last year, Shell has divested exploration acreages "to parties to whom the opportunities are material."[37]

Consumption of Natural Gas in New Zealand

139. The total net production, including transmission losses, of natural gas in New Zealand for the year ended September 2002 was 233.17 PJ.[38]

Table 2
Natural Gas Consumption by Sector for Year Ended September 2002*

Sector	Proportion (%)
Electricity Generation	40.5
Methanol production	38.9
Industrial and commercial	15
Ammonia Urea production	2.8
Residential	2.7
Transport	0.1
Total	100

* The MED Energy Data File, January 2003.

140. The Methanol and Ammonia/Urea producers used around 42% of New Zealand's natural gas during the year ended September 2002. Crude methanol is produced from natural gas and then distilled into high grade methanol.

141. Around 40% of New Zealand's gas was used for electricity generation. Contact (Otahuhu B and Taranaki Combined Cycle) and Genesis (Huntly) are the main electricity generators in New Zealand that use gas.

142. The remaining 18% of New Zealand's gas use was reticulated throughout the North Island through a high-pressure pipeline system to major users, and to gas utilities for distribution to other industrial users and to the commercial and residential sectors.

143. With the increased economic growth in New Zealand during the last decade, the demand for electricity has increased. However, with the lower than expected gas reserves in the Maui field and the absence of an immediate replacement for Maui, New Zealand has a situation where at the prevailing prices, there is excess demand for gas.

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[37] Shell New Zealand media release, 6 August 2003.
[38] The MED Energy Data File, January 2003, p.89.

144. In addition, new sources of gas are likely to be sold in long-term contracts to electricity generators or petrochemical manufacturers, with little uncommitted gas being offered to the market. This scenario is even more likely in the current environment with Maui supply reducing faster than it can be replaced by gas from new supply sources.

Transmission and Distribution of Gas

145. There is an extensive gas reticulation system in the North Island comprising 2600km of high-pressure gas transmission pipelines, and low-pressure distribution systems in most cities. NGC operates the gas transmission network and owns approximately two-thirds of New Zealand's high pressure gas pipelines. MDL owns the remaining third - the Maui pipeline - which currently only transmits gas to be sold under the Maui contract.

Reserves of Natural Gas

146. Developed and undeveloped reserves are shown in Table 3. The Government requires disclosure of reserve estimates on a biannual basis for producing wells. The values in Table 3, although outdated to an extent, are the best available to the Commission.

Table 3
Remaining Reserves of Natural Gas* at 1 June 2002 (Both Developed and Undeveloped)**

Field	Reserves (PJ)
Pohokura	750
Maui	567***
Kapuni	383
Kupe	307
Mangahewa	103
TAWN	68
Rimu	41****
McKee	41
Ngatoro	4
Kaimiro	negligible
Total	2249

* The figures are based on reserves quoted in billion cubic feet ("bcf") on the MED Crown Minerals website. To calculate a figure in PJ, each figure was converted to million cubic metres and then multiplied by the average annual gross calorific values for gas from each field (from the MED Energy Data File, January 2003). The MED reserves figures were quoted at 50% (proven plus probable) probability of recovery levels.
** The Commission notes that new fields (such as Surrey and Kahili) are also being explored and developed. This table does not include developments since 1 January 2002.
*** Includes the ERR (352 PJ) plus a Commission estimate of reserves recoverable outside of the contract price (215 PJ).
**** Conversion from bcf to PJ provided to the Commission by the MED at 1 PJ = 1.0546 bcf.

Future Gas Discoveries

147. The number and size of future gas finds is impossible to determine with any precision. The MED is soon to publish an updated version of its report entitled New Zealand Energy Outlook to 2020. In its report it will be using the following assumptions:

- for years 2008-2013 an average of 35 PJ of new gas per annum will be brought into production; and
- for years 2014 onwards an average of 60 PJ of new gas per annum will be brought into production.

148. The Commission notes that these figures are the MED's best estimates based on its current information.

149. The Commission also notes that even when additional sources of gas are discovered, there is usually a considerable time delay before the new gas is brought into production. As an example, the Pohokura field was discovered in 2000 but first production is not expected until February 2006.

Sales of Gas

150. New Zealand's wholesale natural gas market is predominantly one in which gas is sold through contracts for supply over varying lengths of time. There is currently no active spot market where producers can meet demand on a short-term basis at market prices.

151. However, the Commission notes the following from the Gas Industry GPS:

> The Government expects the industry, including consumer representatives, to develop arrangements with respect to:
>
> Production and Wholesale Markets
>
> - The development of protocols, standards and conventions applying to wholesale gas trading, including quality standards, balancing and reconciliation.
> - The development of a secondary market for the trading of excess and shortfall quantities of gas.
> - The development of capacity trading arrangements.

152. The Gas Industry GPS states that the Government expects that efficient industry governance arrangements will be in place by December 2004 and if progress towards measurable milestones is unsatisfactory, it will consider regulatory solutions. During a speech earlier in the year[39] the Minister of Energy said:

> The GPS clearly sets out the arrangements the Government expects to be put in place.

[39] Speech by Hon Pete Hodgson on 31 March 2003 to Utilicon Conference, Auckland.

> I want to say at the outset, though I hope not threateningly, that the Government expects much faster progress on the gas GPS than we have had on the electricity industry GPS.

Joint Ventures and Petroleum Exploration and Production

153. Risk is inherent in the process of exploration for petroleum and natural gas. The Commission has been informed that, in general, the average geological success rate of frontier basin exploration wells worldwide is between 1 in 10 and 1 in 15. Offshore wells in New Zealand cost about NZ$30 million and onshore wells up to about half that amount.

154. Even though companies involved in petroleum exploration and production are often very large, cooperative arrangements are necessary to mitigate the high risk sunk costs which are associated with these activities.

155. The risk associated with producing oil and gas does not end with a commercial discovery after exploration. Other risks are:

- reserves risk, as has been shown by the Maui re-determination. Owners of a field invest in production equipment (about NZ$[ ] in the case of the Pohokura field) and expect a certain return on that investment from sales which may not necessarily occur due to miscalculations on the field reserves;
- the petroleum reservoir may not perform as anticipated due to unexpected geological conditions leading to lower than anticipated production rates and the inability to extract all the existing reserves. This appears to be the situation currently pertaining to the Rimu field; and
- market risk whereby producers may determine a field to be an economic discovery based on certain prices of oil and particularly gas. Such prices are subject to the risk of later discoveries of new fields which are able to introduce more gas into markets, perhaps at lower prices. Alternatively, one or more large consumers may depart from the market. Examples of this kind of risk in the New Zealand context are the potential for a large Maui sized natural gas field off the Wairarapa coastline, currently being explored by Westech Energy Ltd ("Westech")[40] and the potential for Methanex to cease operations in New Zealand.

156. Because of the length and complex nature of joint venture agreements, they have a high cost of negotiation (and re-negotiation if a commercial discovery is made and production considerations arise), and potentially arbitration or litigation. Nevertheless, the oil and gas exploration and production industry worldwide has adopted joint ventures to efficiently manage the risks described.

157. Major exploration and production of oil and natural gas in New Zealand has been, and is, carried out by joint ventures. The original Maui and Kapuni discoveries were made, and production commenced, by joint ventures between Shell, British Petroleum and Todd.

[40] Although no drilling has yet taken place.

158. That some of New Zealand's smaller mature gas fields are now in sole ownership, as a result of equity transfers due to strategic and competition law reasons,[41] is indicative of the declining risk of ownership of those fields once the discovery has been made, production equipment engineered and installed, and long-term gas sale contracts obtained.

Gas Balancing

159. In a petroleum field joint venture, where gas is separately sold, gas imbalances occur when a joint venture party does not receive its share of gas in proportion to its interest in the field. 'Over-lift' occurs when a party sells more than its proportionate share of gas production. 'Under-lift' occurs when a party sells less than its proportionate share. Gas imbalances between joint owners of petroleum fields are common, and to manage these imbalances, Gas Balancing Agreements ("GBA"s) are used. The purpose of a GBA is to ensure that where parties either over-lift or under-lift, a mechanism is in place to address that imbalance.

160. Where gas is jointly sold, there is no need for a GBA between the producers because the parties share the revenue from the joint gas sales in proportion to their equity share of gas in the field.

161. The issues which must be resolved in a GBA include:

- ensuring that the amount of gas that each party draws off is proportionate to its equity share in the field at a particular time (eg over the period of a month);
- ensuring that each party, over the life of the field, draws gas in proportion to its equity share in the field;
- deciding for how long imbalances will be permitted;
- deciding how an under-lifting party will make up its proper share. These details include whether an under-lifting party is permitted to make up during peak consumption seasons, and the maximum reduction of off-take required of an over-lifting party while another party's uplift is occurring;
- deciding how and if the parties can balance in-kind – ie can the over-lifting party repay the under-lifting party with gas from another field, or through the transfer of entitlement to remaining reserves; and
- the potential for cash compensation if an imbalance cannot be rectified in-kind.

162. GBAs can be complex and susceptible to disputes. However, based on standard industry practise, efficient arrangements are dependent to a large extent on an effective spot market and a gas market with depth, or agreements between the parties as to how any disputes will be overcome. The Commission notes that various members of the AIPN advise that in order to overcome some of these

[41] For example, FCE's decision to sell all its interests to Shell and the subsequent divestment of some of its oil and gas field assets by Shell as part of its application to the Commission for clearance for the transaction to proceed.

difficulties, standard form GBAs have been created by petroleum industry associations (in particular, Canada and the United States). The AIPN also has its own model form agreements which are considered industry standards and upon which most current negotiations are based.

THE MED REVIEW OF THE NEW ZEALAND GAS SECTOR

163. In October 2001, ACIL Consulting and Farrier Swier prepared a report commissioned by the MED into various aspects of the gas industry. That report addressed various issues, including:

- the economic efficiency of the gas supply chain;
- inter-fuel competition;
- efficiency, and environmental externalities;
- regulation, asset valuation and multi-utilities; and
- take-or-pay contracts, their possible renegotiation, and hydro spill.

164. The ACIL report was released and submissions sought on its findings. Partly as a result of further consultation, and the report itself, the MED has announced the Government's intentions to create a more efficient gas industry. These intentions were set out in the Gas Industry GPS.

THE AUSTRALIAN EXPERIENCE

165. In the Application, the Applicants made a number of references to the situation in the Australian gas markets, and argued that some comparison should be drawn between what had occurred in Australia and the current New Zealand situation. The Commission notes that in recent years there have been various developments in the Australian gas market and that it is useful to background the Australian experience relevant to this Application. This background includes discussion of:

- previous applications to the ACCC by joint venturers for authorisation to jointly market and sell gas;
- the Council of Australian Governments ("CoAG") Energy Market Review;
- gas marketing at the Yolla and Geographe/Thylacine fields;
- VENCorp and the Victorian gas market; and
- the current views of the ACCC.

ACCC Decisions

ACCC's Determination of the North West Shelf Project – 29 July 1998

166. As background, the North West Shelf Project ("NWS") participants made an application for authorisation to discuss and agree together the common terms and conditions, including price, at which gas produced together by the joint venture

would be offered to customers, and to discuss and agree the terms for marketing and selling of such gas.

167. The ACCC made a number of comments in its decision that were useful in understanding why it came to its decision. These included:

> - …separate marketing, where possible, is the preferred method of gas supply contracting. By having a number of separate marketers, the Commission would expect a more competitive market and the resultant benefits of lower prices and greater supply options being made available to final consumers. (p.iv)
>
> - While it is impossible to be prescriptive about exactly what market features need to develop before separate marketing would become viable in WA, the greater the number of the following list of market developments that are introduced, the greater the likelihood that separate marketing will be viable:
>
> - a significant increase in the number of customers;
> - the entry of new competitive suppliers;
> - additional transportation options;
> - storage;
> - the entry of brokers/aggregators;
> - the creation of gas-related financial markets; and
> - the development of significant short term and spot markets. (p.v)
>
> - …the current infeasibility of separate marketing in WA should not be taken to infer that separate marketing is not viable in other gas markets in Australia. (p.v)

168. The ACCC placed a seven year limit on the authorisation and stated that at the end of that period, it expected the market to have developed and changed in ways it could not fully predict or anticipate.

ACCC's Determination of the Mereenie Producers – 7 April 1999

169. The Mereenie Producers lodged an application for authorisation relating to the joint marketing and sale of gas produced under the Mereenie gas sales agreement.

170. The ACCC again made a number of comments in its decision that were useful in understanding its reasons for granting authorisation:

- it repeated its views from the NWS authorisation in stating that separate marketing is to be preferred to joint marketing from a competition perspective, and that the key issue was whether separate marketing was feasible;
- it rejected the assertion from the applicants that gas jointly produced by joint venturers would invariably be sold on common terms to purchasers, including price:

> The experience in other countries was evidence that separate marketing is not incompatible with joint production, and suggests that the feasibility of separate marketing

is more directly related to the operation of the market overall, rather than the production arrangements.[42]

- as in the NWS decision, it placed a limit on its authorisation. The term would be until the earlier of 1 July 2009, or completion of delivery of 67.5 PJ of gas.

171. In submissions on the draft determination and at the Conference the Applicants argued that the ACCC authorities deserve to be given more weight and attention, and noted that the consistency of approach of the ACCC is striking.

172. The Applicants have argued that both the NWS and Mereenie Producers cases related to extensions to existing developments and were not greenfield developments like Pohokura.

Council of Australian Governments – Energy Market Review

173. In 2002, the Council of Australia Governments ("CoAG") as part of its Energy Policy Framework, agreed to an independent review of future energy market directions and priorities, and the issue of separate marketing was considered in a report by KPMG commissioned by the Energy Market Review, and in the final report of the review, *Towards a Truly National and Efficient Energy Market.*

174. Some of the key points reached in the KPMG report included:

- …large high capital greenfield new project type developments would be significantly hampered if forced to separately market production…therefore it is not usually likely to be feasible. We have noted that separate marketing for some other types of greenfield developments could be both practical and achievable. (p.8)

- Joint marketing by joint ventures is unlikely to assist competition between fields and basins where there is substantial cross ownership. (pp.10-11)

- It could be generally observed that separate marketing of gas is likely to be feasible where the risk to the producer/developer of finding buyers at a competitive price is small. (p.23)

- …not all the features of a mature market need to be present for separate marketing to be feasible. If they were, separate marketing itself would probably only be of academic interest, as a high degree of competition would already be achieved. (p.24)

- …the process of seeking to define relative market maturity simply by reference to lists of attributes can be akin to self-fulfilling prophecy. For example, the existence, of say, secondary markets, intermediary trading, spot markets and financial hedges are outcomes of a mature market, rather than prerequisites for separate marketing. (p.24)

- The importance of timing for a large new project gas development cannot be overstated. Separate marketing for a large new project tends to erode the capacity of individual venturers to reach common and timely accord on matters as key as the

[42] p.33.

project development plan itself. The time taken for each venturer to secure markets also puts at risk the project development. (p.36)

- For large new greenfield project gas developments to take place, the existence of significant demand is required. (p.36)

- An assessment of the feasibility of separate marketing for future greenfield developments needs to be reviewed on a case by case basis. No one rule or view on the desirability or otherwise of separate marketing will fit all cases. This is perhaps highlighted by what appears to have been the development route being taken by the Thylacine / Geographe joint venturer. (p.38)

- A generalised approach by industry in respect of some of the adverse impacts of separate marketing has not aided discussion. The way forward can be far better assessed by applying comments to specific joint venture situations. In a number of the cases it will be found that impediments can be overcome. After all, major oil and gas companies operating in Australia engage in separate marketing of gas elsewhere in the world. In those particular circumstances, there is little apparent disturbance to investment patterns. (p.41)

- In Australia, detailed lifting, allocation and balancing agreements exist for separate marketing of oil, condensate and LPGs. The product markets may be different, but the systems would not appear to be so complex or costly as to be insurmountable obstacles to separate marketing. (p.44)

- We do not regard the availability of gas storage as an impediment that would prevent the progressive introduction of separate marketing. The flexibility provided by gas storage can and is provided by other producers within the market, transmission line pack and demand side management through contract interruptability. The services that can be delivered by gas storage can of course be met by anyone prepared to provide such services. This may develop as a commercial opportunity for existing or new entrant companies. (p.46)[43]

175. The CoAG final report repeated some of the statements made in the KPMG report as well as including other statements of interest:

- Historically, governments (Australian state governments) have supported joint marketing of gas production in order to facilitate the development of the resources. These approvals were given in the context of a sector where traditionally monopoly producers dealt with monopoly buyers and vertically integrated businesses were the norm. Under these conditions the potential loss of competition through joint venture marketing was minimal. (p.200)

- Moving towards separate marketing should be considered as part of the overall package to improve the competitive nature of the natural gas market. Separate marketing itself should be regarded as one of the ingredients that in the appropriate circumstances helps to create competition and thereby a more mature market. (p.200)

- …effective allocation and balancing arrangements may not be possible in some circumstances, particularly where the risk to producers of finding buyers at a

[43] KPMG, *CoAG Energy Market Review, Separate Marketing of Natural Gas in Australia*, October 2002.

competitive price is high because there are few buyers and/or the volumes individual producers would have to place into the market are disproportionately large. (p.202)

- …joint ventures face some challenges in dealing with production balancing issues and that these need to be addressed in the unique circumstances of each case in determining the applicability of individual competitive marketing. It is acknowledged that there are circumstances where separate marketing is not practical. Nevertheless, the points below suggest that there are circumstances where separate marketing is likely to be practical:

  - the significant differences that can exist between 'greenfield' developments and additional/incremental contracts from existing reserves and facilities
  - the recent public announcements by Woodside that suggest it will separately market gas from a new joint venture in the Otway Basin
  - the stated preference by ExxonMobil to separately market gas but that it considers that technical complexities preclude it in the Gippsland Basin
  - the fact that companies, some of which operate in Australia, manage to satisfactorily allocate and balance production for separate marketing in other countries, albeit in different circumstances (p.203)

- each East Coast producing area had many producers, but they market jointly. While it may have been appropriate to exempt such marketing from the Trade Practices Act to encourage the original field development, this may no longer be the case. (p.36) [44]

176. The executive summary of the CoAG final report made the following recommendations to encourage greater competition through separate marketing:

…

7.6 Mandatory notification by joint venturers to the Australian Competition and Consumer Commission of all future joint marketing arrangements;

7.7 That the ACCC conduct case-by-case assessment of the feasibility of separate marketing and that any authorisation granted must contain a review date;

7.8 That the Trade Practices Act be amended to preclude jurisdictions from exempting the application of section 45 to joint marketing of natural gas; and

7.9 That existing state exemptions and Commonwealth authorisations continue to apply to the existing contracts but all new contracts, or renewals, be subject to the nationally consistent regime as currently applied through the Trade Practices Act section 45 test of substantially lessening competition and the section 90 authorisation public benefit test. (p.56)

…

177. In addition to the executive summary, the Commission notes other general conclusions in the CoAG report:

- that in Australia there is limited upstream competition, and steps should be taken to encourage greater competition through separate marketing and acerage management practices;

[44] *Towards a Truly National and Efficient Energy Market*, CoAG Energy Market Review, December 2002.

- increasing competition through separate marketing has the potential to significantly add to competition already existing in the Australian natural gas market;
- moving towards separate marketing should be considered as part of the overall package to improve the competitive nature of the natural gas market. Separate marketing itself should be regarded as one of the ingredients that in the appropriate circumstances helps to create competition and thereby a more mature market;
- it too noted the recent public announcement by Woodside Petroleum Ltd ("Woodside") that suggest it will separately market gas from a new joint venture in the Otway Basin;
- there appears to be no single rule for all circumstances, and there is a need for the ACCC to undertake a detailed analysis on a case-by-case basis for each operation seeking an authorisation to jointly market natural gas in the future;
- given the significant evolution in the Australian gas market in the last decade, the first steps should now be taken towards encouraging greater competition through separate marketing where this can be achieved. It added that the time was right to encourage greater competition through separate marketing in the South East market and perhaps to a lesser extent in the Western Australian market;
- that future assessments by the ACCC should move beyond the paradigm of whether the natural gas market is a mature market and therefore able to support separate marketing; and
- given the ongoing reforms and changes in the gas industry, the Panel believes that any authorisations granted should contain a review date.

178. The Applicants argue that the results of the CoAG report are completely consistent with a finding that separate marketing from the greenfields Pohokura site is unlikely to be feasible. Through Mr David Agostini ("Mr Agostini"), the Applicants also argued that the main conclusion of the report was that there must be careful focus on the facts of each particular application for authorisation of joint marketing ie a case-by-case approach.

179. In a written submission and at the Conference, Mr Agostini[45] provided his views on the Australian experience and how the New Zealand market compared to the Australian market. In relation to the CoAG report, Mr Agostini said that it included 53 recommendations, of which 11 were directed specifically to the issue of the gas market. Of these five were pertinent to the issue of separate marketing including the recommendations set out in paragraph 176.

180. Mr Agostini also explained that while the CoAG Panel agreed with many of the points that came out of the KPMG analysis, there was not full agreement on some of the points. For example, while major oil companies operating in Australia engage in separate marketing of gas elsewhere in the world, this does not

[45] The Commission notes that Mr Agostini was one of four members of the CoAG Energy Markets Review Panel.

necessarily mean that separate marketing is always viable in Australia. Mr Agostini said that the CoAG panel recognised that the Australian gas market was dominated by long-term supply agreements, and the suggestion that the gas markets could be operated in a similar fashion to the overseas commodity markets, before an effective gas spot market emerges, was not supported.

181. In summary, on behalf of the Applicants, Mr Agostini's opinion was that separate marketing would not appear to be a suitable regime for the Pohokura JV, because in New Zealand:

- the market is even more immature than the Australian market;
- there is little scope for gas sales outside contractual supply arrangements;
- there is not a mature and liquid trading market, which is necessary for a greenfields offshore development; and
- arranging supply contracts individually as opposed to collectively will be more time consuming and likely to lead to higher costs.

Two Examples of Separate Marketing in Australia

Geographe/Thylacine

182. Geographe (VIC/P43) and Thylacine (T/30P) are two separate gas fields that were discovered in the off-shore Otway Basin in south-west Victoria in May and June 2001. The joint venturers in the two fields have agreed commercial arrangements aimed at a joint development of the fields which would allow pooling of Geographe and Thylacine reserves, and for the joint development and sharing of infrastructure.

Table 4
Ownership of the Geographe and Thylacine fields Both Pre and Post Agreement

Companies	Pre-agreement (%)		Post-agreement (%)
	VIC/P43	T/30P	VIC/P43 and T/30P
Woodside	55	50	51.55
Origin Energy Ltd	30	30	29.75
Benaris International	0	20	12.7
CalEnergy Gas	15	0	6
Totals	100	100	100

183. Of interest in this situation is that the joint venture parties in the two fields have negotiated and agreed to not only jointly develop two fields, but to also separately market the gas. On 14 August 2002, Woodside and TXU Australia Pty Ltd ("TXU") signed heads of agreement for the sale of Woodside's share of gas from the Geographe and Thylacine fields[46]. A further media release[47] states that the

[46] Media release 14 May 2002 – www.otway.woodside.com.au
[47] Media release 5 February 2003 – www.otway.woodside.com.au

agreement allowed the joint venturers to move towards the selection of a development concept in Q2 2003 and a final investment decision by the venturers is expected in the first half of 2004. The intention is to commence gas deliveries in 2006.

184. Woodside told the Commission that its decision to separately market gas was based on two things:

- that there was a conflict with one of the joint venture parties (Origin Energy Ltd ("Origin")) wanting to sell gas to its downstream retail business; and
- all parties to the joint venture had agreed upon a start up date, and therefore it was relatively easy to agree on the size of the development.

185. Woodside added that there were a combination of circumstances that made separate marketing the most logical outcome including:

- a specific marketing opportunity had arisen because at the time gas customers had little opportunity to buy long-term gas from the incumbents, who were either unwilling or unable to offer long-term contracts;
- some of Woodside's customers were prepared to take some of the additional risk of seeking gas from a field that was not yet completely developed;
- each of the parties were in agreement that they wanted to get the development underway, and no party was playing commercial games and playing off their commercial position; and
- the most important issues were the high degree of commercial integrity between the parties, and a willingness to get the project up and running.

186. The Commission notes that Woodside said that Geographe/Thylacine was not a blueprint or a model for marketing that could be used everywhere, and that specific circumstances in that case have made it possible for separate marketing. The Commission also notes that the GBA and final investment decision are yet to be completed, although it does seem that the parties in this particular situation had been able to make considerable progress in their agreements to date.

Yolla

187. The Yolla gas field was discovered in 1985 and is located approximately 140 km offshore from Victoria. The Yolla field is a joint venture partnership between Origin as operator (37.5%), Australian Worldwide Exploration Ltd ("AWE") (37.5%), CalEnergy (20%), and Wandoo Petroleum (5%)[48]. The field is estimated to contain 256 PJ of sales gas, 1 million tonnes of LPG, and 14 million barrels of condensate. The offshore platform is currently being built and is expected to be commissioned between June-September 2004 and will be fully operational by the end of September that year.

[48] www.originenergy.com.au

188. AWE's website[49] states that a critical milestone in the development of the Bass Gas Project (Yolla) was reached in July 2001, when gas sales agreements were signed between AWE and Origin Retail, and separately between CalEnergy and Origin Retail. Under those agreements, Origin Retail would buy 30% from AWE's share and CalEnergy's 20% share of 260 PJ of gas reserves. In April 2002, the joint venture approved the development of the project.

189. AWE told the Commission that AWE and CalEnergy decided to market their gas separately because Origin had a potential conflict of interest as it was an upstream participant, the field operator, the gas plant operator, and a potential purchaser of the gas. AWE also said:

- the joint venture figured out the best way to develop the field in terms of production and capex profile (including what equipment was required for the load factors sanctioned by the joint venture);
- once this was decided the joint venture parties went out and separately marketed their share of the gas with a pro forma set of agreed term sheet parameters, knowing their annual allocation of production from the field and at what load factors;
- AWE is selling its share of the gas to Origin, the outcome of a competitive tender between five major retail purchasers;
- at the start of the process, AWE did not think that all the joint venture parties would end up selling their gas to Origin, and Origin was by no means sure of getting the gas;
- the gas balancing agreements together with a totally new operating agreement took between 6-9 months to put together. AWE and CalEnergy had not entered into gas balancing arrangements prior to executing their respective gas sales agreements;
- the Yolla model and Geographe/Thylacine are the first time in Australia that separate marketing has been carried out. Competitive/separate market theory usually works in deep gas markets but is very difficult in shallow markets like Australia and New Zealand. Joint marketing is easier but separate marketing can occur – depending on how cooperative the joint venture parties are; and
- shallow markets, with dominant participants at any stage of the energy chain, require a strong regulatory watch-dog to protect the interests of all stakeholders.

190. The Applicants argue that the examples raised by the Commission as evidence of separate marketing bear little resemblance to the conditions facing the Pohokura gas field. They argue that the examples of Geographe/Thylacine and Yolla were not supportive of any general proposition that separate marketing is feasible in other than the most particular circumstances. In that respect the Applicants submitted that:

[49] www.awexp.com.au

- Geographe/Thylacine fields have not yet been developed and crucial arrangements such as balancing agreements have yet to be concluded, and the final investment decision is not due until March 2004;
- Woodside, one of the parties to the Geographe/Thylacine field, is pursuing joint marketing arrangements in relation to other fields it is bringing into production;
- the Yolla development centres upon the initiatives of one of the key shareholders and the operator, namely Origin. Given Origin's desire to purchase all the gas from the field, it is reasonable to assume that the other shareholders would have realised that development was less likely to proceed if gas was sold to purchasers other than Origin; and
- in order for the Yolla partners to obtain a competitive price, AWE sought competitive bids to provide a benchmark price for the contracts with the remaining shareholders.

191. At the Conference Mr Tweedie, of Todd, said that as the Chairman of Cue Energy (a former shareholder in the Yolla field) he was able to speak on a reasonably informed basis with regard to Yolla. He added that Yolla was a very specific case with unusual circumstances that could be clearly distinguished from the situation at Pohokura. He added that it was his understanding that the development and sale of gas were highly coordinated and that all the joint venture parties were going to get the same contractual deal with Origin, the buyer of all the gas.

192. Mr Tweedie said that it was always AWE's intention to sell the gas to Origin, and that AWE only went to the market with the purpose of establishing a price for that gas. Mr Tweedie also said that if AWE had intended to sell that gas to any other party, there was a high probability that the project would not have proceeded.

193. In relation to this point, the Commission notes that Mr Phillips, Managing Director of AWE, told Commission staff that when it offered its share of gas by way of tender, Origin was by no means sure of getting the gas, but its bid was some 20% higher than other bids that AWE received for the gas.

194. In relation to the Geographe/Thylacine development, Mr Tweedie said that because a development decision has not yet been made, there could still be a delay in the development of the fields.

195. While a delay remains a possibility, the Commission notes that Woodside has recently announced[50] a key milestone in the Otway Gas Project and a major step forward to delivering gas to south-east Australia in 2006. These include:

- the partners committing to the next phase of the development and will invest $26M in design engineering and project planning, following the recent selection of the preferred development concept;

[50] Media release 6 June 2003 – www.investor.woodside.com.au

- basis of design work will start immediately, ultimately clearing the way for tenders to be called for the engineering and construction of the onshore and offshore facilities;
- it is anticipated that a final investment decision will be taken by May 2004; and
- the project is on schedule for start up in mid 2006.

VENCorp

196. The Victorian gas market, operated by VENCorp, remains predominantly a 'contract' market where the producers supply virtually all the gas to 'retailers' or 'shippers' who take title to the gas at the point of production. The retailers/shippers therefore pay the producers a fixed contract price, but are themselves able to offer the gas into the spot market and either buy or sell gas at the variable spot price. The spot market is effectively used to clear and automatically balance retailer/shippers imbalances – e.g., if a retailer injects more gas (from all sources) than it withdraws over the course of a gas day, then it is paid the spot price for the difference between total injections and total withdrawals.

197. There is nothing that would prevent a producer from offering gas directly into the spot market, it just has not happened to date in Victoria because of the contract position.

198. When the spot market commenced in Victoria the market consisted of one producer, one pipeline operator and three retailers.

199. VENCorp explained that the overall reform of open access to pipelines, the access code, and the spot market together, created the more competitive environment that now exists.

ACCC

200. The Commission met with staff from the ACCC's Gas Branch. The ACCC said that the last time it had to consider an authorisation application for joint marketing of gas was in 1998. In the past, the crucial issue when considering authorisation applications for joint marketing of gas has been the issue of whether separate marketing is feasible. If separate marketing was not feasible then the ACCC considered that allowing joint marketing to proceed was a better outcome than no development, and therefore no new gas supply. The ACCC's view is that it has always taken the stance that the competitive benefits of separate marketing, where feasible, will always outweigh the detriment of joint marketing, and therefore to grant authorisation it needs to be convinced that the project would not proceed without authorisation. Its focus has been on getting the applicants to show why development would not occur in the absence of joint marketing.

201. In the case of the NWS authorisation the ACCC ruled that the benefits resulted from the project proceeding, compared to the situation where no development would have taken place.

202. The ACCC said that while it did provide some input into the CoAG review, the review's recommendations are not those of the ACCC. The Commonwealth Government has now set up a task force to formulate the Commonwealth's response to the CoAG review and that process is continuing.

203. The ACCC commented that until very recently, the gas supply in Australia was very much dominated by one supplier in each market, and in the past when it has considered authorisation applications, essentially the market consisted of one field, one pipeline, and one purchaser.

Other Submissions

204. In other submissions, Ballance said that the conclusion resulting from a thorough canvas of the Australian experience supports the drive to separately market gas unless the accepted counterfactual is no development.

205. In its submission, Contact supported the Commission's view that there were differences between the two Australian cases (the NWS and the Mereenie Producers) and the Pohokura situation, and in particular Contact submitted that it was clear that the 'no development' counterfactual was not applicable in relation to Pohokura. Contact submitted that both the NWS and Mereenie Producers developments emphasised the importance of relationships between the joint venture parties and that the Commission should be cautious about concluding that separate marketing would not be feasible simply because of possible commercial game-playing within the Pohokura JV.

206. In its submission, NGC said that the examples of the Geographe/Thylacine and Yolla fields in Australia, and the evolution of policy thinking in Australia regarding separate marketing, supported the findings.

Commission's Conclusion on the Australian Experience

207. The Commission has noted all the submissions on the Australian circumstances. The Commission has found it useful to improve its understanding about both the historical and recent developments that have occurred in Australia.

208. In general, the Commission accepts the views and findings of the ACCC and the CoAG report. In particular, the Commission considers that there is general agreement regarding competition benefits where separate marketing is feasible. This is evidenced by the conclusions in the CoAG report in relation to gas markets, described in paragraphs 176 to 0 above.

209. In conclusion, the Commission notes that in Australia, there is a recognition that separate marketing, where feasible, does result in competitive benefits and that

marketing arrangements should be considered on a case by case basis. This is the approach that the Commission adopts in the New Zealand context. In Australia, there is also an expectation that the market will continue to develop and that this will allow for further examples of separate marketing to occur in the future.

AGREEMENTS CONCERNING THE MAUI GAS FIELD

210. On 27 June 2003, the Commission received a letter from the MED which informed the Commission in confidence about [

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211. [

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212. [

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213. [

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214. The Commission convened a confidential session at its Conference to discuss the matter. Present were representatives of Shell, Contact, NGC, Todd, Methanex, OMV and the Ministry of Commerce. Other persons were excluded from the session.

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APPLICATION OF THE COMMERCE ACT

222. Section 27 of the Act provides:

> 27. Contracts, arrangements, or understandings substantially lessening competition prohibited.
>
> (1) No person shall enter into a contract or arrangement, or arrive at an understanding, containing a provision that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market.
>
> (2) No person shall give effect to a provision of a contract, arrangement, or understanding that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market.
>
> (3) Subsection (2) of this s applies in respect of a contract or arrangement entered into, or an understanding arrived at, whether before or after the commencement of this Act.
>
> (4) No provision of a contract, whether made before or after the commencement of this Act, that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market is enforceable.

223. Section 30 of the Act provides:

> 30. Certain provisions of contracts, etc, with respect to prices deemed to substantially lessen competition:
>
> (1) Without limiting the generality of section 27 of this Act, a provision of a contract, arrangement, or understanding shall be deemed for the purposes of that section to have the purpose, or to have or to be likely to have the effect, of substantially lessening competition in a market if the provision

has the purpose, or has or is likely to have the effect of fixing, controlling, or maintaining, or providing for the fixing, controlling, or maintaining, of the price for goods or services, or any discount, allowance, rebate, or credit in relation to goods or services, that are—

(a) Supplied or acquired by the parties to the contract, arrangement, or understanding, or by any of them, or by any bodies corporate that are interconnected with any of them, in competition with each other; or

(b) Resupplied by persons to whom the goods are supplied by the parties to the contract, arrangement, or understanding, or by any of them, or by any bodies corporate that are interconnected with any of them in competition with each other.

(2) The reference in subsection (1) (a) of this section to the supply or acquisition of goods or services by persons in competition with each other includes a reference to the supply or acquisition of goods or services by persons who, but for a provision of any contract, arrangement, or understanding would be, or would be likely to be, in competition with each other in relation to the supply or acquisition of the goods or services.

224. Under s 58 of the Act, a person may apply for an authorisation for contracts, arrangements or understandings that breach ss 27, 28, 29, 37 or 38. Section 58 provides:

58. Commission may grant authorisation for restrictive trade practices—

(1) A person who wishes to enter into a contract or arrangement, or arrive at an understanding, to which that person considers section 27 of this Act would apply, or might apply, may apply to the Commission for an authorisation to do so and the Commission may grant an authorisation for that person to enter into the contract or arrangement, or arrive at the understanding.

(2) A person who wishes to give effect to a provision of a contract or arrangement or understanding to which that person considers section 27 of this Act would apply, or might apply, may apply to the Commission for an authorisation to do so, and the Commission may grant an authorisation for that person to give effect to the provision of the contract or arrangement or understanding.

(3) A person who wishes to enter into a contract or arrangement, or arrive at an understanding to which that person considers section 29 of this Act would apply, or might apply, may apply to the Commission for an authorisation for that person to enter into the contract or arrangement or arrive at the understanding.

(4) A person who wishes to give effect to an exclusionary provision of a contract or arrangement or understanding to which that person considers section 29 of this Act would apply, or might apply, may apply to the Commission to do so, and the Commission may grant an authorisation for that person to give effect to the exclusionary provision of the contract or arrangement or understanding.

225. Section 61 details the factors that the Commission must satisfy itself of before granting an authorisation, the relevant provisions of which are set out below:

61. Determination of applications for authorisation of restrictive trade practices—

(1) The Commission shall, in respect of an application for an authorisation under section 58 of this Act, make a determination in writing—

(a) Granting such authorisation as it considers appropriate:

(b) Declining the application.

(2) Any authorisation granted pursuant to section 58 of this Act may be granted subject to such conditions not inconsistent with this Act and for such period as the Commission thinks fit.

(3) The Commission shall take into account any submissions in relation to the application made to it by the applicant or by any other person.

(4) The Commission shall state in writing its reasons for a determination made by it.

(5) Before making a determination in respect of an application for an authorisation, the Commission shall comply with the requirements of section 62 of this Act.

(6) The Commission shall not make a determination granting an authorisation pursuant to an application under section 58(1) to (4) of this Act unless it is satisfied that—

(a) The entering into of the contract or arrangement or the arriving at the understanding; or

(b) The giving effect to the provision of the contract, arrangement or understanding; or

(c) The giving or the requiring of the giving of the covenant; or

(d) The carrying out or enforcing of the terms of the covenant—

as the case may be, to which the application relates, will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening in competition that would result, or would be likely to result or is deemed to result therefrom.

(6A) For the purposes of subsection (6) of this section, a lessening in competition includes a lessening in competition that is not substantial.

(7) The Commission shall not make a determination granting an authorisation pursuant to an application under section 58(5) or (6) of this Act unless it is satisfied that—

(a) The entering into of the contract or arrangement or the arriving at the understanding; or

(b) The giving effect to the exclusionary provision of the contract, or arrangement or understanding—

as the case may be, to which the application relates, will in all the circumstances result, or be likely to result, in such a benefit to the public that—

(c) The contract or arrangement or understanding should be permitted to be entered into or arrived at; or

(d) The exclusionary provision should be permitted to be given effect to.

226. The Commission's approach is to first satisfy itself whether the relevant contract, undertaking, arrangement or provision would result or would be likely to result, or is deemed to result in a lessening of competition.

227. Section 61(6A) provides that the lessening of competition includes a lessening that is not substantial. Once the Commission is satisfied that the relevant contract, understanding, arrangement or provision would result, or would be likely to result, in a lessening of competition or is deemed to result in a lessening of competition it will go on to assess the benefits and detriments that would, or would be likely to, result from the relevant arrangement or provision. Conversely, if the Commission is not satisfied that there would be a lessening, a likely lessening, or deemed lessening the Commission considers that authorisation is neither required by the Act, nor is within the jurisdiction of the Commission and will decline to grant authorisation.

228. The Commission's approach is summarised in Gault on Commercial Law[51]. The Commission asks the following six questions:

(i) What is the relevant market (or markets) in which the effect of the practice upon competition is to be evaluated?

(ii) Is the practice for which approval is applied for, one to which the applicant considers s 27 (or other appropriate section) of the Act would apply, or might apply? At this point the Commission may still wish to determine whether any of the exemptions in ss 43, 44 or 45 apply. Also, is it a practice to which s 36 applies — in which case authorisation cannot be granted.

(iii) To what extent does the contract or arrangement in question result in a 'lessening of competition' in the market or markets affected by the practice?

(iv) What are the effects caused by the lessening of competition referred to above?

(v) Does the contract or arrangement result or will it be likely to result in a benefit to the public? (The applicants have an evidential onus to show benefit or benefits to the public).

(vi) Does the net public benefit which is found to exist from the practice outweigh any net competitive detriment from the lessening of competition in the relevant market?

[51] Paragraph 61.06.

229. In summary, the Commission first considers the relevant markets. It then considers whether any of the provisions of an arrangement are likely to result in a lessening of competition or are deemed to lessen competition in any of those relevant markets. If some of the provisions lessen competition, or contain exclusionary provisions, the Commission then considers the benefits and detriments that are likely to result from parties entering into the arrangement or giving effect to the provisions.

MARKET DEFINITION

Introduction

230. The purpose of defining a market is to provide a framework within which the competition implications of an arrangement can be analysed. The relevant markets are those in which competition may be affected by the arrangement being considered, and in which the application of Part V of the Act can be examined.

231. Section 3(1A) of the Act provides that:

> ... the term 'market' is a reference to 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.

232. The relevant principles relating to market definition are set out in *Telecom v Commerce Commission (1991)*[52] ("the AMPS A case") and in the Commission's Practice Note 4. A brief outline of the principles follows.

233. Markets are typically defined in relation to four dimensions, namely: product, geographic, function, and time. A market encompasses products that are close substitutes in the eyes of buyers, and excludes all other products. The boundaries of the product and geographical markets are identified by considering the extent to which buyers are able to substitute other products, or substitute across geographical regions, when they are given the incentive to do so by a change in the relative prices of the products concerned. A market is the smallest area of product and geographic space in which all such substitution possibilities are encompassed. It is in this space that a hypothetical, profit-maximising, monopoly supplier of the defined product could exert market power, because buyers, facing a rise in price, would have no close substitutes to turn to.

234. A properly defined market includes products which are regarded by buyers or sellers as being not too different (the product dimension), and not too far away (the geographic dimension), and are therefore products over which the hypothetical monopolist would need to exercise control in order for it to be able to exert market power. A market defined in these terms is one within which a hypothetical monopolist would be in a position to impose, at the least, a 'small yet

[52] *Telecom Corporation of New Zealand Ltd v Commerce Commission* (1991) 4 TCLR 473.

significant and non-transitory increase in price' ("*ssnip*"), assuming that other terms of sale remain unchanged.

235. Markets are also defined by functional level (the functional dimension). Typically, production, distribution, and sale occur through a series of stages, with markets intervening between suppliers at one vertical stage and buyers at the next. Hence the functional market level affected by the arrangement has to be determined as part of the market definition. For example, that between manufacturers and wholesalers might be called the manufacturing market while that between wholesalers and retailers is usually known as the wholesaling market.

Identifying Relevant Markets

236. To identify the markets relevant to the arrangement, it is necessary to consider the business activities undertaken by the Applicants.

237. The relevant market can vary depending on the matter at issue. As stated in the AMPs A case:

> The boundaries {of the market} should be drawn by reference to the conduct at issue, the terms of the relevant section or section, and the policy of the statute. Some judgment is required, bearing in mind that "market" is an instrumental concept designed to clarify the sources and potential effects of market power that may be possessed by an enterprise.

238. The activity directly affected by the Arrangement is the first sale of gas produced from the Pohokura field.

239. The Arrangement does not cover the marketing of other products likely to be produced from the Pohokura field. Accordingly it is not necessary for the purpose of assessing competition effects to define markets which incorporate condensate and LPG. (While the early production of condensate and LPG affects the public benefit analysis, the market in which these products fall is not directly relevant to that exercise.)

Product Market

240. In the past, when the Commission has considered business acquisitions in the energy sector it has received submissions suggesting that natural gas, electricity and other energy forms are substitutable and that each falls within an 'energy' product market. This has not been the approach adopted by the Commission to date. The Commission stated in Decision 270[53]:

> None of the evidence presented to the Commission points to a clear cut answer to the market definition problem. However, all of the evidence is consistent with the conclusion that natural gas and other fuels, especially electricity and to a lesser extent

[53] Decision 270, Natural Gas Corporation of New Zealand Limited and Enerco New Zealand Limited, 22 November 1993.

> coal, are indeed substitutes for each other, both technically and commercially – but they are at best imperfect substitutes, and cannot be regarded as being in the same market.[54]

241. This approach is consistent with decisions of the courts. In the High Court judgment in *Power New Zealand v Mercury*[55], subsequently upheld in February 1997 by the Court of Appeal, the Court said:

> It is common ground that gas is not in close competition with electricity. We see no reason to question this approach.[56]

242. In the Kapuni litigation[57] the High Court heard a substantial amount of economic evidence on market definition. It said:

> We accept that {light fuel oil, coal and electricity} are substitutable {for natural gas} in certain favourable circumstances, but always at the edges and seldom in response to a SSNIP.[58]

243. In subsequent decisions[59] the Commission in each case considered it appropriate to adopt discrete product markets for electricity and natural gas. The Commission recognised that while inter-fuel competition provided some constraint on each energy form, it did not consider the constraint sufficiently strong to include electricity and natural gas in the same market.

244. The Applicants accepted that for the purposes of considering this Application, the product market at issue is natural gas. None of the other interested parties suggested otherwise. Nor is the Commission aware of any new information which would persuade it that its past practice of placing natural gas in a discrete product market is now inappropriate.

Functional Market

245. In Decision 408[60] the Commission accepted the appropriateness of separate functional markets for the:

- production (and first sale) of natural gas; and
- wholesaling of natural gas.

246. In this instance the Commission adopts this functional distinction for reasons similar to those stated in Decision 408.

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[54] ibid, paragraph 129.
[55] *Power New Zealand Ltd v Mercury Energy Ltd* (1996) 1 NZLR 686.
[56] ibid, p.704.
[57] *Shell (Petroleum Mining) Company Limited and Another v Kapuni Gas Contracts Limited and Another* (1997) 7 TCLR 463.
[58] ibid, p.527.
[59] Including Decision 330, NGC/Powerco, Decision 333 Contact/Enerco, Decision 340 TransAlta/Contact, Decision 345 UnitedNetworks/TransAlta, Decision 380 UnitedNetworks/Orion, Decision 408 Shell/Fletcher Challenge Energy.
[60] Decision 408.

247. The production (and first point of sale) market encompasses transactions between the producers of gas and their first point of sale customers. Such customers potentially include:

- resellers, such as NGC, Contact and Genesis;
- the individual Applicants themselves who may have retail arms or contractual obligations to supply gas;
- electricity generators such as Contact and Genesis;
- petrochemical manufacturers such as Ballance and Methanex; and
- large industrial consumers.

248. On the other hand, the wholesale market encompasses transactions between parties such as those described above and large end users such as large industrials or retailers.

249. The Commission considers that the functional market of principal relevance in this instance is that for gas production (and first point of sale). Submissions indicate that the interested parties accept this position.

Time Dimension

250. In Decisions 408 and 411 the Commission concluded that it was appropriate to include a time dimension in the gas market definition. It adopted a discrete market for gas production up to 2009 and another market for gas production beyond 2009.

251. In reaching this position, the Commission took into account the dominant nature of the Maui gas field and the expectation at that time (that is, in 2000) that Maui would continue to account for a substantial proportion of total gas produced until 2009, when it would be significantly depleted. The Commission concluded that the characteristics of the gas market would change markedly around 2009 and that an assessment of the competitive nature of gas market into the future would be assisted by considering separately the period up to 2009 and the period after 2009.

252. The Applicants have stated that such an approach is no longer appropriate. They have suggested that there is no longer an indicative point of a sharp change in the competitive situation and that the depletion of Maui is now well anticipated.

253. The Commission recognises that the depletion of Maui is now likely to occur earlier than had previously been indicated and it appears that this has already been factored into the market. Thus the depletion of Maui, when it occurs, is unlikely to result in a stark change in the nature of the market.

254. However, it is reasonable to assume that there will be important changes over time in both the supply and demand side as new fields are discovered and developed and large gas users arrive or depart. It is not possible to predict these

changes with any precision but each of these changes could have an important effect on the market.

255. In relation to the current Application, the Commission has decided that it is not appropriate to adopt discrete markets for different time periods. However it has adopted a forward-looking approach to the market and has taken into consideration identifiable future changes. It has considered likely market circumstances over the anticipated full life of the Pohokura field.

Conclusion on Relevant Market

256. The Commission concludes that the market relevant to its consideration of the Application is the national natural gas production (and first point of sale) market ("the gas market").

DEEMED LESSENING OF COMPETITION

257. Section 30 of the Act prohibits provisions of contracts, arrangements, or understandings that have the purpose, effect, or the likely effect of fixing, controlling, or maintaining prices. Such a contract, arrangement, or understanding is deemed to substantially lessen competition in terms of s 27 of the Act.

258. In determining whether there is a deemed lessening of competition, the Commission has considered the application of s 31 of the Act which exempts from the s 30 deeming rule certain price fixing provisions in contracts, arrangements, or understandings between parties to a joint venture (as defined in subs (1)(a)). While s 31(2) exempts types of joint venture pricing provisions from the s 30 deeming rule, such provisions remain subject to the s 27 general competition test.

259. In relation to the Application, there are three agreements between the Pohokura JV parties that are most relevant. They are:

- the JVOA;
- Technical Services Agreement dated 21 October 2002 ("the TSA"); and
- Agreement to Amend the JVOA dated 6 September 2002 ("the Amendment Agreement").

260. The Pohokura JV parties note in their Application that:

- by virtue of the deeming operation of s 30, the JVOA and the Amendment Agreement entered into by the Pohokura JV parties collectively, will amount to price fixing in prohibition of the Act;[61] and
- by virtue of s 31, s 30 does not apply in this case.[62]

[61] The Application, paragraph 56.

261. The issue for the Commission to consider is whether the JVOA and the Amendment Agreement falls within the terms of s 31 of the Act, and therefore whether s 30 of the Act applies.

262. In order to answer this, first the Commission must consider whether the Pohokura JV parties are found to be a joint venture. Section 31(1) defines a joint venture as:

> S.31 Joint venture pricing exempt from application of section 30—
>
> (1) For the purposes of this section—
>
> (a) Joint venture means an activity in trade—
>
> (i) Carried on by 2 or more persons, whether or not in partnership; or
>
> (ii) Carried on by a body corporate for the purpose of enabling 2 or more persons to carry on that activity jointly by means of their joint control, or by means of their ownership of shares in the capital, of that body corporate or an interconnected body corporate:
>
> (b) A reference to a contract or arrangement entered into, or an understanding arrived at for the purposes of a joint venture shall, in relation to a joint venture by way of an activity carried on by a body corporate in terms of paragraph (a) (ii) of this subsection, be read as including a reference to the memorandum and articles of association, rules, or other document that constitute or constitutes, or is or are to constitute, that body corporate.

263. The concept of joint venture was considered by McGechan J in *Commerce Commission v Fletcher Challenge*[63]. He observed that:

> Unfortunately, there is much less certainty as to the legal definition and boundaries (if such indeed yet exist) for a "joint venture".

264. McGechan J then referred to the decision of the majority of the High Court of Australia in *United Dominions v Brian Pty Ltd*[64]. The majority observed:

> The term 'joint venture' is not a technical one with a settled common law meaning. As a matter of ordinary language, it connotes an association of persons for the purposes of a particular trading, commercial, mining or other financial undertaking or endeavour with a view to mutual profit, with each participant usually (but not necessarily), contributing money, property or skill.

265. The Commission considers that, given the approaches taken by the courts, the JVOA and the Amended Agreement are likely to be a joint venture under s 31(1). However, not all activities of joint ventures under s 31(1) are exempt from s 30.

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[62] ibid, paragraph 57.
[63] *Commerce Commission v Fletcher Challenge,* [1989] 2 NZLR 554.
[64] *United Dominions Corporation Ltd v Brian Pty Ltd (*1985) 60 ALR 741.

The exemption applies only to the activities specified in s 31(2). The Applicants have submitted that s 31(2)(a) applies. Section 31(2)(a) provides:

> (2) Nothing in section 30 of this Act applies to a provision of a contract or arrangement entered into, or an understanding arrived at for the purposes of a joint venture, to the extent that the provision relates to—
>
> (a) The joint supply by the parties to the joint venture, or the supply by the parties to the joint venture in proportion to their respective interests in the joint venture, of goods jointly produced by those parties in pursuance of the joint venture;

266. Gault on Commercial Law interprets the s 31(2)(a) exception as permitting the parties to a joint venture to fix the price at which jointly produced goods are to be marketed or, alternatively to fix the price at which each joint venturer may separately market its share of the joint product. In the latter case, the joint venturers may take advantage of the exception only if each takes and markets a share of the product proportionate to its interests in the joint venture.

267. The Commission concludes that the s 31(2)(a) exception would apply to the Arrangement which it therefore considers is likely to be exempt from the application of s 30.

268. Thus the provisions of the Arrangement are not deemed to lessen competition. The Commission must, therefore, go on to consider whether in fact the Arrangement would result, or would be likely to result, in a lessening of competition.

THE FACTUAL

269. For the competition analysis, The Commission compares the factual (the Arrangement) with the counterfactual.

270. The Applicants have set out the Arrangement in the Application and in summary, the factual consists of:

- the Pohokura JV parties discussing and agreeing on all relevant terms and conditions, including price, quantity, rate, specification and liability for the joint sale of gas from Pohokura; and
- the Pohokura JV parties negotiating and entering into contracts for the sale of Pohokura gas jointly (ie as one seller).

THE COUNTERFACTUAL

Introduction

271. The Commission when undertaking assessments of applications under s 58 of the Act compares the likely competitive effects of the arrangement in question, and

the public benefits and detriments likely to result from the arrangement with those that are likely to arise in the 'counterfactual'. This requires the Commission to determine a benchmark or 'counterfactual' against which to measure the likely competitive effects and public benefits. The Commission makes a 'with' and 'without' comparison rather than a 'before' and 'after' comparison.

272. The counterfactual is not an arrangement which might be preferred by the Commission or by particular parties with an interest in the industry. Rather the counterfactual is a pragmatic and commercial assessment by the Commission of what is likely to occur in the absence of the arrangements.

273. The Applicants have suggested that any counterfactual adopted by the Commission requiring an authorisation would result in further delay in the development of the Pohokura field while the Commission considers an additional application for authorisation. The Commission does not consider that there is anything in the Act, or any precedent, which necessarily prevents the Commission from adopting a counterfactual which might require an authorisation.

274. The counterfactual is a tool which enables the Commission to assess the likely competition effects of the proposed arrangement. It is not intended to be a substitution for the proposed arrangement. It is a hypothetical that requires reasonable assumptions to be made. Such assumptions may include an assumption that the counterfactual will be authorised if necessary. The Commission considers that in making this assumption, it is not necessary to undertake a full analysis as to whether the counterfactual would in fact receive an authorisation. Obviously the counterfactual cannot be so clearly an unlawful arrangement that it is not reasonable to assume it may be authorised.

275. The selection of the counterfactual is a judgement made having regard to all the circumstances of the case based on a reasonable assessment of the likelihood of what would happen in the absence of the proposed arrangement. Thus, the counterfactual is a pragmatic and commercial assessment by the Commission of what is likely to occur in the absence of the arrangement. In making an assessment in this case, the Commission has assumed, for the purposes of its analysis that if necessary, the counterfactual scenario is likely to receive authorisation.

276. Also, the counterfactual need not necessarily be a lower cost or more efficient alternative to the arrangement which is the subject of the Application. The relative efficiencies of the arrangement and the counterfactual are taken into account in the weighing of public benefit and detriments. However, a theoretical alternative which would impact adversely on the viability of the business or project at risk can usually be ruled out as a possible counterfactual because it would not be likely to be put into effect in the absence of the arrangement.

The Arguments on the Counterfactual

277. In its Application, the Applicants suggested that separate marketing of gas was not feasible in the short-term or for the expected life of the Pohokura field. Accordingly they considered that in the absence of the Arrangement, it was possible that the Pohokura field would not be developed. Consequently, they considered the appropriate counterfactual for the competition analysis was one of 'no development'.

278. The Applicants added that if the Commission did not accept 'no development' as the counterfactual, there were two forms of marketing, involving different forms of coordination "that could be viable at some point in time". However, they stated that those two options were theoretical and were unlikely to eventuate, but were canvassed for the sake of completeness.

279. The Applicants' proposed counterfactuals, in their order of preference, were:

- 'No development' ("No Development");
- 'Scenario 1', where the parties separately sell their proportion of gas after agreeing on parameters for the development of the field. This included an optimal depletion path which may be described in terms of maximum daily, average daily and annual quantities. Within these constraints each Pohokura JV party is able to separately sell its proportionate share of gas to the buyer(s) on the basis of independently negotiated terms and conditions, including price ("Scenario 1"); and
- 'Scenario 2', where each party separately sells its share of gas to the buyer(s) on the basis of independently negotiated terms and conditions, including price, quantity, rate, specification and liability. The Pohokura JV parties would then agree on appropriate development to support the sales contracts in place ("Scenario 2").

280. In subsequent submissions on the Commission's draft determination, the Applicants now accept that Scenario 1 is the most likely counterfactual[65]:

> For the purposes of this application, the applicants are prepared to accept that Scenario 1 selling is the most likely counterfactual, on the assumption that all necessary agreements are reached between these parties to make possible this so-called form of separate marketing.

281. In its submission on the draft determination, the Applicants discussed what this 'separate marketing' means under Scenario 1, and outlined the required degree of coordination between the joint venture parties. The Applicants argued that:

- the degree of coordination required to make Scenario 1 marketing possible is such that it would not in essence, result in separate marketing and would not result in any greater competition when compared with joint marketing;

[65] Applicants' submission, 9 June 2003, paragraph 4.3.

- there would be no significant differences in the prices or contract terms for the sale of gas;
- price discrimination can occur under both Scenario 1 marketing and joint marketing;
- pro-competitive developments in the production market would not be retarded under joint marketing; and
- the Commission's view that Scenario 1 marketing would involve only a one year delay is unsustainable.

282. The Commission notes that the Applicants' first four arguments relate to a comparison of competition between the actual and the counterfactual, and these matters are discussed later in this Determination. The fifth argument, that of the likely time delay is discussed below prior to the conclusion on the counterfactual.

283. The Applicants also argue that under the Arrangement, field output would be at least the same, if not higher, than under a Scenario 1 type counterfactual. This issue is discussed in further detail below.

284. In other submissions that addressed the characteristics of the counterfactual, Ballance; Contact; the Major Electricity Users Group ("MEUG"); and NGC also agreed with the counterfactual of a Scenario 1 type situation.

285. At the Conference, Mr Salisbury for OMV agreed that the 'no development' counterfactual was not likely and noted that the uncertainty of the Commission's authorisation decision did not prevent OMV from making its investment in Pohokura. In addition, Mr Tweedie for Todd said:

> And there is also the point that, in making the investment decision we were always confident that Pohokura one day will get into production, so we're not betting the company on nothing happening, we're quite confident one day it will get there. The question will be, and that's one of the key issues before this Commission, is when? And that's where we say it's going to take longer, and though our company will suffer a negative on that, the nation suffers a far greater negative, and that's the key issue challenging this Commission.

286. In summary, all parties, including the Applicants, agree that the appropriate counterfactual is a Scenario 1 type situation. Therefore, the Commission adopts a counterfactual of separate marketing, described by the Applicants as 'scenario 1'.

287. The scenario 1 counterfactual would have the following characteristics:

- the Pohokura JV parties will negotiate and agree on the development profile and gas output of the field;
- the parties will then separately sell their proportion of the gas in line with their equity ownership of the field; and
- the parties will negotiate and agree on measures to address the associated problems with separate marketing.

288. In addition to the above characteristics, the Commission considers that separate marketing under the counterfactual might result in a delay in the development of Pohokura. However, it is not clear what the nature or possible length of the delay will be. This issue is discussed below.

289. In addition, the Commission will consider the impact of the counterfactual on the likely level of the rate of output of gas from the Pohokura field.

Likely time delay

290. On 21 March 2003, the Applicants provided the Commission with their revised project schedule for the development of Pohokura under the JV. This revised schedule shows production commencing in 2006:

- [ ]
- [ ]
- [ ]
- [ ]
- construction activities were expected to take approximately two years, with first gas scheduled for the beginning of February 2006 and full production capability scheduled for Q2 of 2006.

291. The Applicants argued in the Application that in a Scenario 1 type situation, even if an optimistic view were taken, the development of the field would be delayed by three years beyond the time required for development under the JV, and the welfare losses from separate marketing would be very large.

292. Subsequent to its submission on the draft determination, the Applicants provided additional information claiming the delay would in fact be six years, contrary to the three years claimed in their application.

293. The Applicants have argued that the factors contributing to the delay can be considered under the following headings:

- Appeal of Commission's Decision;
- Duplication of Operators;
- Maximisation of Reserves;
- Gas Balancing and Relation Agreements;
- Cost to Maintain Production – CAPEX / OPEX;
- Gas Supply Agreements; and
- Other Matters.

Appeal of Commission's Decision

294. The Applicants stated that if authorisation were denied, or granted on unacceptable terms, the Pohokura JV parties' most expedient option to develop the field would be to appeal the decision. They also argued that if the

authorisation was not unconditionally granted, the most likely outcome would be an appeal during which time the Applicants would not continue to incur expenditure and the project team would be disbanded and would only be remobilised when security in relation to marketing is achieved.

Duplication of Operators

295. The Applicants argue that because of difficulties faced in resolving the misalignment between the Pohokura JV parties under a separate selling scenario, it is possible that each party would engage its own operator or, at least undertake a substantive level of independent review of the operator's work. They argued that anything that blocks the ability of the Pohokura JV parties to fully co-operate on work crucial to appraisal and development, or that introduces additional work, is likely to delay the development of the field and the commencement of production of gas.

296. The Applicants added that the current appraisal and development schedule relies upon appraisal, development, commercial, and marketing work being undertaken concurrently, and reliance on the work of STOS to achieve first gas in February 2006.

297. The Commission is of the view that all three Pohokura JV parties have already spent considerable time and money on the analysis by STOS, and that it was unlikely that any of the parties would want, or require, duplication of what had already been carried out. While some additional interpretation of the existing data may occur, it was unlikely to amount to much of a delay. There appears to be a valid argument that both Shell and Todd should be reasonably comfortable with STOS's analysis under either joint or separate marketing.

Maximisation of Reserves

298. The Applicants claimed that due to the uncertainty and the magnitude of the sunk investment required to develop Pohokura, long term contracts would need to be in place before investment approval could be given.

299. The Commission understands that in most cases, development planning is undertaken in parallel to commercial negotiations. The plan is then refined as the scope of the sales contracts becomes clear. As Mr Salisbury set out in his presentation to the Utilicon New Zealand conference, the optimal development concept for all projects requires discussion and agreement on a number of matters, whether or not gas is marketed jointly, e.g. options for recovery of LPG and condensate, and the processing options and specifications for the gas stream.

300. The Pohokura JV parties have already carried out extensive work on design concepts (based on the information provided by STOS), and it can be assumed that much of this work will be used regardless of the method of gas marketing. The Commission understands that in order to maximise revenues the parties would want to recover the liquids from the field as quickly as possible, up to the

technical limit of the field without damaging the reservoir. The liquids are driven by the gas volumes to be produced, so it is reasonable to assume that the development plans and decisions will take these into account, irrespective of the method of gas marketing.

Gas Balancing and Related Agreements

301. In order for the Pohokura JV parties to separately market gas, they would need to develop and agree a Gas Balancing Agreement (GBA) that would protect their gas interests. The Commission has been told that the complexity of a GBA can range from simple agreements that are based on generic formats, to complex agreements designed for particular circumstances.

302. The Commission accepts that the gas balancing agreements are likely to be the most contentious issue facing the Pohokura JV parties if required to separately market gas from Pohokura.

303. The Applicants argued that the transaction costs of negotiation of such agreements would be significant and the time required to complete the agreement will inevitably delay the project.

304. The Commission understands that there are at least three model form contracts to use as templates to start negotiations and that these have been prepared to aid those parties that are separately marketing gas. The Commission acknowledges that GBAs are normally present and in operation in mature market areas (such as the United States), however it could be expected that these templates would at least reduce negotiation time. The Commission also notes that some of the parties to the Application have vast experience in this industry and were in a position to use their experiences from other parts of the world, where such agreements are common place.

305. The Commission had been told that it is best practice for GBAs to be negotiated before the gas sales contracts are agreed in order to reduce 'gaming' based on sales contracts. However, the Commission expected that preliminary discussions between individual sellers and potential buyers would take place (and have taken place) during the negotiations of the GBA. At the very least, in a market where there are a limited number of potential purchasers of gas, each of the Pohokura JV parties should be able to reasonably easily obtain a clear understanding of the sale options based on their likely allocation of gas.

306. The Commission agrees that the GBAs are likely to be complex in order to ensure that no one party was disadvantaged in anyway, and that there is a clear understanding of the constraints on each party and the methods of reconciliation, in the event of a party getting out of balance with its entitlement.

307. However, the Commission, based on the current reserves projections for gas and liquids contained in the Pohokura field, considers that there exists an economic incentive to develop the field as quickly as possible. Consequently, the

Commission believes that the incentive of realising early revenue from the sales of Pohokura products is an incentive to successfully conclude negotiations on GBAs.

Cost to Maintain Production – CAPEX / OPEX

308. The Applicants argued that in all joint ventures around the world, joint venture parties pay their equity share of costs and capital, as gas off-take is effectively balanced and costs are shared in proportion to their off-take. They argued that in the New Zealand context there are concerns that CAPEX and OPEX may not be proportionately shared due to the absence of effective balancing mechanisms. They further argued that if required to separately market the gas, the Pohokura JV parties may need to discuss an untried system of varying the contribution to costs and capital depending on the likely future benefits that may accrue to one or other of them.

309. Allocation agreements (liquids, CAPEX and OPEX) are more important when gas is being separately marketed. The areas requiring allocation, concern whether the entitlements/obligations are to be tied to the volume of gas produced by each of the separate parties or remain based on the parties' joint venture working interest.

310. Firms do not want to spend the largest proportion of construction capital until all the key commercial contracts are in place, as funding arrangements will require a guaranteed income stream. There is a risk in spending too much capital before satisfactory gas contracts are concluded. With the capital sunk, the purchasers could then demand a lower price or threaten to strand development; hence the normal practice is to conclude commercial arrangements before construction begins.

311. However, with a shortage of gas in New Zealand those risks may be less, and a large portion of the construction might occur in parallel to the commercial arrangements, e.g. on items that would be needed in any development (onshore base, offshore platforms, pipeline to shore, consents, earthworks, etc).

312. The Commission is of the view that some agreement on the appropriate levels of CAPEX and OPEX would be required in all situations. Each company will have its own views on the appropriate size of the plant required, and although agreement might be easier to achieve if gas is jointly marketed, it was difficult to see that this factor would substantially delay the development of Pohokura.

Gas Sales Agreements ("GSA's")

313. The Applicants noted that it is likely that the GSAs will need to follow the GBAs. The Applicants added that they would be unlikely, under Scenario 1 marketing, to test the market until there was sufficient certainty in gas balancing arrangements.

314. The Commission accepts that it is likely that GSAs would need to follow the agreement on GBAs. However, as stated above it would be expected that the

Pohokura JV parties would 'test' the market and begin preliminary negotiations with potential purchasers of their gas prior to the completion of the GBAs. In any event, the Commission notes that in the current environment where there is a shortage of gas supply, it seems highly unlikely that any of the Pohokura JV parties would not be able to sell their proportion of the gas at an economically attractive price.

Other Matters

315. The Applicants submitted the following factors would also contribute to delay under the counterfactual:

- the interests of other parties, such as consortiums of banks, shareholders, buyers of gas, and other stakeholders; must be considered and that this will be time consuming;
- agreements would need to be made to cover the rights of use of Pohokura JV assets and liabilities for disproportionate use;
- the Pohokura JV parties' design parameters may change significantly at the end of the separate selling process;
- Scenario 1 would involve a different competition assessment to that which applies to the current application, and a new application for authorisation for Scenario 1 marketing would be required; and
- while it may be possible to address some of the matters in parallel and not necessarily sequentially, it would be likely that each matter would require addressing more than once. This process would be iterative and would take time.

316. The Commission accepts that, although a number of the activities required to separately market gas under Scenario 1, can be conducted concurrently, there is scope for some delay, when compared to the proposed joint marketing. However, the likely extent of that delay is not clear from the information provided by the Applicants.

317. The Applicants provided the Commission with their revised work plans for each of joint and Scenario 1 marketing[66]. The Applicants' covering note included the following comments:

> - Estimating the duration of activities which (sic) there is no precedent available anywhere is highly speculative and uncertain. It will always be easy to debate the time allocated to individual tasks. Those times represent the consensus estimate of the Pohokura joint venture parties, based on their collective experience of negotiating and contracting complex gas contracts and other arrangements.
> - The estimates are of course made in the context of the fact that there is no New Zealand experience for the Pohokura joint venture parties to draw on, either from themselves or from anyone else. Moreover, there is no

[66] Letter dated 26 June 2003.

> experience anywhere in implementing a Scenario 1 selling regime in markets and (sic) tiny as that in New Zealand…
>
> …
>
> - In the view of the Pohokura joint venture parties, the time estimates are equally capable of being too short as they are of being too long.
>
> …

318. The Applicants' joint marketing scenario estimated there would be 43 individual tasks to be completed taking 483 days under the following timetable:

- authorisation approved on 8 August 2003;
- Phase 1 – gas marketing completed in 483 days on 21 March 2004;
- Phase 2 – bank approvals and project financing completed in parallel with Phase 1 by 21 March 2004; and
- earliest FID to be made on 21 March 2004.

319. In contrast, the Applicants' Scenario 1 separate marketing timetable estimated there would be 138 individual tasks to be completed taking approximately 2200 days under the following timetable:

- appeal of joint marketing decision would take 730 days to 8 August 2005 with no other work taking place during this period;
- Phase 1 – preparation for selling gas completed in 120 days;
- Phase 2 – seeking bank approval / project financing completed in 50 days;
- Phase 3 – joint venture agreements completed in 838 days;
- Phase 4 – gas marketing completed in 479 days;
- Phase 5 – renegotiation of JV joint agreements based on gas marketing outcomes completed in 260 days;
- Phase 6 – project redesign completed in 390 days; and
- earliest FID to be made on 24 August 2010.

320. The Applicants have therefore argued that while some of the tasks under Scenario 1 can be undertaken concurrently with other tasks, the net effect is that the FID will be delayed by an additional 6 years when compared to joint selling.

321. The Commission notes that there has not been any separate marketing of gas in New Zealand previously on which to base an assessment of the likely time required to complete all the steps of such a process. Mr Hall of Todd stated at the conference that Todd did not have any experience in implementing Scenario 1 type marketing because it has never been done. However, Mr Hall said that the parties have substantial experience in the upstream market in New Zealand and have experience in negotiating gas sales agreements and complex joint venture agreements.

322. Mr Jackson of Shell explained at the conference that Shell does have experience of separate marketing, but no experience in markets like New Zealand, so the comparison was not useful.

323. Ballance submitted that the conclusion around likely delay is the critical determining factor for the Commission, and that any delay is caused by the Pohokura JV parties themselves. Ballance concluded that while it would not want to underestimate the tensions that may exist between the Pohokura JV parties, it fails to see why the Applicants should not be held accountable for their own delays. At the Conference, Ballance argued that if the Applicants were losing $5M for every month that the field development is delayed, then that in itself would provide every incentive to the JV parties to develop the field irrespective of the method of marketing.

324. Contact submitted that the Commission should be cautious about accepting arguments to the effect that concluding appropriate separate marketing arrangements would be unduly time consuming, particularly given the significant detriments identified by the Commission in the draft determination as flowing from joint marketing. Contact added that, as identified by Woodside and AWE (in relation to the Geographe/Thylacine and Yolla examples); commercial integrity in the relationships between the parties; a willingness to get a project up and running; and co-operation between joint venture parties, are critical in developing separate marketing arrangements.

325. Methanex submitted that the only factor that may delay the start date is the negotiation of the gas balancing and product allocation agreements, and it accepts that the Pohokura JV parties would want those agreements finalised prior to committing to gas sales arrangements. However, Methanex argued that the additional time required to negotiate those agreements is highly subjective.

326. Although PEANZ did not make specific comments on the issue of timings, it did submit that GBAs are notoriously complex and a frequent source of litigation. PEANZ added that while international experience of balancing arrangements provides a useful starting point, the overseas experience and model form agreements cannot simply be relied upon as a means of bypassing the evolutionary development of a New Zealand market context.

327. The likelihood of any delay due to separate marketing is a crucial issue in determining the nature of the counterfactual. The Applicants provided information to the Commission on 11 April 2003, including a list of steps that the Applicants consider would be required if Pohokura were to be marketed separately. Against 13 main headings, the Applicants listed 94 individual tasks, although precise timings for these tasks were not included. The Commission notes that the Applicants placed the following notation over the top of their list of tasks:

> This list is only indicative of issues to be resolved. Timeline has not been developed. Sequencing has not been determined. Sequencing may not be series but parallel and iterative.

328. On 14 April 2003, the Commission sought additional information that would provide a better estimate of the Applicants' view of the likely time required to develop Pohokura under Scenario 1. The Applicants provided its revised separate marketing timetable on 26 June 2003, four working days prior to the Conference[67], leaving the Commission with little time to test the information with other parties in any meaningful way. In deciding what weight the Commission can place on this additional information it has taken into account the following factors:

- the revised timetable is considerably longer than was first presented to the Commission in the Application. Although the Applicants had initially claimed that their original best estimate of the delay under a Scenario 1 situation of three years was conservative, the revised estimate is now of a six year delay;
- the Applicants themselves advised the Commission that 'estimating the duration of activities for which there is no precedent available anywhere is highly speculative and uncertain';
- although the Applicants have been able to provide corroborative information from independent parties for some of their claims[68], they have not been able to provide similar supporting evidence on the quantification of the likely length of time delay under Scenario 1;
- Shell, in particular, has a parent company with extensive experience in joint ventures around the world, including separate marketing arrangements. Although the Commission accepts that the current New Zealand situation may be quite different from overseas experiences, it would have found it useful if Shell had used some of its overseas experience to provide a more detailed quantification of any likely time delay;
- AWE advised that, in relation to the Yolla project, the GBA took between 6-9 months to put together; and
- Shell owns 34% of Woodside, a company which is party to the proposed separate marketing of the Geographe/Thylacine gas fields in Australia. The Commission notes that as a part owner in Woodside, presumably Shell would have considered similar issues in Australia to those currently before the Commission.

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[67] Submissions on the Commission's draft determination were due on 9 June 2003. The Applicants submission was received on 11 June 2003, and the timing information as described in paragraph 5.4 of its submission was provided Commission on 24 June 2003.

[68] In particular, Westpac Banking experts have supported the Applicants views on the difficulties they would face in obtaining financial approval in certain circumstances; Mr Agostini has supported various views on the Australian situation; and CRA has provided supporting views on a number of economic issues.

329. The Commission also notes that although the timing for resolution of some issues would be dependent on interaction with external parties (i.e. obtaining external finance to bank the project), the majority of the issues are within the control of the JV parties. The Australian examples of separate marketing are perhaps evidence of what can be achieved when joint venture parties are committed to resolve outstanding issues that may delay a new gas production venture.

330. The Commission acknowledges that in the Applicants' submission on the draft determination, they have provided further arguments on the difficulties they would face if required to separately market gas from the Pohokura field. However, the Applicants have not provided a breakdown of what each of these tasks are, and, more importantly, did not provide evidence to support their assertions of how and why these additional tasks would add six years to the time required to develop Pohokura. The absence of conclusive and precise information or independent verification of the Applicants' claims means that the Commission is unable to place much weight on these claims.

331. The Commission conducted an informal survey of AIPN members in an attempt to understand the likely difference in timing involved with separate marketing. The information received from this survey indicated that any delay could range from six months to two years. The Commission notes the Applicants' concerns about the reliability of the information obtained from the survey and acknowledges that the survey was not scientific and that the respondents were unlikely to be familiar with the characteristics of the New Zealand market. However, the survey respondents have experience of jurisdictions in which separate marketing is a feature of the market. Consequently, their views provided some useful information for the Commission to consider although, the Commission has not placed significant weight on this evidence.

332. The Commission acknowledges that any requirement to separately market gas under Scenario 1 might result in some delay to the development of Pohokura, compared to the time required to bring the field to production under the JV. After considering the submissions from the Applicants and other interested parties relating to the potential delay resulting from separate marketing, the Commission accepts that the period of time required to reach full production of Pohokura under Scenario 1 conditions is uncertain and difficult to estimate.

333. The Commission notes that many of the additional tasks that might be required can be conducted concurrently, the amount of time required is largely under the control of the JV parties, and there is considerable incentive for the parties to develop Pohokura quickly. On that basis, and in view of the submissions received from all interested parties, on the balance of probabilities, the Commission does not consider that any delay would be lengthy and therefore adopts a delay of one year.

Output

334. The Applicants have stated that the production of gas from the Pohokura field could be at the rate of 70 PJ per annum from about the second quarter of 2006. This figure was derived in part from field evaluations to date, and the Commission has adopted it as a reasonable estimate of future production with the Arrangement.

335. However, the actual rate of off-take remains to be determined by the Pohokura JV parties. It will depend on the amount of product in the field, the physical characteristics of the field, and the Pohokura JV parties' assessment of future prices for gas, oil and condensate. It can reasonably be expected that the parties would each attempt to maximise the value of their investment in the field when choosing the level. Under the Arrangement the Pohokura JV would be likely to consult with prospective purchasers prior to determining output.

336. In the counterfactual, output would also be decided jointly, but the means of getting there would be different. The individual Pohokura JV parties would be likely to undertake separate marketing campaigns to determine how best (or most profitably) they can meet demand. As purchasers would have some ability to play off the parties against each other, the incentive for each party to meet the requirements of purchasers in respect of output, price and conditions may be stronger than with the Arrangement. In the counterfactual each party may also seek to coordinate its marketing of gas from the Pohokura field with that of gas from other fields to which it has entitlements. Together these factors are likely to mean that the factors in play when the parties meet to jointly determine output in the counterfactual would vary from those applying with the Arrangement.

337. Consequently, the Commission considers that production (rate of off-take) from the Pohokura field may differ between the Arrangement and the counterfactual. While this difference may not be large as the physical characteristics of the field will of course be unchanged between the scenarios, and this is perhaps the most important factor in determining production levels, it could nevertheless be significant. Further, the Commission cannot be certain whether the production levels would be higher or lower in the counterfactual, although on balance, and having regard to the different incentives, it considers that there may be a greater likelihood of higher production in earlier years in the counterfactual.

Conclusion on the Counterfactual

338. The Commission is of the view that on the balance of probabilities, the counterfactual would have the following characteristics:

- the Pohokura JV parties will negotiate and agree on the development profile and gas output of the field;
- the parties will then separately sell their proportion of the gas in line with their equity ownership of the field;

- the parties will negotiate and agree on measures to address the associated problems with separate marketing; and
- production of the Pohokura field will be delayed by one year from the February 2006 commencement date, to February 2007 for first gas, and the end of June 2007 for full production capability.

COMPETITION EFFECTS

339. The Commission has assessed the competitive effects of the Arrangement by comparing competition in the relevant market with competition in the counterfactual.

Existing Competition

Current Ownership

340. Ownership of gas production fields is currently highly concentrated with Shell's equity share of current gas production amounting to around 62% of total production, Todd 20% and OMV 6%. Collectively the Pohokura JV parties account for around 88% of current production.

Table 5
Share of Natural Gas Reserves* in Current Production Fields at 30 June 2002

Producer	Field Interests	Remaining Reserves (PJ)	Total Reserves (%)
Shell	Maui, Kapuni	666**	55
Todd	Maui, Kapuni. McKee, Mangahewa	371**	31
OMV	Maui	57	5
Swift	TAWN, Rimu	110***	9
Greymouth Petroleum	Ngatoro, Kaimiro	1.2	Negligible
Petroleum Resources	Ngatoro	0.8	Negligible
Australia and NZ Petroleum	Ngatoro	0.6	Negligible
Ngatoro Energy	Ngatoro	0.2	Negligible
Total		1207	100

*The figures are based on reserves quoted in billion cubic feet ("bcf") on the MED Crown Minerals website. To calculate a figure in PJ, each figure was converted to million cubic metres and then multiplied by the average annual gross calorific values for each field (from the MED Energy Data File, January 2003). The reserves figures were quoted at 50% (proven plus probable) probability of recovery levels.
** The figures for Maui include the ERR (352 PJ) plus a Commission estimate of reserves recoverable outside of the contract price (215 PJ).
***Conversion from bcf to PJ for Rimu provided to the Commission by the MED at 1 PJ = 1.0546 bcf

Gas committed to meeting contracts

341. A feature of the gas market in New Zealand is that it is a 'contracts' market rather than a 'commodities' market. That is, transactions are given effect by buyers and producers entering into contracts for extended periods for large quantities of gas. As the numbers on both the supply and demand side are small, transactions occur only infrequently.

Current Demand

342. As referred to earlier in this Determination, the major users of gas in New Zealand are the electricity generation sector, the petrochemical sector (engaged in methanol and ammonia urea production) and 'reticulated' customers (comprising industrial, commercial and household sectors). For the year ended 30 September 2002, electricity generation, including co-generation, accounted for around 40% of gas consumption, petrochemicals (principally methanol) accounted for around 42% and most of the remaining 18% went to reticulated customers. However, for the current calendar year these ratios are likely to change significantly as Maui production declines and the amount of gas available to the petrochemical sector in particular falls as a result. The Commission expects that for the 2003 calendar year the approximate ratios will be: electricity generation 52%; petrochemicals 24%; and reticulated customers 24%.

New Entry

343. A necessary requirement for new entry into the gas market is the discovery and development of new gas fields. Factors affecting entry into the exploration market are therefore very relevant to future competitive conditions.

344. Entry into the petroleum exploration market is subject to a number of regulatory approvals. The licensing regime is discussed above in paragraphs 131 to 136.

345. In Decision 408, the Commission concluded that the need to obtain permits did not appear to be a major barrier to new entry.[69]

346. As discussed in paragraph 137, the current level of exploration in New Zealand is considered high by Crown Minerals, with 14 wells drilled in 2002 and several discoveries in the last three years. In New Zealand currently there are 69 exploration permits and 11 mining permits operating.

347. Crown Minerals is of the view that New Zealand is increasingly regarded internationally as a favourable place for investment in oil and gas exploration and development:

> New Zealand has moved up to 14th most attractive country in the world for petroleum exploration investment, according to a 2002 international survey by IHS Energy Group.

[69] Decision 408, paragraph 259.

> The IHS Petroleum Economics and Policy Solutions (PEPS) Ranking and Rating Index places New Zealand 14th out of 103 countries for the September quarter of 2002 — up from 19th a year earlier. New Zealand's standing has improved steadily over the previous three years from 36th place in 1999.
>
> The latest IHS total ranking placed New Zealand third in the world for lowest political risk, and 19th in fiscal rank — which reflects how government taxes and royalties affect investment returns. The largest gain in 2002 was in exploration and production ranking where New Zealand moved up to 33rd from 40th place in 2001.[70]

Future Gas Discoveries

348. The likelihood of future gas discoveries are discussed in paragraphs 147 to 149 above. As noted there, the MED has informed the Commission that in the proposed update of its New Zealand Energy Outlook to 2020, it will use the following assumptions:

- for years 2008-2013 an average of 35 PJ of new gas per annum will be brought into production; and
- for years 2014 onwards an average of 60 PJ of new gas per annum will be brought into production.

The Commission recognises that forecasting the amount of new gas in future years is extremely difficult and that this difficulty increases with the period of the forecast. The MED figures suggest that total gas supplies when Pohokura is depleted in around 2020 may be as little as 77 PJ (see

349. Table 8 below). However the Commission considers that it is at least as likely that pending gas shortages of that magnitude would increase gas prices sufficiently to attract a greater level of exploration and that this would lead to a higher level of production than the MED is forecasting.

350. For the purpose of the public benefit analysis below, the Commission has considered both a scenario which includes the MED's figures for new production and a scenario based on the proposition that gas from new fields will be sufficient to maintain total gas production (from new and existing fields) at a level of 175 PJ per annum from 2010 onwards. Production of 175 PJ would be at or below production levels for each of the past 15 years. The Commission considers that it is a reasonable, and possibly conservative, upper bound of future production possibilities.

Impact of the Arrangement on Competition

351. The Commission considers that the Arrangement will mean that gas from the Pohokura field will be marketed by one entity rather than three in the counterfactual scenario. This position is criticised by the Applicants in their submission on the draft determination. The Applicants stated in respect of this view, "(t)his is a key point and it is not correct. The implications that flow from

[70] MED Crown Minerals website: www.med.govt.nz/crown_minerals/petroleum/overview.html.

the misunderstanding about this point are critical in the analysis of this application"[71]. While the Commission does not accept this comment, it agrees with what it understands was the general point being made by the Applicant; that is, that the mere fact that the Arrangement would limit the marketing of gas from the Pohokura field to one entity is not sufficient in itself to determine the competitive impact of the Arrangement.

352. The Commission accepts as a general proposition that competition is enhanced by more competitors entering the market. Conversely, any market power is generally increased by a reduction in the number of competitors. However, to test this proposition, there is a requirement to assess the proposal under consideration, and to measure it against the counterfactual.

353. Most major gas users have expressed concern to the Commission that, in the highly concentrated gas market, the joint marketing of gas from the Pohokura field would have the effect of foreclosing an important level of potential competition in the market. They have suggested that this would be particularly harmful because the Pohokura field is likely to be the predominant source of gas for much of the next decade, as Maui and other fields are approaching depletion. In addition, most of the gas from other major fields is committed to particular projects under long-term contracts. Thus in the near future Pohokura is the only known gas field which would appear to be able to provide sufficiently reliable gas supplies to meet the gas supply requirements of a significant new user such as a new combined cycle gas turbine electricity generator on the scale of TCC or Otahuhu B (say around 20 PJ per annum), or a new entrant in the petrochemical sector[72].

354. The matters of principal relevance to this assessment of the competitive impact are considered separately below.

Constraints from Current Competitors

355. Of gas being produced at present, around 88% comes from fields owned by Shell, Todd and OMV. Only one other producer (Swift with 10% of current production) can be regarded as a major producer at present.

356. Gas is currently in short supply in New Zealand. At current prices (which in the main have been set in long-term contracts signed before concerns about the early depletion of the Maui field were raised) demand greatly exceeds supply. Major new electricity generation projects (e.g. new combined cycle plants proposed by Genesis and Contact) have been put on hold because of difficulties in obtaining reliable gas supplies.

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[71] Applicants'submission, 9 June 2003, paragraph 2.5.1.

[72] The Dominion Post reported on 24 April 2003 that Methanex needed about 20 PJ of gas a year to run the Waitara plant at full capacity and 33 PJ of gas for each of the two plants at Motonui. Ballance's ammonia urea plant currently takes around 7 PJ.

357. Further, of the discovered fields which have yet to be developed, only Kupe has known reserves in excess of 100 PJ, and it appears that it is likely that Kupe will be relatively costly to develop and to bring the gas to market. As noted in paragraph 348, the MED is proposing to assume that new gas production from new fields will average 35 PJ per annum from 2008-2013 and 60 PJ per annum from 2014 onwards (although as noted above the Commission considers that these figures may be unduly conservative). In any event, new discoveries of a significant scale are likely to take several years to develop. As an indication of development time, the Pohokura field is likely to take 6 years from discovery to production and the field is generally regarded as being relatively straight-forward to develop because it is of a significant size and is close to shore and existing infrastructure.

358. Having regard to the ownership of current production fields, the current supply and demand situation, and the very limited potential for significant new gas fields to be brought into production in the short-term, the Commission has concluded that the owners of the Pohokura field would not face an effective competitive constraint from other gas producers before the end of the decade.

Price Effects

359. Oral and written submissions made to the Commission by many of the major gas users have suggested that joint marketing of gas from the Pohokura field would, in comparison with separate marketing, lead to higher prices for that gas and fewer options being offered on non-price terms. In addition, there were claims that price discrimination would be a more common feature with joint marketing and that this could have anti-competitive consequences.

360. The Applicants argue that as the output of the field would be determined jointly in the counterfactual (and would likely be no different from the Arrangement on a yearly basis), there can be no detrimental impact on prices from joint marketing. CRA on the Applicants' behalf stated in a submission:

> Joint agreement on quantities and rates would mean that the share of each joint venture party is fixed. Accordingly, a price cut from the market-clearing price for the total quantity could only result in lower revenue. In other words, there would be no gain to a joint venture party in trying to undercut the other joint venture parties, as it could not gain any of their market shares, at least with respect to that field. This is in contrast to the situation in most other markets, where a firm could expect to gain market share from its competitors by cutting price.[73]

361. At the Conference, Professor Evans, for the Applicants, emphasised that the factual and the counterfactual are very close in terms of their competitive effects. He noted that the comparison was not between a competitive scenario and a monopolistic scenario. He described the counterfactual as an extremely constrained scenario and stated that the only degree of latitude that separate marketing provides individual Pohokura JV parties is in the pricing of contracts.

[73] CRA Report, paragraph 5.4.2.

He further noted that this latitude is largely illusory because the parties almost certainly have to agree on a transfer price (for the purpose of the balancing) and this process would reveal the contract prices and result in commonality of prices.

362. Professor Evans noted that ultimately the contract prices will depend on the characteristics of demand as well as supply. He suggested that it may be that supply from the field would be greater under joint marketing (because of greater production flexibility and efficiency achievable in that scenario).

363. Professor Evans said that there could still be some price differences between the Arrangement and the counterfactual, although he said that the differences would be quite minor.

364. Further, Professor Evans argued price discrimination in respect of gas from the Pohokura field is at least as likely under separate marketing as under joint marketing. He suggested that under joint marketing the 'participant tensions' within the JV would limit its ability to engage in price discrimination, whereas under separate marketing there is, for example, a much higher likelihood of any party entering a special deal with their own downstream interests. He noted that price discrimination would be limited by the ability of purchasers to resell the gas, and this is more likely with joint marketing. In addition he suggested that as the field output produced and consumed is invariant between separate and joint marketing, prices will clear the market whether or not there is price discrimination, in which case the static efficiency of the two forms of marketing would be the same.

365. At the Conference, Mr Houwers of Ballance suggested that the Applicants' claim that separate marketing would lead to a loss of field value is in itself indicative of higher prices being possible with joint marketing. He noted that separate marketing would not affect the amount of gas produced from the field so, he argued, the only place the field could lose value is in the price of gas. Therefore the Applicants, by stating that there would be a loss of field value with separate marketing, were effectively acknowledging that joint marketing would allow higher prices to be charged. The quantum of the loss of field value, claimed by the Applicants as arising from separate marketing, therefore reflected the extent to which prices would be higher with joint marketing. Using a figure for loss of field value of $5 million a month[74] (which OMV had indicated was one possibility) and a 7 year delay, Mr Houwers suggested that the price increases in the joint marketing scenario would amount to $420 million, or about 60 cents per gigajoule.

366. The Commission does not accept the underlying assumption on which Mr Houwers' assessment appears to be based – that any loss of field value arises only from an inability of the Pohokura JV under separate marketing to obtain the high

[74] At the conference, Mr Salisbury indicated that this figure was one possibility, but was at the upper end of the range of numbers he had seen.

prices possible with joint marketing. While the Commission does not put any weight on the figure of $5 million a month for the loss of field value (that amount was put forward by Mr Salisbury of OMV as being at the upper end of the range of numbers he had seen - and he offered that he did not particularly believe any of them), it recognises that a delay in the development of the field would result in additional costs being incurred and the income stream being depreciated in value. Both these factors would cause a direct loss of field value, and are unrelated to any pricing impact of joint marketing.

367. Accordingly, the Commission does not accept Mr Houwers' assessment that joint marketing would increase prices by 60 cents per gigajoule.

368. Contact suggested that joint marketing could lead to higher gas prices than with separate marketing, although the Commission understood from its submissions that its principal concern in respect of prices lay with the possibility that with joint marketing, the Pohokura JV may be able to extract higher prices from those willing to pay more for gas. (Contact suggested that the Commission should address this concern by imposing a condition on any authorisation which prohibits on-sale restrictions in gas contracts).

369. NGC at the Conference suggested that under separate marketing, the three Pohokura JV parties may have different views on forward price curves and this could lead to different prices being offered in that scenario. However, Dr Hodgson for NGC accepted that in general, prices would tend to be similar in the Arrangement and in the counterfactual, although he suggested that joint marketing may have price effects at other fields.

370. The Commission acknowledges that as in any market, including markets in which competition is constrained, the principal determinant of gas prices is the supply of gas in relation to demand at any time. The Commission considers that for the reasons described above, there is some potential for the rate of output to differ between the Arrangement and the counterfactual, although it is difficult to be certain in which direction this difference would lie. However, it considers that the difference would be small and consequently the impact of the difference on prices would be small.

371. Further, the Commission accepts that in the counterfactual, the Pohokura JV parties would be likely to co-ordinate their non-marketing activities. None of them would be able to unilaterally increase its share of the output of the field or change the timing of the uptake of gas. The Applicants have also argued that an efficient balancing arrangement, which would be necessary for separate marketing, would require each party to be aware of the prices being achieved by other parties.

372. Nevertheless, the Commission considers that separate marketing in the counterfactual would offer different dynamics to negotiations between the buyer and the seller. Within limits, buyers would have choices not available to them

with the Arrangement. In addition, the Arrangement has some potential to result in slightly higher prices than would be the case in the counterfactual.

373. The Commission considers that there is a possibility that joint marketing will facilitate price discrimination. The Commission notes that the Pohokura JV may be able to charge users different prices based on their ability to pay, whereas with separate marketing each party would be likely to seek to sell to those users until the 'excess' had been competed away.

374. Professor Evans argued that price discrimination can occur in both competitive and monopoly markets, and that it would be at least as likely under separate marketing as under joint marketing. Further, he noted that as output and consumption would be the same under both scenarios, the static economic efficiency of the two forms of marketing would be the same.

375. In its written submission to the Commission, CRA stated that it understood that the Pohokura JV parties intend to tender or auction the first tranche of gas from the Pohokura field rather than sell it by negotiation. At the Conference, Professor Evans noted that the process of tendering would reveal demand. The Commission accepts that in these circumstances it may be that concerns about the potential for harmful price discrimination would be assuaged. However, the Commission considers that CRA's understanding of the Applicants' intention to use a tender or auction process is not a sufficiently strong basis for concluding that anti-competitive price discrimination would not occur.

376. The Commission does not agree that the potential to price discriminate would be unaffected by joint marketing. Rather it agrees with the submission of Contact that in a joint marketing scenario, the Pohokura JV parties could more effectively target parties they identify as being willing to pay more for gas. Under a separate marketing scenario all sellers would similarly target the purchasers willing to pay the highest price, but competition between the sellers would be more likely to lead to downward pressure on prices to a level just greater than the price that the next level of purchasers would be prepared to pay.

Conclusion on the Price Effects of Joint Marketing

377. The Commission concludes, on the balance of probabilities, that the Arrangement would result in gas prices being higher, on average, than they would be in the counterfactual. This would result because joint marketing would shift the relative bargaining strength of buyers and sellers in favour of the seller and because it would facilitate, to some extent, price discrimination.

378. The Commission accepts, however, that there would be a high level of co-ordination between the parties in the counterfactual. In these circumstances the impact of joint marketing on prices may be moderate, but significant.

Impact on Terms and Conditions

379. In its submissions, Contact suggested that joint marketing would lead to a lesser range of terms and conditions being available to buyers. It stated that it was concerned that under joint selling the Pohokura JV parties could impose high "take" obligations with minimal flexibility and high prices, and prohibit or significantly restrict the ability of buyers to on-sell gas, and could also pass reserve risk to buyers who are not well placed to manage the risk efficiently.

380. Ballance in its submission cited security risk, force majeure conditions, right to on-sell gas, delivery options for non-specification gas, and onerous take requirements as matters about which the buyer may be disadvantaged with joint selling. It suggested that under joint marketing the conditions being offered would have to be acceptable to all the Pohokura JV parties and would therefore be at best a compromise, or at worst structured to the highest common risk profile of the Pohokura JV parties in terms of their individual drivers.

381. The Applicants submitted that terms and conditions would be determined in the same way under joint marketing and separate marketing, and that with separate marketing there would be less contractual flexibility and variation as the terms and conditions would be set jointly before "going out to market" and therefore there would be less ability to respond to demand-side preferences. In addition, the Applicants argued that in comparison with the Pohokura JV under joint marketing, individual Pohokura JV parties in the separate marketing scenario would have less gas available to them and therefore would not have the flexibility necessary to be able to offer a full range of terms and conditions.

382. The Commission considers that in this instance, some of the arguments made by both sides have some validity. With joint marketing the Pohokura JV would have the scale necessary to offer a wide range of terms and conditions. However, whether it would choose to do so is uncertain. Further, the ability under joint marketing of each Pohokura JV party to effectively veto any term or condition which does not fit into its perception of what is best for the Pohokura JV, could lead to something of a lowest common denominator approach to determining what terms and conditions would be offered to prospective purchasers. On the other hand, the Commission considers that separate marketing would be likely to lead to a more dynamic environment which generally produces greater choice. There will be more pressure on supplier to respond to demand side preferences in order to attract the most desirable contracts.

383. Taking the above factors into consideration, the Commission considers that the range of terms and conditions on offer would be more limited with joint marketing than in the counterfactual. The coordination necessary in the counterfactual may have a significant impact on the ability for price differences, but less of an impact on the ability for terms and conditions to be different under the counterfactual. The Commission considers that the difference would be important.

Impact on the Future Development of a More Competitive Market

384. The Minister of Energy has suggested that in the future, gas supply is expected to come from a larger number of smaller fields than at present[75]. The Minister has also stated:

> Enhanced wholesale market arrangements are needed to enable the efficient operation of the more complex gas supply market post-Maui, involving production from a wider number of fields. The development of market institutions raises technical issues that require detailed information and market understanding. The gas industry is best placed to develop market arrangements that meet these requirements.[76]

385. The Minister's comments followed the ACIL Review[77] which noted that current arrangements are inadequate for future markets with more diversified supplies of gas and that the current arrangements will increasingly create inefficiencies as Maui declines.

386. The ACIL Review noted that New Zealand is a very small market by international standards and it is unlikely to be able to support the infrastructure seen in large overseas markets. However, the ACIL review also noted that some form of gas spot market, involving trading at a logical hub in the system, appropriate for New Zealand circumstances, would, if it developed, be likely to bring with it significant economic efficiency benefits. Those benefits include supporting entry of new gas producers, who would have alternative options for the marketing of gas. The ACIL review also stated:

> Given the small size of the New Zealand market, how quickly the spontaneous development of a gas spot market will occur is not clear. There is a case for explicit consideration and nurturing of a gas spot market.
>
> New Zealand has successfully developed its electricity spot market on a voluntary basis and this model of industry decision-making could possibly be adopted for the gas industry.[78]

387. Essentially all parties accepted that the gas market requires more depth to support an infrastructure, including a spot market, necessary for the development of a truly competitive market. The Applicants and some others, including PEANZ, argued that this depth requires more gas fields and that a Commission decision to disallow joint marketing would act as disincentive for new exploration and would therefore lessen the likelihood of new fields being developed. On the other hand, other parties, including Contact, while agreeing that new fields were necessary to give the market depth, suggested that what was also important was the number of sellers. A decision by the Commission to authorise joint selling would mean the

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[75] Gas Sector Review – Paper 1, from the Ministry of Energy to Cabinet Economic Committee, 6 November 2002.
[76] Gas Sector Review – Paper 2: Minister of Energy to Cabinet Economic Committee, 6 November 2002.
[77] ACIL Consulting. Review of the New Zealand Gas Sector – A Report to the MED, October 2001, p.xii.
[78] ACIL Consulting, section 4.8.5.

number of sellers of gas from the Pohokura field would be reduced from three to one.

388. The Commission considers that both an increase in the number of sellers and an increase in the number of production fields are important to the development of a competitive environment in the future. An authorisation in this instance would reduce the number of sellers of gas from the Pohokura field, albeit not the number of production fields. The significance of this is likely to be greater because Pohokura is likely to be the most important source of gas in the foreseeable future.

389. In support of the Applicants' argument, CRA suggested that because separate marketing in New Zealand conditions increases risk and decreases field value, a requirement that gas producers separately market would reduce the incentive on explorers to enter the market. PEANZ made similar comments at the Conference.

390. The Commission does not accept that a decision to decline the current application would have more than a minimal impact on the level of new gas exploration. The current level of exploration is described by Crown Minerals as high, and this has occurred presumably in the knowledge that New Zealand competition law prohibits arrangements, including joint marketing arrangements, which substantially lessen competition in a market, unless they have been authorised by the Commission. Further, the Commission considers each application for authorisation on its merits. Potential explorers who may wish to jointly market any gas they find would recognise that they would not be prevented from doing so if joint marketing in the circumstances applying at the time did not lessen competition in a market.

391. While it is axiomatic that any additional cost faced by new entrants act as a disincentive to entry, the Commission considers that the scale of these additional costs, in comparison with the potential rewards, would not be likely to be sufficient to make a viable field non-viable.

392. In conclusion, the Commission accepts that the development of new gas fields is the primary prerequisite for enhanced competition in the future. However also of importance to the future competitive environment is the number of sellers in the market, including the number selling from each field. By reducing the number of sellers of gas from the Pohokura field the Arrangement could have a material impact on the prospects of competitive market conditions developing at an early date.

Overall Comparison of Competition in Proposal and in Counterfactual

393. Having considered all the written and oral submissions made to it, the Commission has concluded that the Arrangement would be likely to lessen competition in comparison with the counterfactual. Under the Arrangement there would be fewer sellers than would otherwise be the case in what is a highly

concentrated market. Further, the Arrangement would be likely to shift the relative bargaining strength of buyer and seller of gas from the Pohokura field in favour of the seller. The Arrangement would also increase the potential for price discrimination. The range of terms and conditions available to buyers would also be likely to be reduced. Further, the Arrangement would lessen the potential for the early development of a spot market and other features which would facilitate more effective competition in the future.

394. The Commission has recognised that in the counterfactual there would be a high level of co-ordination between the parties and that there would not be a large difference between the Arrangement and the counterfactual in the output of gas from the field. In these circumstances the loss of competition is much less than would otherwise be the case. Nevertheless, for the reasons set out above and on the balance of probabilities, the Commission considers that the Arrangement would lessen competition to a material extent.

395. Having concluded that the Arrangement would lessen competition in a market, the Commission has jurisdiction to make a determination on the application in terms of s 61 of the Act.

PUBLIC BENEFITS AND DETRIMENTS

396. Having concluded that the Arrangement would result in a lessening of competition in a market, the Commission must consider whether the Arrangement will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening in competition that would result, or would be likely result, or is deemed to result therefrom.

General Approach

397. The authorisation procedures require the Commission to identify and weigh the detriments likely to flow from the Arrangement in the relevant markets, and to balance those against the identified and weighted public benefits likely to flow from the Arrangement. Only where the benefits clearly outweigh the detriments can the Commission be satisfied that the Arrangement will result, or be likely to result, in such a benefit to the public that it should be permitted, and thus be able to grant an authorisation.

398. The principles used by the Commission in evaluating detriments and benefits are set out in *Guidelines to the Analysis of Public Benefits and Detriments,* a revised version of which was issued by the Commission in November 1997. The various issues raised have been discussed in a number of decisions by the Commission and the Courts in previous years. In assessing both benefits and detriments the

focus in those decisions has increasingly been on economic efficiency. For example the Court of Appeal in *Tru Tone Ltd v Festival Records*[79] that the Act:

> …is based on the premise that society's resources are best allocated in a competitive market where rivalry between firms ensures maximum efficiency in the use of resources.

399. The Commission considers that within the relevant markets, a public benefit is any gain, and a detriment is any loss, to the *public* of New Zealand, with an emphasis on gains and losses being measured in terms of economic efficiency. In contrast, changes in the distribution of income, where one group gains while another simultaneously loses, are generally not included because a change in efficiency is not involved. The Commission is also mindful of the observations of Richardson J in *Telecom Corporation of New Zealand Ltd v Commerce Commission* [80], on the Commission's responsibility to attempt to quantify benefits and detriments to the extent that it is feasible, rather than rely on purely intuitive judgement. This is not to say that only those gains and losses which can be measured in dollar terms are to be included in the assessment; those of an intangible nature, which are not readily measured in monetary terms, must also be assessed.

400. The benefits that are likely to flow from the Arrangement in the future have to be assessed against a counterfactual of what might otherwise happen in the future in the absence of the Arrangement. Thus a comparison has to be made between two hypothetical future situations, one with the Arrangement and one without. The differences between these two scenarios can then be attributed to the impact of the Arrangement in question.

Detriments

401. Potential detriments are normally assessed under the following three headings - allocative, productive and dynamic efficiency.

Allocative Efficiency

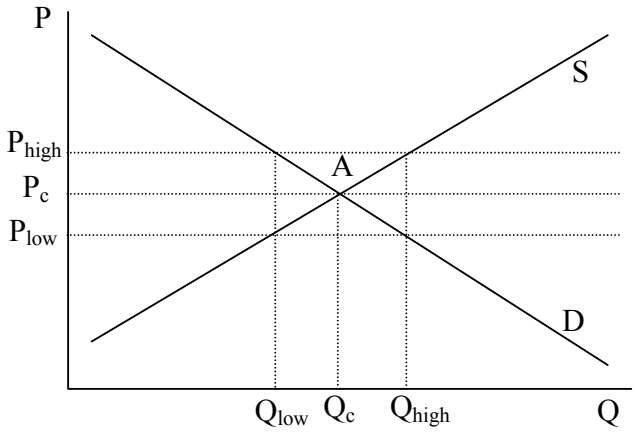
402. Subject to certain exceptions, the economy's scarce resources are allocated between alternative uses with maximum economic efficiency when, in any given market, the additional cost of producing the last unit of the good or service equals the price which a buyer is prepared to pay for that unit. Using economic theory, that optimum point is found where market demand equals market supply. Using the general market diagram shown in Figure 1, the intersection at point A of the competitive demand (D) and supply (S) curves for a particular product determines the optimum price and output of P_c and Q_c respectively.

403. An output higher than this, such as at Q_{high}, would be less than optimal as the social valuation of the good, as determined by the price a consumer is prepared to

[79] *Tru Tone Ltd v Festival Records,* (1988) 2 NZLR 351.
[80] *Telecom Corporation of New Zealand Ltd v Commerce Commission* (1992) 3 NZLR 429,447.

pay for it, as indicated by the demand curve, would be less than the sacrifice that society would make in producing that extra unit, as revealed by the supply curve. Similarly, at a less than optimal output, the reverse would apply; the social valuation of the good would exceed its social cost, indicating that more units should be produced.

Figure 1
A Generalised Competitive Market Model



Productive efficiency

404. A firm increases productive efficiency when it reduces costs. In terms of Figure 1, an improvement in productive efficiency by suppliers would be reflected in a downward movement of the supply curve.

405. A producer who enjoys a position of market power is normally considered to lack the competitive pressures to remain efficient in production, and to produce at minimum cost. Organisational slack may creep into its operations, bureaucracy may expand, principal-agent problems may arise, salaries may become inflated, and waste may occur, because a satisfactory level of profit is assured even when the firm is less than fully efficient. As a result, costs in general may increase. The increase in costs is a measure of the value of the resources being wasted, which in turn indicates the value of the output foregone by the economy as a whole from those resources not being employed productively elsewhere. It is this loss of output, measured by the higher costs, that is the social loss arising from an increase in productive inefficiency.

Dynamic Efficiency

406. Dynamic efficiency is concerned with the speed with which an industry adopts superior new technology and produces improved new products. The first brings advances in productivity allowing costs of supply to be reduced, and the second brings the benefit of meeting buyer wants more fully, both evaluated over time.

In terms of the graphical analysis used above, product innovation would be reflected in a rightward shift of the demand curve, indicating a greater 'willingness to pay' of buyers for the improved products, whilst the lower costs associated with production innovation would be revealed by a downward shift in the unit cost curve.

407. Competition is generally considered to act as a stimulus to dynamic efficiency, and market power and regulation as retardants. It is generally believed that in an industry which has at least a significant scope for technological advance, the potential losses associated with market power are likely to be greater in the longer term in respect of dynamic inefficiency than they are in respect of the static forms of inefficiency (namely, allocative and productive) considered above. This is because of the loss of the compounding effect of the improvements over time.

Benefits

408. Benefits, to qualify as such under an authorisation, must adhere to the following criteria:

- they must be efficiency gains;
- have a clear nexus with the Arrangement; and
- not be obtainable under the counterfactual.

Quantification of Benefits and Detriments

409. In the Court of Appeal decision in the *AMPS-A* case, Richardson J stated:

> The third [observation I wish to add] is the desirability of quantifying benefits and detriments where and to the extent that it is feasible to do so. The Commission encourages applicants to quantify anticipated public benefits. In this case certain major efficiency gains were quantified for Telecom…While both the Commission and the Court did not accept elements in that quantification, both bodies considered that there would be significant efficiency gains if Telecom had management rights over both AMPS-A and AMPS-B. In those circumstances there is in my view a responsibility on a regulatory body to attempt as far as possible to quantify detriments and benefits rather than rely on a purely intuitive judgment to justify a conclusion that detriments in fact exceed quantified benefits.

410. In this instance, the Applicants submitted that there would be considerable benefit from enhanced efficiencies and, in particular, from the early production from the Pohokura field. Their quantification focussed on the benefits arising from early production. They noted the other benefits were likely to be smaller in magnitude and harder to quantify. They also submitted that there would be no loss of competition from the Arrangement, and accordingly there would be no detriment to quantify.

411. In its quantification below, the Commission focuses on the benefit from early production. This is the issue which the Applicants consider provides the greatest benefit, and the Commission signalled in its draft determination that its view on

this may be critical to the outcome of the Application. Other benefits and the detriments are very difficult to quantify with any precision in this case, in part because they would mainly arise well into the future and quantification would necessarily involve a much higher degree of speculation than is desirable. The Commission sought advice from interested parties as to how it might quantify these benefits and the detriments in a useful way in these circumstances, but nobody was able to provide a satisfactory suggestion.

412. Accordingly, the Commission has not found a fully reliable means of quantifying some detriments with precision. Consequently these detriments are described below rather than given a monetary value.

The Applicants' Quantification of Detriments and Benefits

413. The Applicants submitted that joint marketing did not have the effect of lessening competition in a market. Further they submitted that joint marketing did not give rise even to theoretical detriment under s 30 of the Act by virtue of the joint venture price fixing exemption. Accordingly, they consider that no competitive detriment should be attributed to the Arrangement.

414. This argument was supported by Professor Evans at the Conference. He argued that separate marketing cannot be expected to improve competition among the Pohokura JV parties in the market over that of joint marketing, because prices are likely to be similar, off-take of the field very similar, and that while price discrimination may occur under each form of marketing, there is no basis for suggesting that there would be any detriment from joint marketing.

415. The Applicants stated that the public benefits that accrue from the Arrangement, when compared with the counterfactuals they nominated, arise from:

- the avoidance of delay in the development of the Pohokura field;
- significantly lower production and transaction costs;
- optimal pool depletion;
- increased exploration incentives; and
- reduction in adverse effects on the environment.

416. The CRA report with the Application limited its quantification to the public benefits that accrue from the earlier development of the Pohokura field and the consequential earlier production of gas from the field. The Application noted that the other benefits identified are either more difficult to quantify, or are likely to be smaller in magnitude, although CRA considered them to be significant.

417. CRA measured the effect of the delay in the development of the Pohokura field by adopting a three year delay and measuring the discounted value of the sum of the (net) lost consumer and producer surplus in the gas market from such a delay. It undertook a sensitivity analysis using a range of scenarios.

418. CRA's assessment of the net present value of the welfare loss in its base case was $204.1 million, while its scenarios ranged from a low of $97.9 million to $451 million. These calculations were based on the assumption that if joint marketing was not authorised, production from the field would be delayed from 2004 to 2007. However as the Applicants pointed out in their letter to the Commission dated 21 March 2003, even with an authorisation, production from the Pohokura field is now not expected to commence until February 2006. Further, the Applicants pointed out that they have now agreed not to pursue the staged development concept envisaged in the Application, but rather to supply at an annual rate of up to 70 PJ almost from the time production commences. In addition there were other factual changes not factored into CRA's initial modelling, including the lower projected level of Maui reserves assessed by the independent expert following the re-determination process.

419. Subsequently, the Applicants and CRA argued that the early production of condensate and LPG from the Pohokura field should also be included in the assessment of public benefits. CRA assessed the welfare costs from delayed production of LPG and condensates to be in the order of $192 million for a three year delay and $70.4 million from a one year delay.

420. CRA in its baseline scenario assessed the cost of a three year delay in the production of gas, condensate and LPG combined to be between $362.4 million to $413.8 million, and for a one year delay to be between $107 million and $122.4 million.

421. A more detailed commentary on the CRA model is set out later in this section.

Views of Interested Parties on Benefits and Detriments.

422. The majority of major gas consumers contacted by the Commission expressed a preference for a competitive gas market. However, some considered that a requirement to separately market gas from the Pohokura field would not necessarily lead to a competitive market or, if it did, that it would not be worth achieving if it meant a delay in the gas being offered to the market. Others suggested that a requirement to separately market would not cause a delay, and that competition from separate marketing of the gas would provide consumer benefits.

423. Written submissions made on the draft determination and submissions made at the Conference included the following comments relating to the benefits and detriments arising from the Arrangement:

- PEANZ emphasised the difficulties associated with joint marketing and argued that a requirement to separately sell Pohokura gas would have a detrimental impact on new exploration in New Zealand and would stifle market development.

- Contact stated that it did not agree that joint marketing would lead to earlier production from the field, however if there was a delay it would be likely to have significant consequences for the gas market and consequently the industrial and generation sectors. It considered that joint marketing would lead to higher prices and inferior conditions of supply, and that this would result in allocative efficiency losses. Joint marketing would also provide scope for productive inefficiencies and reduce incentives on the Applicants to be dynamically efficient. Contact also argued that any lower production and transaction costs arising from joint marketing would only benefit the Applicants and therefore should not be counted as a benefit to the public.
- NGC argued that posited benefits should be adjusted downwards as joint marketing would not necessarily lead to the early development of the Pohokura field. It also stated that the draft determination understated the detriments from joint marketing, and that joint marketing would slow the development of competitive and efficiency enhancing processes in the gas sector.
- Ballance argued that as LPG was destined for overseas markets, there should be no benefit attributable to its early production. It also questioned whether the CRA model was an appropriate one to use to measure benefits. It considered that public benefits from joint marketing would be small at most. It also considered that the detriments would be significant and would outweigh any benefits.

Assessment of Detriments

424. As discussed above, the Commission has adopted a counterfactual whereby the Pohokura JV parties separately sell their equity share of the gas produced, but collectively determine how the field will be developed and its depletion path. The Commission considers that there is some potential for the rate of output to differ between the Arrangement and the counterfactual. The Commission considers that the difference is likely to be significant, although it is unlikely to be large and it is not possible to predict in which direction it would lie.

425. The Commission has concluded that the Arrangement, compared with the counterfactual, would be likely to lessen competition in the gas market. The detriments arising from this loss of competition are discussed below under the headings: allocative, productive and dynamic efficiency.

Allocative Efficiency

426. The loss of allocative efficiency from the Arrangement compared with the counterfactual would be limited if the output from the field is similar under the two scenarios. There are two factors which may affect output.

427. First, the Commission considers that under the Arrangement, gas would potentially be produced a year earlier (and the field would be depleted a year

earlier). The efficiency impact of earlier production and depletion is considered in the Assessments of Benefits section below.

428. Second, the Commission considers that it is possible that a different production path would be chosen in the counterfactual, and this could impact on allocative efficiency. The Commission considers that it is likely that the impact would be significant, but moderate. However, there is some risk that there could be a more significant loss of allocative efficiency with the Arrangement.

429. As discussed above, the Commission considers that joint marketing may facilitate price discrimination. Should this occur, some users of gas will pay higher prices under joint marketing than they will under separate marketing for a given quantity of gas. (In effect, the joint seller will extract a greater proportion of the consumer surplus.) This would be likely to have a small but significant impact on allocative efficiency, although it does represent a "wealth transfer" which is discussed further below.

Productive Efficiency

430. Productive efficiency relates to the resources used in producing a particular output. An improvement in productive efficiency is achieved by a firm lowering its costs (that is, by using fewer or less valuable resources) when producing that output.

431. In considering whether there would be a greater likelihood of costs being lower in the counterfactual, the Commission has taken into account the competitive incentive on the parties to reduce costs. In general, competition provides the strongest incentive on a firm to reduce costs.

432. In this case, the Commission considers that there would be more competition between the Pohokura JV parties when marketing gas from the Pohokura field in the counterfactual than there would be with the Arrangement. Thus there would be greater pressure on marketing costs in the counterfactual.

433. However, marketing costs would be likely to comprise only a small percentage of total costs incurred in getting gas from the Pohokura field to the market. The major costs would be development and production costs, and these would be joint activities in both scenarios. Separate selling in the counterfactual would not, in itself, be likely to provide an extra incentive on the parties to lower development and production costs.

434. Overall, the Commission places only a small weighting on the detriment arising from the loss of productive efficiency.

Dynamic Efficiency

435. The rate at which producers adopt new technology and improved extraction methods is particularly important to the gas production sector. It can have an

important bearing on quantities of gas which can be extracted from individual fields, for example.

436. In respect of the Pohokura field, the production function would be undertaken jointly under both the Arrangement and the counterfactual. Consequently, there may be little difference between the Arrangement and the counterfactual in the incentive to adopt the most efficient new technology.

437. The Government, in the Gas Industry GPS, has emphasised the importance of developing an efficient gas industry in New Zealand. The GPS notes that production from an increased number of smaller gas fields will require more sophisticated pro-competitive arrangements, including improved arrangements for gas balancing and reconciliation. It states that gas industry participants, in conjunction with consumers, should develop arrangements which, inter alia, promote enhanced competition, including inter-fuel competition, wherever possible and, where it is not, seek outcomes that mirror as far as possible those that would apply in competitive markets. The Commission agrees there will be considerable benefits from such arrangements.

438. The Commission accepts that the present lack of depth to the gas market reflected in the limited number of participants on both the supply and demand sides inhibits the development of a more competitive, and therefore more dynamic marketplace. The potential for the Pohokura field to ameliorate the lack of depth problem would be lost if gas from the Pohokura field is sold jointly rather than separately. Therefore, there is a risk that joint marketing of gas from the Pohokura field would slow the development of an efficient and competitive market. The potential detriment this would cause would likely increase over the life of the Pohokura field as new fields, which are also important to an efficient competitive market, are discovered.

439. The Applicants argue that more gas fields are the key requirement for the development of a more competitive marketplace and that whether or not gas from the Pohokura field is sold jointly or separately would not be very material in this respect. PEANZ supported the Applicants in this regard.

440. The Commission recognises that more gas fields are critical to the development of a fully competitive infrastructure. However, it considers that more gas fields alone are not sufficient and that additional sellers are also important. Clearly if a large number of fields were under common ownership, this would not be likely to produce the environment which is conducive to the development of competition and the enhancement of economic efficiency.

441. The Commission signals that in any future instance of joint selling of gas which may come before it, it will also give careful consideration to the possibility that joint selling may impede the development of a more efficient and competitive market. This possibility may increase in time as additional fields come on stream.

442. In this case, the Commission considers that there is a risk that the Arrangement could inhibit the development of a more dynamic gas market, and that this risk may increase over time. The Commission accords significant detriment to this factor.

443. The Commission considers that the range of terms and conditions offered gas purchasers would be greater with separate selling. By limiting the range of conditions, joint selling would be likely to have a negative impact on the dynamic efficiency of both the gas market and downstream markets. The Commission considers that this would also result in an important detriment.

Price Increases and Wealth Transfers

444. As discussed above, the Commission has concluded that the Arrangement would result in gas prices being higher, on average, than they would be in the counterfactual. Higher prices may impact on allocative efficiency. However, price increases also have an impact on the relative wealth of different sectors of society. Ignoring other impacts, a gas price increase results in a wealth transfer from gas users to gas producers.

445. For the purpose of considering public benefits and detriments, the Commission does not normally attribute detriment to the wealth transfer in itself. This is because as one group (the gas producer) gains, another group (some gas acquirers) loses, leaving society as a whole no better nor worse off. However, the focus of the Act is on the welfare of New Zealanders. In its Guidelines the Commission defined the term 'public' in 'public benefit' as follows:

> The 'public' is the public of New Zealand; benefits to foreigners are counted only to the extent that they also involve benefits to New Zealanders.

446. Thus if transfers were to be paid by New Zealand consumers, but were to accrue to a foreign-owned firm and its shareholders, the transfer might no longer be neutral from a New Zealand perspective.

447. This raises the issue as to what constitutes a benefit to the New Zealand public. For example, if the transfer to be paid by New Zealand consumers, but were to accrue to a foreign-owned firm and its shareholders, the transfer might no longer be neutral from a New Zealand perspective. This issue arose in the AMPS-A case, where the High Court on appeal stated:[81]

> We reject any view that profits earned by overseas investment in this country are necessarily to be regarded as a drain on New Zealand. New Zealand seeks to be a member of a liberal multilateral trading and investment community. Consistent with this stance, we observe that improvements in international efficiency create gains from trade and investment which, from a long-run perspective, benefit the New Zealand public.

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[81] *Telecom Corp. of New Zealand Ltd. v Commerce Commission* (1991) 4 TCLR 473, 531; 3 NZBLC 102.340, 102.386.

> On the other hand, if there are circumstances in which the exercise of market power gives rise to functionless monopoly rents, supra-normal profits that arise neither from cost savings nor innovation, and which accrue to overseas shareholders, we think it right to regard these as exploitation of the New Zealand community and to be counted as a detriment to the public.

448. This means that the redistribution of income associated with a business acquisition or restrictive trade practice would not necessarily be welfare neutral when (as in the present case) producers and/or consumers are overseas owned. In these cases market transactions would involve transfers between nationals of different countries. Transfers from New Zealanders to foreigners would potentially be losses, just as transfers from foreigners to New Zealanders would potentially be gains. The Commission would be required to incorporate such transfers into its public benefit/detriment calculations if they are transfers of 'functionless monopoly rents' (in the words of the AMPS-A decision).

449. In the present case, the Commission considers that it is not necessary for it to assess whether any transfers would fall into the 'functionless monopoly rent' category as the overseas ownership of the Pohokura JV and of the major gas purchasers are similar – perhaps around 70% of each. Thus even if there were such transfers, the net effect would be very small or zero.

Conclusion on Detriments

450. The Commission concludes, on the balance of probabilities, that the Arrangement would result in a moderate, but significant detriment from a lessening in allocative efficiency, a small detriment from a lessening in productive efficiency and a more significant detriment from a loss of dynamic efficiency.

Assessment of Benefits

451. The Applicants have claimed as benefits, which would arise from joint marketing, the timely development of the Pohokura field: greater exploration incentives; optimal pool depletion; lower production and transaction costs; and environmental benefits. These claimed benefits are discussed below under separate headings.

Timely Development of the Field

452. As described above, the Commission considers that a requirement to separately market the Pohokura field has the potential to delay its development by one year.

453. The Commission accepts that the economic benefit of early production has the potential to be substantial. The Pohokura GPS states:

> Gas from Pohokura needs to be successfully marketed and in production in a timeframe and manner that ensures that national energy security and economic growth interests are met. This is particularly important to ensure that new electricity generation projects can be built in a timely manner to meet growing economic demand.

454. All the major gas users spoken to agreed that in current circumstances of constrained gas supply, anything less than timely development of the Pohokura field would have serious economic impact on the economy. Those in the electricity sector in particular saw dire consequences arising from a delay in production, especially in the event of on-going limited water inflows into the hydro lakes. Gas users generally pointed out, however, that to some degree the extent, or even the existence of any delay lay in the hands of the JV parties themselves.

455. In its submission with the Application, CRA estimated the present value of the benefit in its base case scenario of the avoidance of a three year delay of $204.1 million. However, subsequent to the draft determination it altered some of the assumptions used in the earlier estimation. In the base case of its revised assessment, CRA assessed the benefit of the avoidance of a three year delay to be $361.2 million.

456. In its initial submission CRA omitted the benefits from early production of condensate and LPG. At the Conference, Professor Evans stated that this was because CRA considered that the benefits from the early production of gas alone were sufficient to 'carry the day'. CRA incorporated both LPG and condensate in its revised assessment.

The CRA Model

457. CRA made its model available to the Commission and the Commission has run the model using its own information and assumptions. The model, the assumptions used and the differences between CRA's assessments and the Commission's assessments are discussed below.

458. To make the analysis of the gas benefits more tractable, two simplifying assumptions were used. First, the analysis of the welfare effects in downstream markets was limited to the electricity generation and retailing markets on the one hand, and to the petrochemicals production market on the other. The supply of gas for use by others, principally those in the reticulated part of the market (which CRA suggested made up about 15% of demand), was removed from the analysis. The reticulated part of the market incorporates domestic, commercial and industrial customers.

459. Secondly, by assuming that price is set equal to marginal cost in the relevant downstream markets, and by focusing on the equilibrium rather than the 'standard' demand curve in the gas market, it is possible to represent all of the welfare impacts from the delay in the Pohokura field start-up in the gas market alone. Hence, a demand and supply model of this single market encompasses the net welfare effects in that and the relevant downstream markets.

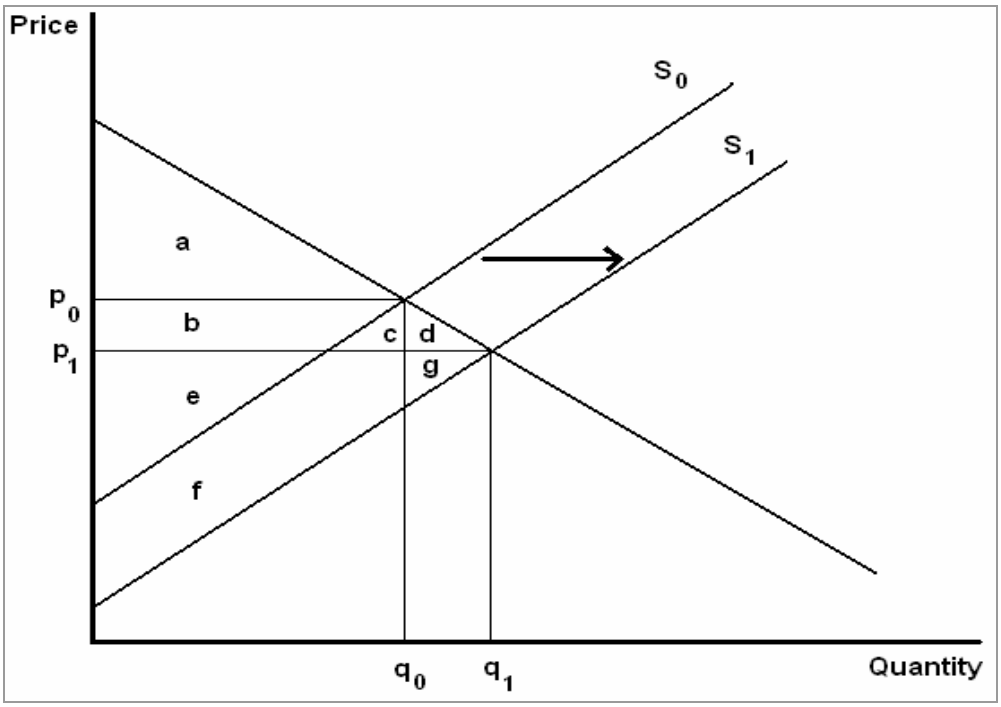
460. The welfare gains arise through the increased supply of gas in the period production is brought forward. These gains are offset to some degree by the fact

that field depletion occurs later in the counterfactual (because of the later start). The welfare changes arising from the increased supply in the early period are shown in a stylised way in Figure 2, which represents demand and supply in the gas market in a relevant year.[82]

461. With supply at S_0, producers' surplus is represented by the sum of areas *e* and *b*, and consumers' surplus by area *a*. With the supply expansion to S_1 and the consequential price fall from p_0 to p_1, and quantity expansion from q_0 to q_1, gas producers gain areas *f* and *g*, but lose *b* to users. Consumers gain areas *c* and *d*, and also *b* as a transfer from producers. Hence, the net welfare gain for producers and consumers together is the sum of *c*, *f*, *d* and *g*. The first two components measure the benefit from the now less expensive supply of the pre-existing quantity of gas; the last two components represent the welfare gain from the expansion in supply.

[82] This is a slightly modified version of CRA's Figure 3, p. 55.

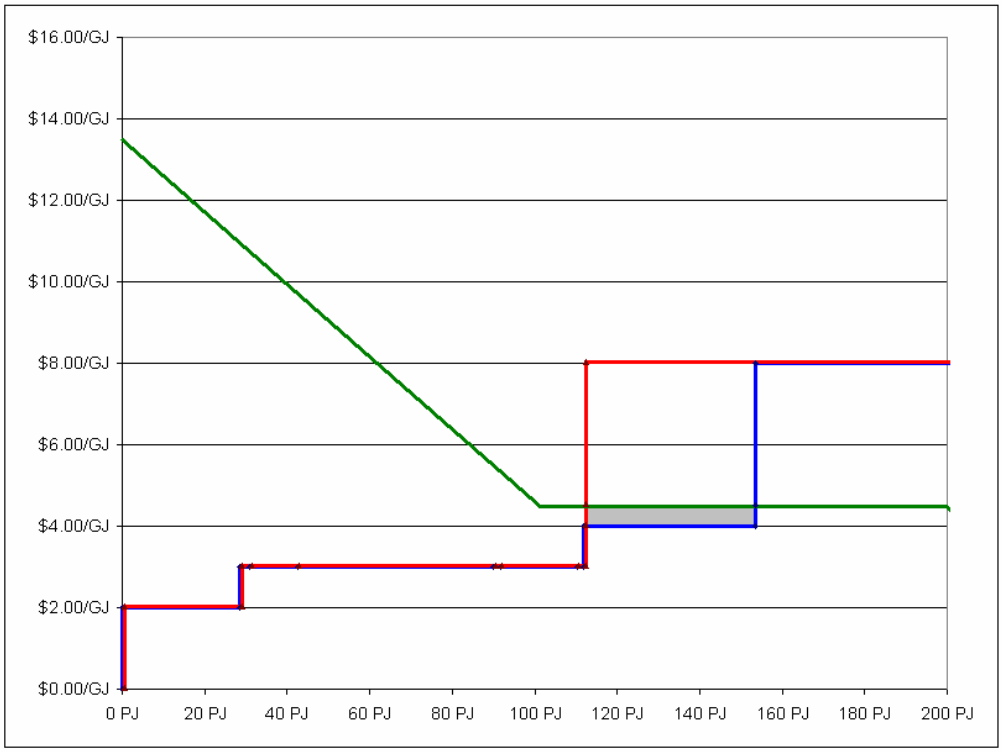
Figure 2
Stylised View of Welfare Changes from an Increase in Supply



462. This stylized model then has to be tailored to reflect the nature of supply and demand in the gas market. This model for 2006, using the assumptions adopted by the Commission, is shown in Figure 3.

463. The supply curve is a stepped line, with each 'tread' indicating the price and annual volume (for the year in question) of gas from each source of supply. These are arranged in ascending order of prices, so the curve steps upwards to the right, reflecting the assumption that lower cost sources will be exploited first. Prices reflect long-run marginal costs of supply. Volumes from each field were reduced to a proportion of those expected, to remove from the reckoning supplies devoted to the reticulation market. When the Pohokura field comes into production under the Arrangement, but not under the counterfactual, the effect is to introduce a new 'tread' into the supply curve at $4.00/GJ for the relevant year. The step above will shift rightwards (from roughly 110 to 150 PJ), indicating an increase in supply, as illustrated in Figure 3. This implicitly assumes that the amounts supplied from other fields are not adjusted when the Pohokura field supply is introduced.

Figure 3
A Stylised View of the Gas Production Market in 2006, With and Without Pohokura



464. The gas demand curve is constructed by assuming that the critical price is $4.50/GJ. This is the price assumed to be paid currently by electricity generators, and the maximum price that would be paid by the petrochemical producers in the long-term. Hence, at a higher price only the generators would be in the market; this segment of the demand curve is constructed by assuming a linear function with a given price elasticity of -0.5, sloping backwards from a price of $4.50/PJ and (in 2006) a quantity of about 126 PJs. The linearity of the demand curve is admittedly unrealistic as a stepped one would be expected, given that generators are few in number and individually buy large 'blocks' of gas under long-term contracts, but a stepped function would be difficult to construct as their reservation prices are not known. At $4.50/GJ the petrochemical producers would be added to the demand function, so that it becomes kinked at this point, with a horizontal section representing the amount of petrochemical demand. The Commission has assumed, unlike CRA, that all of the capacity would be used at that price.

465. CRA in its original submission projected generators' demand for gas to grow at 2% per annum, which would cause the curve to shift progressively rightwards year-by-year. Demand is also forecast to increase sharply in 2005 when two new gas-fired plants are commissioned (but only by the gas consumption of one, presumably because the net increase in capacity is equivalent to that of one). In the 'base case model' hydro-generation is assumed to be at a normal level. In its

draft determination the Commission adopted these assumptions, save for the one involving growth, which is assumed to be zero because it is understood that combined cycle gas turbine stations are generally run as base-load and therefore close to full capacity. Hence, their demand for gas would only increase when new capacity is built. In its revised assessment CRA used the draft determination's assumption in this respect, although it sensitivity-tested using a 4% growth rate.

466. The welfare gain from earlier development of the Pohokura field is shown in Figure 3 by the shaded area of additional surplus. These welfare effects have to be estimated for all years of the field's life. However, the major effect occurs in the 2006 year illustrated, given the one year delay assumed in the counterfactual at that point. The counterfactual has the partially offsetting benefit of a year's supply of gas from the Pohokura field at the end of the life of the field when gas has been exhausted in the factual.

467. The CRA model seeks to make tractable the welfare analysis of a complex set of vertically related markets. Nonetheless, it is important to be aware of the intrinsic limitations of the model, which are as follows:

- the theoretical basis for calculating welfare effects in the vertically related markets using only the gas market relies on the assumption that the downstream markets are perfectly competitive (price equals marginal cost). This is highly unlikely to be the case given the structures of those markets;
- CRA states that they "assume a linear demand curve", yet this is inconsistent with its admission that the demand for gas is likely to be a step function. The construction of a stepped demand curve for gas for electricity generation is likely to be difficult;
- in applying the model, the focus is upon determining "observable" or "actual demand". However, the welfare model used is based upon "equilibrium demand". While an equilibrium demand curve may be more useful for conceptualising the welfare effects of the market for gas, actually specifying an equilibrium demand curve will require additional assumptions concerning the relationship between the gas market and downstream markets, assumptions that depend on additional, unobservable characteristics of demand; and
- CRA's analysis is limited to only the first part of the life of the field (2004-2009), and so does not take into account the additional gas that would be available at the end of the field's life because of the delayed start in the counterfactual (discussed further below).

468. In addition, the calibration of the model is problematic because the gas industry is inherently difficult to forecast. This is illustrated by the changes that have occurred since CRA originally developed the model. For example, it assumed that the Pohokura field would start production in 2004, whereas now the earliest date is 2006. Similarly, it implicitly assumed that Huntly would continue to use mainly gas, whereas recently Huntly has switched predominantly to coal. The same issue applies to New Plymouth, which is switching from gas to fuel oil.

469. A further consequence of uncertainty in gas markets is that many contentious assumptions inevitably have to be made in order to use the model to make welfare predictions, and these predictions are apt to be sensitive to the assumptions used. In addition to those matters discussed above, amongst the more important assumptions are the following:

- the length of the delay caused by an absence of joint marketing, relative to the position with the Arrangement;
- the reservation prices that Methanex and other petrochemical firms are prepared to pay (which is complicated by the unusually high international price of methanol currently);
- the timing of the commissioning of two new gas-fired generation plants;
- the amount of gas that Huntly would use;
- the assumption of a price elasticity of demand in the gas market;
- the price at which gas from the Pohokura field, and gas from other as yet undiscovered fields, would be sold; and
- the time when Kupe will start producing and the price of Kupe gas.

470. Because of the uncertainty attached to these figures, CRA subjected them to sensitivity testing, and also modelled alternative scenarios. CRA found that the discounted present value of the net benefits flowing from the Arrangement was sensitive to the values of a number of the variables used.

471. This discussion indicates that modelling in this case is subject to a higher than usual degree of reservation about the accuracy of any predictions made, given the great uncertainties inherent in the gas market, and the period over which projections need to be made.

472. For its own welfare calculations of the Arrangement, the Commission has used a modified version of the CRA model, and with some differences in data and calibration assumptions. The important differences between the approach of the Commission and that of CRA are discussed below.

Stationary Welfare

473. In its submissions on the draft determination, CRA said that when measuring the welfare benefit of joint marketing:

> … the stream of benefits into the future may incorporate the effect of options to delay the start-up of the field. It can be period specific and incorporate forecast changes in market structure that relate to specific periods or it can be stationary where it is assumed that uncertainty is at such a level that the estimated just reflect the profile of the field over its life and not when the field starts. That is, under stationarity it is assumed that the state of knowledge is such that there is no reason (because of the structure of the market, potential discoveries, subsidies of renewables, etc) to treat the expected surplus of a field

> to be different if the start of the field is later, except predictably as costs change over the life or profile of the field; in particular there is no long term trend.[83]

474. In the submission, CRA opted for the 'stationary' approach. It emphasised the difficulty in attempting to predict gas supply and demand, and accordingly welfare, so far out into the future utilising trends. It therefore considered it more appropriate to treat welfare past 6 years in advance as stationary.

475. Consequently it presumed for the period beyond 2009 a stationary situation in which there were no positive or negative net benefits attributable to the early start date in any year until the field's closure. It did not subtract the net benefit of the final three years of the field under separate marketing (i.e. the period in CRA's analysis when the field is depleted under joint marketing, but continues to produce under separate marketing because of the later start) because these are heavily discounted as they relate to periods so far into the future.

476. The Commission accepts that an assessment of the benefits and detriments over the life of the Pohokura field involves a considerable degree of speculation because of the lengthy period involved and the potential for unpredictable but substantial changes in both supply and demand of gas within that period. Nevertheless the Commission considers that such an assessment remains a valuable tool in its analysis, even if the number, or range of numbers, arrived at have to be treated with caution. It provides, for example, a framework in which some (but not necessarily all) factors impacting on welfare can be considered and weighed.

477. Having concluded that the assessment is useful, the Commission does not accept that it should stop in 2009 as suggested by the Applicants. To do so would ignore the counter-weighing benefit from the availability of gas from the Pohokura field in the final years of the field in the counterfactual. While it clearly is difficult to measure the size of this counter-weighing benefit, what is reasonably certain is that that gas would have value at that time, and therefore would bring with it a benefit to the counterfactual scenario.

478. Accordingly, the Commission does not accept the CRA submission that welfare effects beyond 2009 should be treated as stationary. Rather it has assessed the effects over the life of the field, while recognising that its assessment needs to be treated with caution.

Timing of Production

479. The Applicants have argued that the Arrangement would advance production from the field by three years. For the reasons described above the Commission considers that the Arrangement has the potential to advance the field by one year, although there is no certainty that this early production would be achieved.

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[83] Paragraph 4.2 of CRA response to draft determination, 17 June 2003

Price Cap

480. In its initial submission CRA assumed that coal would substitute for gas in the period of analysis, and therefore capped the price of gas and gas substitutes at the price of coal at $8.00/GJ (after accounting for relative efficiency losses). It suggested that this was the price at which an electricity generator would be indifferent between purchasing gas and coal.

481. In its submission dated 17 June 2003, CRA stated that recent events have raised the profile of diesel (or distillate) as another substitute for gas for electricity generation, and pointed out that while diesel is more expensive than coal, diesel-fired generation can be brought on-line more quickly than coal-fired generation, which may be five or more years. CRA argued therefore that within the period of its welfare analysis, diesel would be the substitute from 2006 to 2008 and coal the substitute in 2009 only. The price of diesel it used was $11.70/GJ.

482. The Commission considers the appropriate period for the welfare analysis is the life of the Pohokura field (2006 to 2020) and that during most of that period coal is likely to be the substitute. In any event however, the issue of the substitute price is not relevant to the Commission's calculation of welfare losses. In the Commission's model, before 2009 no gas is traded at a price higher than $6/GJ in either the factual or counterfactual. Changing the gas substitute price therefore has no effect on the price at which gas is actually traded nor on consumer surplus.

Demand Assumptions

483. The Commission's demand assumptions for gas are set out in Table 6.

Table 6
Demand Assumptions for Gas Used by the Commission

Element	Commission
Inflation	All monetary values expressed in 2003 dollars
Non-electricity and petrochemical users	40 PJs per annum
Current gas price and quantity for electricity users	$4.50/GJ
Price elasticity for electricity users	-0.5
Demand growth from electricity demand	0%
New demand from new power station	Extra 20 PJs/year from 2007, coinciding with Pohokura production
Huntly demand	Initially mainly coal, switching mainly to gas in 2007
Petrochemical maximum demand	98 PJs/year
Petrochemical demand	Zero capacity above $4.50/GJ; 100% capacity below $4.50/GJ.
Other energy sources	Normal

484. In its revised modelling following the release of the draft determination, CRA also used the above assumptions.

Supply Assumptions

485. The Commission's supply assumptions for gas with respect to price are set out in Table 7. There is a high degree of judgement required to assess likely gas supplies through to 2020. As discussed above it is particularly difficult to predict quantities of gas which might be supplied from as yet undiscovered fields.

486. For the reasons discussed above, the Commission in its analysis has considered two possibilities. The first is based on current projections from known fields and uses MED's forecasts for gas from new fields. (These MED forecasts are for 35 PJ per annum for the years 2008-2013 and 60 PJ per annum for the years 2014 onwards 60 PJ per annum[84].) These forecasts referred to below as "Gas Supply Projection A" and are included in Table 8.

487. The second possibility considered by the Commission is that production until 2009 would be as indicated in Table 8, but from 2010 onwards production from new fields would be sufficient to result in total supplies from all fields being 175 PJ per annum. This second possibility is referred to below as "Gas Supply Projection B".

[84] These figures are discussed in paragraphs 147 to 149.

Table 7
Supply Price Assumptions for Gas Used by the Commission

Element	Commission
Inflation	All monetary values expressed in 2003 dollars
Price of Maui contract gas	$2.00/GJ
Price of gas from smaller known fields	$3.00/GJ
Price of gas from Pohokura	$4.00/GJ
Price of Maui non-contract gas	$4.00/GJ
Price of gas in yet-to-be discovered fields	$4.00/GJ
Price of gas from Kupe	$4.50/GJ
Ceiling price	$8.00/GJ (coal alternative)
Gas production fields	As per table 12 below. The Commission does not consider significant production from the Kauhauroa field is sufficiently likely to include it in its assessment.

488. In its revised modelling following the release of the draft determination, CRA also used the above assumptions, save for the ceiling price which is discussed above.

Table 8
Gas Supply Projection A

Field	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Pohokura				50	70	70	70	70	70	70	55	45	35	25	20	15	25	
Maui Contract	115	100	100	35														
Maui Non-contract				60	75	50	30											
Kapuni	25	25	25	25	20	20	20	20	20	20	20	15	15	15	15	15	15	15
TAWN	15	15	10	5														
McKee/ Mangahewa	15	15	15	15	10	10	5	2										
Rimu	2	2	2	2	2	2	2	2	2									
Other Fields	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Kupe						25	25	25	25	25	25	25	25	25	25	25	25	
New Fields						35	35	35	35	35	35	60	60	60	60	60	60	60
Total	**174**	**159**	**154**	**194**	**179**	**214**	**189**	**154**	**154**	**152**	**137**	**147**	**142**	**127**	**122**	**117**	**127**	**77**

Notes:
The Commission has used figures in its modelling reflecting the information provided to it. The precise figures were regarded as being commercially sensitive and accordingly the figures in the table above have been rounded.
Pohokura - Off-take figures have not yet been finalised by the Pohokura JV. The figures in the table up to 2015 are based on the expectations of the Pohokura JV Parties, and the figures for the period beyond that are based on the same rate of decline in production as in the previous years.
Maui – The Commission has assumed that independent experts assessment of ERR reserves of 352 PJ is correct and that the extraction of that gas will be advanced and will meet contract obligations. The amount of non-contract gas has been assessed by the Commission. It takes into account information supplied by Maui Joint Venture parties. The Commission has assumed that contract gas will be provided before non-contract gas.
Other fields – Includes Kahili and Ngatoro – are based on knowledge of current production levels.
Kupe – The Commission has found no reason to change the "likely production figure" used in Decision 408.
New fields - The Commission has used in the above table MED's assessment of likely production from new fields.

Condensate and LPG

489. LPG and condensate will be produced from the Pohokura field in fixed proportions to each other and to gas. Both LPG and gas are traded in international markets and their prices are determined by these markets.

490. The quantity profiles of condensate and LPG were provided to the Commission in confidence. The assumptions used by the Commission are shown in Table 9.

Table 9
Profile assumptions used by the Commission for condensate and LPG

Assumption	Condensate	LPG
Discount Rate	10%	10%
Price	US$17.175/bbl	US$241.50/tonne
$US:$NZ Exchange	0.5803	0.5803

Model Results

491. The Commission considers that the assumptions which it has adopted are, in the main, conservative. That is, if the Arrangement results in the field producing gas one year earlier than would otherwise be the case, using the assumptions would be more likely to understate than overstate the benefit which could be attributed to this early production.

492. Using the assumptions adopted by the Commission, the model produces the results shown in Table 10:

Table 10
Public benefit from one year earlier production:

	Gas Supply Projection A	Gas Supply Projection B
Gas	-$22.5m	$11.6m
Condensate	$45.3m	$45.3m
LPG	$25m	$25m
Total	$47.8m	$81.9m

493. These figures compare with CRA's baseline assessment of the benefit of avoiding a three year delay of gas $170.0 million to $221.4 million, condensate $124.1 million and LPG $68.3 million, making a total of $362.4 million to $413.8 million.

494. The principal differences between the Commission's figures and those of CRA are:

- the Commission has used for the purpose of its calculation the assumption that the Arrangement will result in production commencing one year earlier than would be the case in the counterfactual, whereas CRA has claimed in the Application that it would be three years earlier;
- the Commission has assessed the gas benefit over the life of the field, whereas CRA has assumed that welfare beyond 2009 as stationary; and
- CRA has adopted slightly different gas production profiles.

495. The Commission considers there is some uncertainty about whether the Arrangement will necessarily lead to earlier production, therefore the Commission cannot be certain that the benefit it has calculated would be achieved.

Other Benefits

496. The Applicants have claimed that as well as benefits from the early production of gas from the Pohokura field, there would be benefits to the public achieved from lower production and transaction costs; more efficient depletion path; enhanced exploration incentives; and a reduction in adverse effects on the environment. These are considered separately below.

Production and Transaction Costs

497. In a letter to the Commission dated 21 March 2003, the Applicants stated:

> Compared to joint marketing, separate marketing would lead to significantly higher production and transaction costs. Clearly, quantification of these higher costs is extremely difficult, due to the uncertainty over how the extra required negotiations and investments would proceed (there is of course no precedent in New Zealand or Australia).

498. However, in the letter the Applicants, "drawing on a mixture of development and marketing experience and judgments about the level of complexity of separate marketing" provided the following estimates:

Extra negotiation costs – staff, consultancy And legal fees	- $6.6 million per annum
Extra facilities costs	- $50 million
Extra operating costs	- $5 million
Extra appraisal and design costs	- Significant
Miscellaneous costs – Standing down project team during period of delay	- $4 million
Litigation costs	- Not quantified.

499. At the Conference, the Applicants reiterated that there would be higher production and transaction costs with separate marketing although they stated that the principal benefit they were claiming from joint marketing was the avoidance of delay.

500. The Commission accepts that there will be some additional transaction costs with separate marketing. Clearly separate marketing would require the Pohokura JV parties to reach agreements on appropriate off-take and balancing arrangements (although these may have offsetting benefits if they provide a template for separate marketing from other fields in the future). Coordination may be more difficult under separate marketing, and information flows are likely to be constrained as each Pohokura JV party would be wishing to protect its commercially sensitive information. There may be greater areas for dispute between the Pohokura JV parties, and this could lead to increased litigation.

However, the Commission considers that the Applicants, in their assessment quoted above, has overstated some of these costs.

Extra Facilities Costs

501. The Applicants' submission suggests that separate marketing could lead to a 10% (which it has stated is conservative) level of overcapacity, and that this could add $50 million to development costs.

502. The Commission accepts that if development decisions are made with inadequate information, it can result in over-expenditure or under-expenditure on facilities. However, the Commission does not accept that separate marketing would necessarily mean that decision makers would have less or inferior information than in the counterfactual. It is possible that the more dynamic nature of separate marketing would lead to a better information base for decision making.

Extra Appraisal and Design

503. The Pohokura JV has engaged STOS to conduct technical and operational work for the appraisal and development of the field. The Applicants have noted:

> The Pohokura joint venture parties have conflicting interests in aspects of the appraisal and development of the field (for instance of downstream infrastructure). These conflicts are manageable in the context of an overall joint effort to develop the field. In this situation, the Pohokura joint venture parties are sufficiently aligned that they work jointly in the key aspects of appraisal, development, commercial and marketing work…
>
> If the Pohokura joint venture is required to separately market gas this will introduce (further) misalignment. The alignment that currently exists that allows the joint venture parties to cooperate and rely on the resources of STOS will cease. That is because STOS is not owned or staffed by the joint venture. Accordingly, if the joint venture parties were forced to separately market, aspects of operatorship may have to be considered. That will be a substantial exercise and would take a considerable period of time to address and resolve.
>
> This is likely to result in:
>
> *Extra Subsurface Work*
>
> ….
>
> Enforced separate marketing will compel the Pohokura joint venture parties to invest in extra risk mitigation strategies. This will include spending more money and time prior to development decisions in understanding the subsurface structures. …
>
> The misalignment of joint venture party interests in managing the subsurface risk will very likely result in each joint venture undertaking at least in part its own subsurface analysis rather than relying on the work of Shell/STOS.
>
> …
>
> *Extra Development Work*

> As with the subsurface analysis, the misalignment of joint venture party interests will very likely result in each joint venture undertaking at least some of its own surface analysis rather than relying on the work of Shell/STOS.[85]

504. The Applicants have noted that the extra appraisal as a result of separate marketing might be limited to extra 'desktop' work using existing data. The Pohokura JV paid around $23 million in 2002 for this work. The Applicants have suggested that each Pohokura JV party could feel compelled to undertake this type of work individually.

505. The Commission is not convinced that the amount of analysis in addition to that undertaken by STOS would necessarily be significantly more with separate marketing than with joint marketing. Under both arrangements each party would want a high level of confidence in the reliability of the analysis work, given the implications of a serious error. No doubt under both scenarios each party would test the reliability of the conclusions reached by STOS.

506. Accordingly, the Commission has placed only limited weight on the claim that additional costs would be incurred under separate marketing as a result of the Pohokura JV parties each undertaking surface and subsurface analysis.

Optimal Pool Depletion

507. The Applicants have stated:

> It is important to note that scenario 1 effectively involves the joint venture parties making decisions on development parameters (including quantities and rates) prior to sales contracts being entered into. This approach could mitigate the over-extraction incentives to an extent. However, a disadvantage of it is that those parameters would be established using a smaller set of demand-side information than could be obtained under, for example, joint marketing. The consequences are that:
>
> - The parameters are less likely to be set at the welfare maximising point; and
> - Negotiations over those parameters would be longer and more contentious, particularly given that there would be an asymmetry between each joint venture party's imperfect set of demand-side information.[86]

508. The Commission does not accept that the Arrangement would necessarily mean that development decisions would be made with better knowledge of the market's requirements than would be the case with separate marketing. While under joint marketing it is possible that the individual JV parties would be more willing to divulge to the other parties the requirements of prospective customers, the different dynamics with separate marketing might result in more or superior information of the requirements of individual firms purchasing the gas. The Commission notes however, that the Arrangement may give the Pohokura JV flexibility from greater scale, which may assist it to better meet the requirements of individual customers on such matters as off-take terms, swing, risk and so on.

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[85] Applicants' letter to the Commission, 21 March 2003, p.7
[86] Application, paragraph 5.4.1

However, it is not clear that the Pohokura JV parties have strong incentives to provide these possible advantages.

509. Overall, the Commission has attributed a small amount of public benefit to this factor.

Exploration Incentives

510. The Applicants and other exploration companies have suggested to the Commission that if the Pohokura JV was required to market separately, additional costs and risks would arise. While this may not prevent the development of the Pohokura field, it would be seen by prospective explorers as a disincentive to invest in New Zealand.

511. The Commission does not consider that the authorisation of the Arrangement in this instance would have more than a minimal impact on the incentive to explore for gas in New Zealand for the following reasons:

- the Commission's analysis of the implications of the Arrangement is on a case by case basis. The decision in this instance cannot be taken as an indication of what the Commission might conclude under different circumstances in the future;
- the Commission's particular concerns in this case arise from the high level of market concentration, the existing market power of the Pohokura JV parties and the limited supply alternatives in the near future. It may be that with different parties the same competitive concerns may not arise. It is likely that this would be recognised by prospective explorers; and
- in any event, the costs which may be associated with separate selling from most potentially productive fields would be small in comparison with the gains to the owners from the field, and these costs would therefore not be regarded as a disincentive in themselves.

Positive Impact on the Environment.

512. The Application stated that as a result of joint marketing there would be a reduction in adverse affects on the environment. It suggested that the most likely alternative to gas for electricity generation is coal, and that coal has significantly more externalities than gas.

513. The Commission does not consider a case has been made for significant weight to be given to this factor. It has not been demonstrated that there would be less gas produced with separate marketing in the counterfactual, merely that it would be delayed by perhaps one year. Whether that would mean more coal being used in the period of the delay, or the extent of any adverse effect this would have on the environment, has not been demonstrated.

Conclusion on Benefits

514. The Commission concludes, on the balance of probabilities, that the Arrangement has the potential to advance production from the Pohokura field by one year. If this potential became a reality, it would provide an important benefit to the public. The Pohokura GPS also recognises the importance of early production. The Commission has quantified the benefit from early production as being in the order of $47.8m to $81.9m. In addition the Commission considers that limited additional benefit to the public would arise from lower production and transaction costs and possibly more operationally efficient depletion of the field, a savings in facilities and in appraisal and design costs (limited), and an increase in the exploration incentive.

Balancing of Benefits and Detriments

515. The Commission concludes, on the balance of probabilities, that if the Arrangement led to the production of gas, condensate and LPG from the Pohokura field at least a year earlier than would otherwise be the case, it would produce public benefits which it has assessed as falling in the range of $47.8m to $81.9m. As described above there may also be other benefits from the Arrangement but these are likely to be much smaller in scale. On the other hand, the Arrangement would result in a moderate, but significant detriment from a lessening in allocative efficiency, a small detriment from a lessening in productive efficiency and a more significant detriment from a loss of dynamic efficiency.

516. The Commission concludes, on the balance of probabilities, that the benefits, excluding the benefit from early production, are likely to be less than the detriments from the loss of competition. The inclusion of the benefit from early development would mean the benefits are likely to outweigh the detriments. However, the Commission considers that the avoidance of delay and the extent of delay in bringing the Pohokura field into production is uncertain. As a consequence, the Commission cannot be certain that early development will actually be achieved. In order to gain some certainty that the public benefits will be achieved, and to mitigate the extent of the detriment caused by the loss in competition caused by the Arrangement, the Commission considers that it is necessary to impose conditions on the authorisation.

CONDITIONS ON AUTHORISATION

Introduction

517. Section 61(2) of the Act states:

> Any authorisation granted pursuant to section 58 of this Act may be granted subject to such conditions not inconsistent with this Act and for such period as the Commission thinks fit.

518. The Applicants submitted that while they agree that section 61(2) confers a wide discretion on the Commission to impose conditions, this discretion is fettered by the:

- express limitation in s 61(2) that a condition must not be inconsistent with the Commerce Act;
- limitation, as a matter of law, that a condition must not be inconsistent with any other Act;
- limitation that a condition must be consistent with the principles of administrative law; and
- Commission reaching an appropriate level of satisfaction that benefits exceed detriments in respect of the s 61(6) balancing test. In such a case the Commission has no need to, and should not impose conditions as conditions ought only be imposed where, but for the conditions, the benefits would not be likely to outweigh the detriments.[87]

519. The Applicants submitted that:

> Plainly the balancing test under section 61(6) requires the Commission to authorise trade practices where benefits are likely to result and are likely to outweigh the detriments. Where the Commission reaches the appropriate level of satisfaction under this test, then the Commission has no need to, and should not impose any conditions. The Commission would, in imposing conditions in those circumstances, be going beyond the requirements of section 61(6) and outside the scope of its discretions under section 61(2)…
>
> …
>
> In other words, conditions ought only to be imposed where, but for the conditions, the Commission would not be satisfied for the purposes of section 61(6).
>
> This approach is consistent with an early decision of the Commission, namely *Re Kiwifruit Exporters' Assn/NZ Kiwifruit Coolstorers Assn* (1989) 2 NZBLC (Com) 104,485…
>
> …Kiwifruit Exporters *demonstrates* the proper circumstances where conditions ought to be imposed. The Commission noted in that case that conditions "could" be appropriate to achieve benefits and to minimise detriments in a setting where the conditions were necessary to "tip the balance' in favour of authorisation. (Legal submission on behalf on the Applicant, p.2

520. The Applicants submitted that their Application is not a "tipping of the balance" case because, the benefits of this Application outweigh the detriments. The Applicants argue that authorisation should be granted unconditionally.

521. Representatives of Westpac, on behalf of the one of the Applicants, submitted that it would be unlikely that Westpac would be able to fund any part of the development of the Pohokura field if any conditions had the potential to:

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[87] This argument is otherwise referred to as the "tipping the balance test" – conditions are appropriate where it is necessary to "tip the balance" in favour of the authorisation.

- interrupt the Applicants' long term cash flows from sales of gas from then Pohokura field; and
- prevent Westpac (or any other financier) from assuming ownership of a joint venture partner's equity in the Pohokura field in the event that it reneged on its commitments to repay its loan.

522. Westpac stated that a restriction on the length of any authorisation of the Arrangement would allow it to fund only an equivalent proportion of the project. That proportion would be based on potential cash flows from sales of gas occurring before the expiry of the authorisation. Similarly, a requirement that the field reach first or full production by a specified date or the authorisation would lapse, would lead to unacceptable risks to the cash flow from the Applicants' sales of gas, on which Westpac would rely for its security.

523. The Applicants informed the Commission that these financing considerations would apply equally to either internal or external funding of the project.

524. The Applicants also submitted that:

- the terms of any gas sale contracts into which the Applicants might enter under the Arrangement, are not part of the subject matter of their Application;
- the Commission should not make conditions which attempt to pre-empt the future negotiated terms of gas sale contracts;
- any competition issues which might arise in relation to these gas sale contracts will be subject to s 27 of the Act and may be analysed under that section in due course; and
- issues of definition and enforcement would arise in respect of any "contractual term" type conditions which the Commission might impose. The Commission must not make conditions which require an on-going monitoring or intervention role or which effectively dictate what terms actually enter specific gas sale contracts.

525. The Applicant's' submission of 7 August 2002 on the proposed alternative conditions stated that:

- the application for authorisation of joint marketing involves no lessening of competition compared to Scenario 1 counterfactual. It follows that there are no detriments;
- even if there were detriments, there are overwhelming public benefits. Accordingly, there is no basis for the imposition of any conditions;
- conditions cannot be randomly imposed to design market outcomes;
- conditions ought to only be imposed where, but for conditions, the benefits would not be likely to outweigh detriments. This is not the case here; and

- again their view that the conditions put at risk the likelihood that there will be funding available to support the development of the field[88].

The Commission's Decision on Conditions

526. As noted earlier, the Applicant submitted that the conditions may only be imposed if necessary to "tip the balance" in favour of the authorisation. The Applicant submitted that its view is consistent with Decision 221.

527. At the Conference, Contact submitted that:

> …the Commission is entitled to impose conditions to secure the claimed benefit.
>
> The Commission has previously considered this issue in Decision 221, Re New Zealand Kiwifruit Exporters Association (Inc) - New Zealand Kiwifruit Coolstorers Association (Inc)
>
> In our view the Commission is right in the Pohokura draft determination in finding that conditions could be imposed to ensure public benefit is realised. In our submission also, this is an appropriate case for imposing conditions of that type. (Submission entitled "Contact Energy Limited – Oral Submissions at the Pohokura Conference, p.2)

528. As part of the reasons for its decision in Decision 221, Re Kiwifruit Exporters' Association (Inc) – New Zealand Kiwifruit Coolstores Association (Inc),[89] the Commission, noted:

> The discretion given to the Commission appears to be wide, subject only to the important qualification of consistency with the Act…conditions designed to enhance competition, or to remove detriments flowing from an absence of competition, could be appropriate. Further, conditions designed to help ensure the continuation or effectiveness of public benefit found to exist in respect of any application could likewise be considered. Such conditions are in line with the objectives of the Act. Their enforceability is also important, particularly if used to "tip the balance" in favour of authorisation. Obviously, the Commission will wish to take into account normal considerations, such as compliance costs for the parties, enforceability, precision, monitoring etc when imposing such conditions. The Commission notes that it could review this consent[90] [i.e. the authorisation granted to New Zealand Kiwifruit Exporters et al] should the conditions imposed not be complied with.

529. Decision 221 concerned the authorisation of a collective pricing agreement. The Commission imposed a number of conditions specifying:

- the parties to the negotiation of a collective pricing agreement;
- certain terms required to be included in the collective pricing agreement; and
- the imposition of a two year time limit on its authorisation.

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[88] The Petroleum Exploration Association of New Zealand, of which the Applicants are members, provided a submission which generally supported the Applicants' arguments on conditions.
[89] Decision 221, 15 September 1988 (*New Zealand Kiwifruit Exporters Association (Inc)as agents for and on behalf of the New Zealand Kiwifruit Growers and the New Zealand Kiwifruit Coolstorers Association (Inc)*).
[90] Under s 65(1)(c) of the Act.

530. In previous Decisions the Commission has considered the following factors as relevant in considering when and what sort of conditions it should impose[91]:

- the discretion given to the Commission appears to be wide, subject only to the important qualification of consistency with the Act;
- conditions designed to enhance competition or to remove detriments following from the absence of competition could be appropriate;
- conditions designed to help ensure the continuation or effectiveness of public benefit found to exist in respect of any application could also be considered;
- the enforceability of the conditions is important, particularly if used to "tip the balance" in favour of authorisation;
- the Commission will take into account considerations such as compliance costs for the parties, enforceability, precision, monitoring, etc when imposing such conditions; and
- it is important that any authorisation not hinder or stand in the way of an industry review or organisation. In such cases it may be necessary to grant the authorisation for a limited period only.

531. The Commission has considered these factors in this Determination. It has imposed conditions because, without the conditions, it cannot be satisfied that the benefits from the Arrangement will necessarily outweigh the detriments arising from the lessening of competition inherent in the Arrangement. The realisation of the identified benefits relate to the early gas production from the field. The Commission considers a time related condition necessary to provide the requisite incentives to achieve that. In this regard the Commission considers that the Applicants' insistence that conditions may only be imposed if necessary to "tip the balance" (of the benefits over the detriments arising from the Arrangement) is not the correct approach. In the *Kiwi Exporters Association* case, the Commission noted that conditions could be used to enhance competition, remove detriments flowing from an absence of competition, ensure the continuation of public benefits and ensure the effectiveness of public benefits. As a rider to that list, the Commission added that enforceability of conditions was also important, particularly if the conditions imposed tipped the balance. So the tipping the balance reference went to enforceability and not to the ability to impose conditions as claimed by the Applicants.

532. The Commission considers that there will be cases where potential benefits may exceed detriments by a considerable margin, but that conditions may be necessary to allow the Commission to attempt to achieve more certainty that the potential benefits will be achieved, or the future detriments contained.

533. As discussed below, condition one is intended to lock in the potential benefits claimed by the Applicants. Conditions two and three are intended to remove or reduce future detriments which result from the lessening of competition.

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[91] *Re NZ Kiwifruit Exporters Assn (Inc)/NZ Kiwifruit Coolstores Assn (Inc)* (1989) 2 NZBLC 104, 485, 104,510-104,512; paras 7.4 and 7.10).

534. The Commission considers that when considering conditions, it must observe the principles of natural justice. The Commission provided the Applicants and other interested parties (who had previously made submissions) with an opportunity to make submissions on the drafts of the three conditions now imposed. In arriving at the final form of the conditions now imposed, the Commission carefully considered, and took full account of those submissions.

535. Without conditions, the Commission considers on the balance of probabilities that there is a not a sufficiently high probability that the claimed benefits will be achieved or that the detriments will be contained at levels sufficient to allow there to be a positive balance of benefits over detriments. The Commission considers on the balance of probabilities that for it to achieve a greater level of certainty that the public benefits will outweigh the detriments:

- there must be an increased likelihood that the Applicants will achieve earlier full production of gas, condensate and LPG from the Pohokura field;
- it is necessary to guard against future, unforeseen, additional detriments arising from any changes, whether by alterations of the proportions of the individual participating interests of the Applicants or by introduction of new participants, to the ownership of participating interests in the Pohokura JV; and
- it is necessary to diminish the risk of detriments arising from the Applicants' ability to engage in undesirable or anti-competitive price discrimination.

536. The Commission considers that, on the balance of probabilities, these objectives can be achieved by the imposition of three conditions which are individually discussed below.

Condition One - Incentive on Applicants to Attain their Stated Date for the Achievement of Full Production from the Pohokura Field

537. *The Arrangement, as it applies to the carrying out of additional joint marketing and sale of gas for the period after 30 June 2006, is authorised only if the Pohokura field and its associated off-shore, and on-shore, gas production equipment is fully operational before 30 June 2006.*

538. *For the purposes of Condition One:*

- *the Arrangement to jointly market and sell gas includes the following:*
  - *the Pohokura Joint Venture discussing and agreeing on all relevant terms and conditions, including price, quantity, rate, specification and liability of the joint sale of gas from the Pohokura field; and*
  - *the Pohokura Joint Venture negotiating and entering into contracts for the sale of Pohokura gas jointly;*
- *fully operational means that the Pohokura field and its associated off-shore, and on-shore, gas production equipment is installed, commissioned and is capable of producing at least 60 petajoules of gas per annum; and*

- *the date of 30 June 2006 may be extended by the Commission on application by the Applicants for the period of any delay which the Commission considers was caused by events beyond the Applicants' reasonable control.*

539. *For the avoidance of doubt, the Arrangement to jointly market and sell gas from the Pohokura field is authorised until 30 June 2006. The marketing and sale of gas by way of contracts agreed before 30 June 2006, but which extend beyond that date, remains authorised notwithstanding that the Pohokura field and its associated off-shore, and on-shore, equipment is not fully operational before 30 June 2006.*

540. The Commission in its letter of 24 July 2003 proposed the following condition:

> - the Arrangement to jointly market and sell gas includes the following:
>   - the Pohokura Joint Venture discussing and agreeing on all relevant terms and conditions, including price, quantity, rate, specification and liability of the joint sale of gas from the Pohokura field; and
>   - the Pohokura Joint Venture negotiating and entering into contracts for the sale of Pohokura gas jointly;
> - full production capability means the production capability which is required to allow the Pohokura field and its associated off-shore, and on-shore, gas production equipment to produce 70 petajoules of gas per annum; and
> - the date of 30 June 2006 may be extended by the Commission on application by the Applicants for the period of any delay which the Commission considers was caused by events beyond the Applicants' reasonable control.
>
> For the avoidance of doubt, the Arrangement to jointly market and sell gas from the Pohokura field is authorised until 30 June 2006 and joint marketing and entering into contracts prior to that date remain authorised notwithstanding a failure to achieve full production capability by 30 June 2006.

541. As discussed above, submissions were received that the uncertainty of cash flow from gas sales, possibly engendered by this approach, would be likely to render the Pohokura development "un-bankable". The Applicants submitted that:

- project estimates are at best 50:50;
- it is equally probable that they will be missed as it is that they will be bettered; and
- production from Maui A was delayed by one year and that from Maui B by four months.

542. The Applicant's' submission of 7 August 2002 on the proposed condition stated that:

- it rejected any condition linking authorisation to an output from the Pohokura field of 70 PJ/annum,[92] on the basis that there was a real chance that such an output may not be the appropriate figure;

[92] The Applicants' own estimate of the likely annual output of the field.

- it rejected any condition linking authorisation to 30 June 2006 as the date that full production of gas from the Pohokura field[93] will be achieved, on the basis that there is a substantial chance that date cannot be met;
- there are no guidelines on what is meant by the availability of equipment;
- the date of 30 June 2006 for both achieving full production capability of the filed and availability of equipment can be extended at the sole discretion of the Commission. The only ground for the exercise of this discretion is events beyond the reasonable control of the Applicants. No further guidelines as to the exercise of this discretion are provided; and
- the uncertain operation of this condition will mean that the Applicant would have to make supply obligations under any contracts that may be entered into prior to 30 June 2006 conditional upon satisfying Condition One. The uncertainty surrounding meeting the 30 June 2006 deadline, and the uncertainty of how the Commission will adjudicate on matters under this condition, will mean that the Pohokura joint venture will not be able to enter into contracts which unconditionally commit gas supply on an uninterrupted basis.

543. Ballance and Genesis supported the imposition of this condition. Balance's view was that the condition was necessary because:

> there were parties within the JV that had both the incentive and the power, to delay production from Pohokura in order to maximize their revenue out of other production assets, even to the detriment of their JV partners as well as New Zealand wholesale gas customer. A ideal outcome for these parties in this application is to be both granted permission to joint market, and hence control the price their partners would sell gas at, and to have sufficient delay before production to exploit the current shortage in the gas market with their own assets.

544. NGC also supported the imposition of the condition, but noted that it:

> believes that the proposed incentive of blanket joint marketing after that date is unduly generous, given that the application has been based on the proposition of benefits resulting from full production being achieved by 30 June 2006"

545. Contact, on the other hand considered that condition one places little incentive on the JV parties to expedite actual production.

546. In setting the full production level trigger at 60PJ/annum (the Applicants' current proposal is for 70PJ/annum) the Commission has taken account of the Applicants' submissions that the output of the field has not been finally determined. The Commission has, therefore, decided to allow the Applicants a "production margin". In choosing the 60 PJ/annum figure, the Commission has noted Mr Lloyd Taylor, Chairman of Shell being quoted[94] that "full production [from Pohokura] would be 60 to 80 petajoules a year", presumably an expression of the Applicants' views on the width of any uncertainty surrounding Pohokura's output.

[93] The Applicants' own date at which they plan to achieve full production from the field.
[94] NZPA media report, 27 June 2003

547. The public benefits which the Commission has found to arise from the Arrangement arise from the early production of gas, LPG and condensate from Pohokura. For the Commission to be satisfied on the balance of probabilities that the benefits are likely to outweigh the detriments it wishes there to be a greater likelihood that the Applicants will be incentivesed to achieve early production. It has decided to impose this condition to increase the likelihood of the Applicants achieving earlier (than under the counterfactual) production of gas, condensate and LPG from the Pohokura field. This condition, in addition to their own inherent drivers to begin receiving a return on their investments, should, on the balance of probabilities, mean that the Applicants are more likely to achieve their current estimates of the date of full production capability.

548. The Commission has, therefore, decided that authorisation of the Arrangement will be subject to condition one.

Condition Two - Guarding Against Future, Unforeseen, Additional Detriments Arising from Ownership Changes

549. *Any assignment by the Applicants or any other party acquiring an interest in the Pohokura JV of any part of their rights or interests in the Pohokura field, must be made conditional on the purchaser(s) obtaining from the Commission a clearance pursuant to section 66, or an authorisation pursuant to section 67 of the Commerce Act 1986.*

550. The Commission has noted the Applicants' submissions that it should exercise its discretion under s 58B(2) to extend the benefits of the authorisation to successors and permitted assigns of a participating interest in the Pohokura joint venture. The reasons advanced by the Applicants supporting the exercise of this discretion are:

- new entrants to the Pohokura joint venture will provide a pro-competitive outcome;
- the validity of gas sale contracts will continue during the entire life of the contracts, irrespective of any changes to the Pohokura participating interests;
- financiers of the development would be able enforce their security without restriction; and
- s 47 of the Act provides the Commission with a backstop to deal with any competition concerns wrought by future ownership changes.

551. The Commission in its letter of 24 July 2003 proposed the following condition:

> Any assignment by the Applicants of their rights or interests in the Pohokura field at the date of this authorisation, must be made conditional on the purchaser(s) obtaining from the Commission a clearance pursuant to section 66, or an authorisation pursuant to section 67 of the Commerce Act 1986.

552. The Applicant's' submission of 7 August 2002 on the proposed condition stated that:

- for the Commission to properly impose any conditions it must identify the precise detriment, quantify it and show exactly how the proposed conditions will minimise that detriment;
- in any event, the matter concerned here is appropriately governed by section 47 of the Act;
- the Commission is also unable to impose this condition because it is inconsistent with the Act. When the Act first came into force in 1986, it contained a mandatory pre-merger notification regime. However, the Commerce Amendment Act 1990 repealed this mandatory notification requirement. As from 1 January 1991, there has been a deliberate policy choice made by Parliament that all business acquisitions be subjected to a voluntary notification regime, It would now be inconsistent for the Commission to attempt to impose obligations which previously applied under the Act, but which have now been expressly repealed;
- the condition might not achieve the intended result over time, even if it was assumed to be an appropriate condition (which the Applicants do not accept). For example, the condition could not apply to the situation where a purchaser (other than the Pohokura joint venture parties) proposes to on-sell a participating interest in the field; and
- the condition has the potential to place contracts at risk. Failure to notify the Commission of a transfer may potentially invalidate the authorisation and render unenforceable the supply obligations under existing contracts. The Pohokura joint venture will be unable to offer contracts which unconditionally commit to supply gas as the contracts will need to provide that the supply obligations will come to an end at any time during the term of the contract should there be a unilateral breach of this condition by any one of the Pohokura joint venture parties.

553. The Act does not require the Commission to undertake a quantitative analysis. The Courts have held that the Commission ought to quantify any potential benefits and detriments as far as possible. The Court of Appeal, Richardson J noted that:

> [T]here is in my view a responsibility on a regulatory body to attempt so far as possible to quantify detriments and benefits rather than rely on purely intuitive judgement to justify a conclusion that detriments in fact exceed quantified benefits.[95]

554. The High Court in *Ravensdown Corp Ltd v Commerce Commission*[96] when considering whether or not authorisation should have been given for a merger held:

> What is required is that the Commission make a facts-based assessment of benefits and detriments, adopting a quantitative approach where possible, and on the basis of that assessment decide if it is satisfied the acquisition is at least likely to result in such benefit

[95] *Telecom Corporation of New Zealand Ltd v Commerce Commission* [1992] 2 NZLR 429, 447.
[96] unreported, Panckhurst J and Professor Lattimore, 9 December 1996, HC Wellington AP168/96, p. 50.

> to the public that it should be permitted. In short, the test of likelihood is to be applied at the end of the process.

555. The Commission has as far as possible quantified the benefits and the detriments of the proposed arrangement. The analysis is based on a number of assumptions about possible efficiency gains and losses. These assumptions are inevitable when considering possible outcomes.

556. The purpose in imposing conditions on this authorisation is to provide the Commission with greater certainty, i.e. that there is a greater likelihood that the net benefits arising from this authorisation will be realised.

557. The Commission has attempted to quantify the benefits and detriments of the arrangement. The purpose of imposing the conditions is to satisfy the Commission that the net benefits arising form the authorisation are more likely to be realised. There is no requirement on the Commission to quantify their effect.

558. While in essence the Commission agrees that the issue can be addressed by s 47, as that is the basis of the condition, the Commission does not agree with the Applicants' contention that the Commission is not acting in accordance with the policy and spirit of the Act because the Act imposes a voluntary notification procedure for clearances.

559. The Commission notes that the purpose of the Act is provided in s 1A of the Act:

> The purpose of this Act is to promote competition in markets for the long-term benefit of consumers within New Zealand.

560. The purpose of condition two is to mitigate the adverse impact on competition from allowing joint marketing of gas in this case for the long term benefit on consumers. This is in accord with the policy and spirit of the Act.

561. The Commission has exercised its discretion under s 58B(2) of the Act to extend the benefits of the authorisation to successors and permitted assignments of a participating interest in the Pohokura joint venture. The exercise of this discretion avoids the need by successors to seek a variation to the authorised practice so that it applies to them on assignment.

562. The Commission is authorising a practice that is otherwise unlawful. The Commission is seeking to be certain of the benefits or reduce the detriments of the practice to be authorised. If the Commission considers that it is necessary or desirable to monitor who is a party to the authorised arrangement, a compulsory application under s 66 meets that concern. The Commission's s 66 approach is a practical alternative to the variation procedure under s 65 of the Act. The Commission has sought to balance the Applicant's commercial interests with the need to ensure benefits are certain and detriments are reduced.

563. The Commission remains concerned that future ownership changes in the participating interests in the Pohokura JV may result in unforeseen and additional detriments to those discussed above or that the claimed benefits might not be achieved. The Commission acknowledges that s 47 of the Act does provide the Commission with an avenue to investigate and, if necessary, litigate on future competition concerns resulting from ownership changes. However, the Commission has at times found itself administratively disadvantaged in respect of the application of s 47 of the Act. The Commission notes the recent acquisition of Preussag's participating interest in the Pohokura JV by Todd and OMV. In the case of Todd, after learning of the matter by chance, the Commission was forced to consider seeking an injunction to allow it time to investigate the competitive implications of Todd's acquisition. The Commission is concerned that there is a risk that an acquisition of a Pohokura participating interest could be completed before it learnt of it, hence the imposition of this condition requiring any assignment of a participating interest to be made subject to the acquisition of a clearance by the acquirer.

564. NGC, Ballance, Genesis and Contact all supported, without qualification, the imposition of this condition.

565. The Commission has noted the Applicant's submission that this condition should apply equally to the existing Pohokura JV parties and to any future new entrant into the joint venture, which in turn wished to on-sell a participating interest, and has allowed for this contingency in the condition.

566. The Commission has, therefore, decided that authorisation of the Arrangement will be subject to condition two.

Condition Three - Diminishing the Risk of Detriments Arising from the Applicants Engaging in Undesirable or Anti-competitive Price Discrimination

567. *The Applicants or any other party acquiring an interest in the Pohokura Joint Venture must not enter into any contract for the sale of gas from the Pohokura field which contains terms or conditions which limit or restrict the resale of the gas to third parties.*

568. The Commission in its letter of 24 July 2003 proposed the following condition:

> The Applicants shall not refuse to enter into contracts for the sale of gas from the Pohokura field, by reason only of the purchasers of gas not accepting restrictions on the resale of gas.

569. The Applicant's' submission of 7 August 2002 on the proposed condition stated that:

- future contracts between the Applicants and purchasers of gas will, appropriately, be governed by s 27 of the Act.;

- a blanket prohibition runs the risk of locking in detriments where buyer or demand-side market power exists or where price discrimination has pro-competitive outcomes; and
- the imposition of condition three would mean that the Pohokura joint venture will not be able to offer contracts which provide an unconditional commitment to supply gas as it would be open to any unsuccessful bidder to engage in problematic gaming.

570. The Commission noted in the draft determination its concerns that the Applicants' ability to price discriminate could lead to higher prices of gas overall. The ACCC considered restriction of resale of gas in its decision involving South Australian Cooper Basin (1996). The ACCC expressed concern with the possible effects that a restriction on resale of gas might have.

571. The ACCC found that a contractual restriction imposed by the gas supplier on resale of gas to be anti-competitive to the extent that it restricted the potential for the development of inter-basin competition downstream between producers in supplying customers in New South Wales, thereby preserving the market power of the South Australian Cooper Basin producers.[97]

572. In this regard, the Commission notes the submission of Professor Evans for the Applicants, when, as part a discussion at the Commission's Conference about the implications of the Arrangement on the development of a wholesale gas market, he said:

> …for example, if you can offer long-term contract that have resale clauses attached to them, then you're in – you are creating another seller of gas. And so, in that way if you can facilitate that operation, in the context of the New Zealand market, it is facilitating competition and the development of the market,

and

> I think, having a set of contracts for which reselling is possible would generally be the outcome and would assist the development of the market, but I don't think necessarily that all contracts should.

573. Further, Mr Salisbury for the Applicants, in response to a question from the Commission as to whether the Applicants would have difficulty with a condition that said that there would be no restrictions on resale, said:

> No, I'm suggesting that it would normally not be something we would do, but there might be situations where we would consider it warranted, depending on how the negotiations went with the customer. Remember the customer has market power and leverage as well.

574. Finally, Mr Tweedie of Todd noted that the Applicants, as part of CRA's submission on the draft determination, had provided the following information:

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[97] Australian Gas Light Company (1996) ATPR (Com) 50223, 56346 at 56371

> A key condition for price discrimination is that buyers cannot resell the product. We are advised by the joint venture parties that they will not unreasonably restrict the resale of gas. This will have the effect of substantially ameliorating the prospects for discrimination.

575. Mr Tweedie said there could be a situation where there was a large gas load going to one customer (he instanced an electricity generator) that had specific arrangements for gas transmission and/or distribution together with other special contractual provisions. He said in such a case a provision preventing on-sale of the gas would not be unreasonable.

576. These statements were consistent with those of Contact and Ballance. Contact, for example, in its submission on the draft determination noted:

> The authorisation of the application will severely limit competition in the production sector. If purchasers are unable to, or are restricted in their ability to, on-sell gas purchased from producer, the wholesale level of the market will be similarly constrained. In addition, on-sale restrictions would eliminate the ability of purchasers to arbitrage away different prices arising from price discrimination. It is appropriate, therefore, that an authorisation be subject to the condition that the JV parties are unable to impose on-sale restrictions on purchasers under contracts covered by the authorisation.

577. The Commission has in the past noted that restrictions included in gas sale and purchase contracts on re-sale of gas to third parties might be anti-competitive and unenforceable.[98] Therefore, to lessen concerns such as those expressed in Contact's submission and in Decision 270, the Commission has decided to impose a condition preventing restrictions on re-sale.

578. NGC, Ballance, Genesis and Contact all supported the principle behind this condition. Genesis noted an efficiency effect in that:

> Given that purchasers may have limited ability to negotiate the terms and condition of supply contracts this contingency for purchasers may facilitate the conclusion of supply agreements and limit delays.

579. The Commission had intended this condition to read as "the Applicants shall not refuse to enter into contracts for the sale of Pohokura gas by reason only of the purchasers of gas not accepting restrictions on the resale of gas". Ballance and Contact, however, argued that the condition would be difficult for the Commission to enforce in what would be an uneven bargaining environment. Ballance stated that:

> If the Applicants were unwilling to give the purchaser[s] the freedom to on-sell it would be relatively easy to point them [the purchasers] into the "right direction" by making the alternative unattractive through other contract provisions, including price.

580. Contact submitted that:

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[98] See Decision 270, *Natural Gas Corporation of New Zealand Ltd/Enerco Ltd 21 December 1993* re restrictions on Electricity Corporation of New Zealand's ability to re-sell gas available to it from the Maui field in quantities greater than 5 PJ/annum.

> It is unclear what sort of information would be required by the Commission to demonstrate that the Applicants have refused to enter into a contract "by reason only" of a refusal by purchasers to accept on-sale restriction.

581. The Commission accepts these latter submissions and has consequently amended the wording of condition three.

582. The Commission has, therefore decided that authorisation of the Arrangement will be subject to condition three.

OVERALL CONCLUSION

583. The Commission acknowledges that the Arrangement has the potential to deliver the benefits outlined in this Determination, however, the Commission shall not make a determination granting an authorisation unless it is satisfied that the Arrangement to which the Application relates, will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening of competition that would result, or would be likely to result or is deemed to result therefrom. The Commission is not satisfied that the benefits will in fact be delivered so that they would outweigh the lessening of competition that would result or be likely to result. In these circumstances the Commission would decline to grant an authorisation under s 61(6) of the Act.

584. However, with the imposition of certain conditions, the Commission is satisfied that the Arrangement to which the Application relates, will in all the circumstances result, or be likely to result, in a benefit to the public which would outweigh the lessening of competition that would result, or would be likely to result or is deemed to result therefrom.

DETERMINATION

585. Pursuant to s 61(1)(a) of the Act, the Commission grants authorisation for:

- OMV New Zealand Limited;
- Shell Exploration New Zealand Limited and Shell (Petroleum Mining) Company Limited;
- Todd (Petroleum Mining Company) Limited; and
- any person who becomes a party to the Pohokura joint venture,

to enter into arrangements to jointly market and sell gas produced from the Pohokura field.

586. The authorisation is subject to the following conditions:

(1) The Arrangement, as it applies to the carrying out of additional joint marketing and sale of gas for the period after 30 June 2006, is authorised only if the Pohokura field and its associated off-shore, and on-shore, gas production equipment is fully operational before 30 June 2006.

For the purposes of Condition One:

- the Arrangement to jointly market and sell gas includes the following:
  - the Pohokura Joint Venture discussing and agreeing on all relevant terms and conditions, including price, quantity, rate, specification and liability of the joint sale of gas from the Pohokura field; and
  - the Pohokura Joint Venture negotiating and entering into contracts for the sale of Pohokura gas jointly;
- fully operational means that the Pohokura field and its associated off-shore, and on-shore, gas production equipment is installed, commissioned and is capable of producing at least 60 petajoules of gas per annum; and
- the date of 30 June 2006 may be extended by the Commission on application by the Applicants for the period of any delay which the Commission considers was caused by events beyond the Applicants' reasonable control.

For the avoidance of doubt, the Arrangement to jointly market and sell gas from the Pohokura field is authorised until 30 June 2006. The marketing and sale of gas by way of contracts agreed before 30 June 2006 but which extend beyond that date, remains authorised notwithstanding that the Pohokura field and its associated off-shore, and on-shore, equipment is not fully operational before 30 June 2006.

(2) Any assignment by the Applicants or any other party acquiring an interest in the Pohokura JV of any part of their rights or interests in the Pohokura field, must be made conditional on the purchaser(s) obtaining from the

Commission a clearance pursuant to section 66, or an authorisation pursuant to section 67 of the Commerce Act 1986.

(3) The Applicants or any other party acquiring an interest in the Pohokura Joint Venture must not enter into any contract for the sale of gas from the Pohokura field which contains terms or conditions which limit or restrict the resale of the gas to third parties.

Dated 1 September 2003

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Paula Rebstock
Acting Chair

APPENDIX 1 – THE GAS INDUSTRY GPS

March 2003

Government Policy Statement

Development of New Zealand's Gas Industry

This statement sets out the Government's policy for the development of New Zealand's gas industry, and its expectations for industry action.

Introduction

1. The Government is committed to a sustainable and efficient energy future. Natural gas will play a significant part in achieving that commitment.

2. The expected end of the life of the Maui gas field signals the need for significant changes in gas supply arrangements. Production from an increased number of smaller gas fields will require more sophisticated pro-competitive market arrangements, including improved arrangements for gas balancing and reconciliation.

3. The Government welcomes investment in exploration and development of new gas fields. The Crown Minerals Act and the Minerals Programme for Petroleum set out clear policies and procedures to facilitate exploration and development including an internationally competitive and attractive royalty regime.

4. The Government's policy for gas is consistent with the overall outcomes it seeks from its Energy Policy Framework, released in October 2000. These overall energy policy objectives are:

a. environmental sustainability, including continuing improvement in energy efficiency and a progressive transition to renewable sources of energy;

b. reliable and secure supply of essential energy services;

c. costs and prices to consumers which are as low as possible while ensuring that prices reflect the full cost of supply including environmental costs;

d. fairness in pricing, so that the least advantaged in the community have access to energy services at reasonable prices; and

e. continued public ownership of publicly owned assets.

Evolution of gas industry arrangements

5. The Government wishes to see further development of gas market arrangements, and has established the following policy objective, outcomes and guiding principles for the evolution of gas industry arrangements.

Policy objective, outcomes and guiding principles for the gas industry

The Government's overall policy objective for gas is:

"To ensure that gas is delivered to existing and new customers in a safe, efficient, fair, reliable, and environmentally sustainable manner."

Industry arrangements should promote the satisfaction of consumers' gas requirements in a manner that is least-cost to the economy as a whole and is consistent with sustainable development.

Consistent with this overall objective, the Government is seeking the following specific outcomes:

a. gas resources are used efficiently;

b. market barriers to gas exploration and field development are minimised;

c. the costs of producing and transporting gas are signalled so that investors and consumers can make decisions consistent with obtaining the most value from gas;

d. delivered gas costs and prices are subject to sustained downward pressure;

e. the quality of gas services, and in particular trade-offs between quality and price, should as far as possible reflect customers' preferences;

f. risks relating to security of supply, including transport arrangements, are properly and efficiently managed by all parties;

g. gas safety is promoted; and

h. greenhouse gas emissions are minimised.

To meet this policy objective and outcomes, gas industry participants, in conjunction with consumers, should ensure that arrangements are developed to meet the requirements of this Government Policy Statement. The arrangements should be consistent with the following guiding principles. In particular, the arrangements should:

a. enjoy wide support from supply-side gas market participants and consumers;

b. promote enhanced competition, including inter-fuel competition, wherever

possible and, where it is not, seek outcomes that mirror as far as possible those that would apply in competitive markets;

c. be stable over time so that investment is encouraged;

d. ensure there are mechanisms to reduce demand when gas is scarce;

e. be consistent with government policies on climate change and energy efficiency; and

f. be consistent with the Commerce Act 1986 and all other relevant laws.

Industry-led solutions

6. To meet its objective and outcomes for the gas sector, the Government favours industry-led solutions where possible, but is prepared to use regulatory solutions where necessary.

7. The Government invites the gas industry to establish:

- a governance structure and decision-making process to manage the further development of gas market arrangements in the areas that are set out below; and

- a work programme that enables the development of efficient gas market arrangements in a timely and effective manner.

8. Principles guiding the development of governance structures. The governing entity must:

- be representative of all stakeholders, including consumers;

- have an independent chair;

- have a majority of independent persons (any director, employee or significant shareholder of the supply side of the industry does not meet the test of independence);

- have the independent members appointed after consultation with the Minister of Energy;

- not operate in the interests of individual participants; and

- have the power to develop and enforce arrangements consistent with the Government Policy Statement.

9. The Government expects the industry, including consumer representatives, to develop arrangements with respect to:

Production and Wholesale Markets

- The development of protocols, standards and conventions applying to wholesale gas trading, including quality standards, balancing and reconciliation.

- The development of a secondary market for the trading of excess and shortfall quantities of gas.

- The development of capacity trading arrangements.

Transmission and Distribution Networks

- The establishment of an open access regime across all high-pressure transmission pipelines so that gas market participants can access transmission pipelines on reasonable terms and conditions.

- The establishment of consistent standards and protocols across all distribution pipelines so that gas market participants can access distribution pipelines on reasonable terms and conditions.

- The establishment of gas flow measurement arrangements to enable effective control and management of gas.

Retail Markets

- The standardisation and upgrading of protocols relating to customer switching, so that barriers to customer switching are minimised.

- The development of efficient and effective arrangements for the proper handling of consumer complaints.

- The development of model consumer contracts that are fair to consumers and retailers.

Gas Safety

- The establishment and delivery of effective and internationally consistent safety standards and conventions.

- The ensuring of the competency of all those undertaking gas work.

- The operation of effective self-audit, monitoring and reporting on levels of competency and safety compliance.

Open Access to the Maui Pipeline

The Government recognises that there is demand to enable non-Maui gas to use the Maui pipeline to assist with the ongoing supply of gas to markets north of Taranaki. The Maui contracts (to which the Government is a party) currently preclude non-Maui gas from using the Maui pipeline before 2009.

The Government, as a party to the Maui contracts, invites Maui Developments Ltd, the Natural Gas Corporation, Contact Energy and Methanex to present it with a proposal to enable open access to the Maui pipeline consistent with the following approach:

- The Government does not seek to improve its current commercial position as a result of a move to open access;
- The Government, however, seeks to maintain the value of its existing contractual rights;
- The Government will not accept any increase in the risk it faces as a party to the Maui contracts as a result of the move to open access; and
- The open access arrangements need to provide non-discriminatory access to all potential users and not be biased towards those with an existing contractual interest in the Maui pipeline.

Government oversight

10. The Government will monitor the industry's progress in developing the arrangements outlined under "Industry-led solutions" above. Gas industry participants, in conjunction with consumers, should report to the Minister of Energy each quarter on progress. The reports should be presented by a representative or representatives selected for the purpose by gas industry participants and consumers.

11. The first report is expected by 31 March 2003. That report should comment on the institutional arrangements, process and timetable (including measurable milestones) for the work programme envisaged in paragraph 7.

12. The Government expects that efficient industry arrangements will be in place by December 2004.

13. If progress towards the measurable milestones is unsatisfactory, the Government will consider regulatory solutions.

Hon Pete Hodgson
Minister of Energy

APPENDIX 2 – THE POHOKURA GPS

Government Policy Statement on the Importance of the Pohokura Gas Field for Energy Security

Hon Pete Hodgson

Minister of Energy

April 2003

The Maui re-determination has put economically recoverable reserves at 3,562PJ. This is considerably less than earlier industry expectations, and raises medium-term security of supply issues.

Pohokura is the only significant new gas field (over 500PJ) that can be brought into commercial production quickly.

Gas from Pohokura needs to be available in a timeframe and manner that ensures that national energy security and economic growth interests are met.

Gas Policy

The expected end of the life of the Maui gas field signals the need for significant changes in gas supply arrangements in the New Zealand market. Production from an increased number of smaller gas fields will require more sophisticated market arrangements, including improved arrangements for gas balancing and reconciliation than currently exist.

The Government's policy for the development of New Zealand's gas industry, and its expectations for industry action, is outlined in its *Government Policy Statement - Development of New Zealand's Gas Industry*.

That policy statement outlines the Government's expectations for better gas wholesale market arrangements and industry governance structures. This includes developing open access arrangements to the Maui pipeline.

This additional policy statement sets out the Government's views on the importance of the development of the Pohokura gas field to help remove uncertainty about New Zealand's medium-term energy security including facilitation of early decisions on new electricity generation investment.

Energy Security Risks

Gas is an important fuel for electricity generation. Currently New Zealand has 2,134MW of gas powered thermal generation capacity. With over 60 percent of New Zealand's generation based on hydro, thermal capacity is important for base load generation as well as for dry-year reserve.

With steadily increasing demand for electricity, New Zealand needs an additional 150MW of electricity generation per annum to meet demand growth.

New generation capacity is crucial for economic growth. Without the timely construction of new generation, supply will be insufficient (even with significant improvements in energy efficiency and demand management) and electricity prices will rise substantially.

Renewable energy will play an increasingly important role in New Zealand's electricity generation mix. The National Energy Efficiency and Conservation Strategy targets at least a 20 percent improvement in energy efficiency and an additional 30 petajoules (PJ) of consumer energy from renewable sources by 2012. These outcomes are a key part of New Zealand's climate change policy.

Notwithstanding these initiatives, gas will continue to be an important fuel for electricity generation. It is a premium fuel for large-scale generation plant. Direct use of gas will also continue to be an important component of New Zealand's energy future.

The petrochemical industry has been a major user of gas. It has been anticipated that petrochemical production would substantially reduce as the Maui field declined and gas at the Maui Contract price had been exhausted. However, a buoyant world market for methanol and the need to service the Asia Pacific region mean that New Zealand petrochemical production could continue for several years. Consequently, there is uncertainty where new gas will be used.

Uncertainty of Gas Supply - Maui Re-determination

For over two decades, Maui has dominated the New Zealand gas market. Due to its plentiful gas supply and the nature of the Maui contract, gas prices are significantly lower than world prices. Apart from Maui, a number of smaller fields

are in production. The largest of these are Kapuni, TAWN[1], Mangahewa, McKee and Rimu.

As a result of low gas prices, until recently, incentives for petroleum exploration have been muted. With the expected decline of Maui, exploration has increased significantly over the last few years. Currently there are 68 exploration permits / licences granted over seven basins.

The next commercial field of any significant size that is expected to be brought into production as Maui declines is Pohokura (reserves estimated at 600-700PJ). Gas from the Kupe field is also a possibility, but it is known to be a technically challenging and expensive field to develop. There are some interesting structures (possibly Pohokura size) off the East Coast of the lower North Island and Canterbury. However, the absence of gas transmission infrastructure in these regions reduces the likelihood they will be developed in the near future.

A recent re-determination of the Maui field has put economically recoverable reserves (ERR) at 3,562PJ. This is considerably less than earlier industry expectations. At 7 February 2003, there was only 352PJ of Maui gas remaining at Maui contract prices. This has substantially brought forward the need for production from new gas fields, especially for electricity generation.

Pohokura and the National Interest

Pohokura is the only sizeable commercial field available to meet the requirement for significant quantities of new gas.

The Government recognises that it is not certain that gas from Pohokura will be secured for electricity generation. However, investment decisions on a number of generation projects are currently on hold until there is greater certainty on the future of gas supply. The timely supply of gas from Pohokura is, therefore, important to provide greater certainty over where the gas is used, enabling new generation investment decisions (whether gas or alternative fuels) to be made.

Accordingly, gas from Pohokura needs to be successfully marketed and in production in a timeframe and manner that ensures that national energy security and economic growth interests are met. This is particularly important to ensure that new electricity generation projects can be built in a timely manner to meet growing electricity demand.

1.Comprised of four small fields - Tariki, Ahuroa, Waihapa and Ngaere.

APPENDIX 3 - INFORMATION SOURCES

Written submissions were received from the following parties:

- Natural Gas Corporation Ltd ("NGC");
- The New Zealand Refining Company Ltd ("the NZRC");
- Ballance Agri-Nutrients (Kapuni) Ltd ("Ballance");
- Genesis Power Ltd ("Genesis");
- Mighty River Power Ltd ("MRP");
- Pacific Tiger Energy Ltd ("Pacific Tiger") ;
- Nova Gas Ltd ("Nova");
- Carter Holt Harvey Ltd ("CHH");
- Indo-Pacific Energy Ltd ("Indo-Pacific");
- Major Electricity Users Group ("MEUG");
- Contact Energy Ltd ("Contact"); and
- Fletcher Challenge Forests Ltd.

Additional information and opinions on the issues raised by the Applicants were obtained during discussions with:

- The Australian Competition and Consumer Commission ("the ACCC");
- OMV;
- CHH;
- Auckland Gas Ltd ("Auckland Gas");
- Methanex New Zealand Limited ("Methanex");
- Greymouth Petroleum Limited ("Greymouth Petroleum");
- Swift Energy New Zealand Ltd ("Swift");
- Victorian Energy Networks Corporation ("VENCorp");
- TXU Australia Pty Ltd ("TXU");
- Origin Energy Ltd ("Origin");
- NGC;
- Contact;
- New Zealand Oil and Gas Ltd ("NZOG");
- Australian Worldwide Exploration Ltd ("AWE");
- Ministry of Economic Development ("the MED") Energy Markets Policy Group;
- The MED – Crown Minerals Group;
- Woodside Petroleum Ltd ("Woodside");
- Ballance;
- Fonterra Cooperative Group Ltd ("Fonterra");
- Keith Turner (as a private individual);
- Westech Energy Limited ("Westech");
- Bridge Petroleum Limited;
- Vector/United Networks Limited ("Vector/United Networks");
- Genesis; and
- The Association of International Petroleum Negotiators ("the AIPN").

The following parties provided written submissions on the draft determination:

- The Applicants;
- Shell;
- The MED;
- Ballance;
- Contact;
- Genesis;
- MEUG;
- Methanex;
- NGC;
- Petroleum Exploration Association of New Zealand ("PEANZ"); and
- Wanganui Gas