Submission by NGC on the Application For Authorisation of a Restrictive Trade Practice by Preussag Energie Gmbh, Shell Exploration New Zealand Limited/Shell (Petroleum Mining) Limited and Todd (Petroleum Mining Company) Limited

28 February 2003

Introduction

NGC welcomes the opportunity to make a submission on the Pohokura Joint Venture's application for authorisation of a restrictive trade practice to jointly market and sell the gas produced from the field. The NGC Group of Companies is involved in the transportation and wholesaling of natural gas in New Zealand. This submission is made on behalf of the NGC Group of Companies by NGC Energy Limited.

NGC strongly supports the early development of the Pohokura and other gas fields to ensure a diverse and reliable gas supply. The future energy supply for the country relies on the existence of a strong competitive exploration and production sector. Given the anticipated early wind down of the Maui field, the early development of other fields is a critical issue. NGC acknowledges that wellhead prices need to be higher than the historic Maui price to attract exploration and ensure economic viability of discoveries. Nevertheless, this price rise should be a result of market conditions and normal competitive processes, so it is necessary to ensure there are robust arrangements in place that allow the effective development of the gas sector.

The Government has indicated a preferred policy direction for the gas sector in the draft Government Policy Statement, calling for "more sophisticated pro-competitive arrangements" and adopting as one of the guiding principles the promotion of enhanced competition[1]. However, the Australian Competition and Consumer Commission (ACCC) has sounded a relevant warning in relation to gas industry reforms[2]

> *The development of effective competition in both downstream and upstream gas markets in Australia is of vital concern to the ACCC. The reforms implemented to provide pipeline access should drive greater competition in the downstream gas retail markets. However, the benefits of these reforms may be severely limited or not eventuate if there is a lack of competition upstream.*

This statement applies as much, if not more, to New Zealand as to Australia, given the limited opportunities for gas production development in this country.

This submission describes the:

- Competition issues related to this application;
- Background to the New Zealand gas industry;
- Background to the Australian gas industry;
- Separate marketing of gas in New Zealand; and
- Potential for inappropriate information flows and coordination of marketing activity between Pohokura and other fields, and steps that could be taken to alleviate these concerns.

In summary, NGC considers that for a joint marketing authorisation to be granted, the issues raised in this submission would need to be addressed, including by way of conditions. NGC is a longstanding gas wholesaler, and is appropriately identified in the application as a potential purchaser of gas from Pohokura. Put simply, NGC supports the early development of Pohokura, but looks to this

[1] Minister of Energy, *Draft Government Policy Statement: Development of New Zealand's Gas Industry,* 6 November 2002.
[2] ACCC media release, *Wake up call to governments to increase gas competition*, Allan Asher Deputy Chairman, 15 October 1998.

authorisation process to ensure that it can participate as a purchaser on appropriately competitive terms.

Competition Issues

NGC agrees with the applicant's definition of national gas markets for production and wholesaling without the pre and post 2009 time delineation which was used by the Commission in Decision 408.

In terms of competition principles, there is a group of related issues raised by the application:

a) Lessening of competition between joint venture partners with respect to Pohokura gas – this is potentially significant in light of the small number of participants in the New Zealand market, including because of Shell's acquisition of Fletcher Challenge Energy;
b) Lessening of competition between fields - again because of the limited number of participants in the market, one or more of the partners could, depending on the marketing arrangements for Pohokura gas, obtain the power to set a minimum price and other key terms across the production sector;
c) Potential distortion of the supply chain - at least one joint venture partner owns a company named as a potential buyer in the application. This company will have access to information supplied by other buyers if the authorisation were granted without conditions; and
d) No constraints on market power of seller – given the current and predicted characteristics of the market, the applicant's proposed constraints do not appear to be robust.

Overall, this proposal would lessen competition on contract terms, price, allocation of production and reserves risks.

The Commission has had extensive discussion of the independence of Shell and Todd in past Decisions (408 and 411) and did not appear convinced of the arguments put forward by Shell at the time. In competition terms, this proposal appears to further reduce whatever independence there may be between Shell, Todd and OMV.

The application presents a case for the "necessity for joint marketing". It is acknowledged that early development of the field would have benefits and that joint marketing may, in some cases, promote such benefits. For small fields this argument is particularly relevant. However, it is important that the Commission focus on the particular features of the New Zealand market and the implications for downstream markets and competition. The market circumstances and conditions applied to the authorisations in the overseas cases cited by the applicants differ significantly from this application.

The impacts on competition between fields in New Zealand will depend on detailed arrangements for joint marketing and decision-making in respect of sales of Pohokura gas. For example, if any joint venture participant can veto a sale or has the ability to set a floor price for sales, this will significantly facilitate cross-field coordination of pricing. This means that the joint venture governance arrangements in respect of marketing arrangements need to be scrutinized in a transparent and robust manner. The joint venture operating agreement is appended to the application, however the confidentiality restriction prevents submitters' assessment of whether any of these issues are addressed adequately, if at all.

These issues show that there is an important preliminary question of whether an authorisation should be granted in the very general terms sought by the applicants, or whether it should only be granted in respect of specific marketing arrangements for a defined period that have been put before the Commission and submitters.

For an authorisation to be granted, the Commission would need to be satisfied that the benefits claimed are significant, given the competition issues identified above. The main benefit claimed is accelerated development of the field. NGC agrees that accelerating the development of the field would give rise to significant benefits, but is not convinced that this is dependent on the proposed marketing arrangement. The application does not demonstrate the benefits claimed. Rather, it asserts that there will be delays of at least 3 years without the proposed arrangements, though no evidence is provided why this should be the case.

Similarly, the confidentiality restrictions in the economic analysis appended to the application make it difficult to test the modelling that supports the claimed benefits, in particular the impact on gas price across fields due to the co-ordination efforts of one or more partners.

New Zealand Industry Background

The New Zealand gas sector is evolving from one dependent on Maui to one of more diverse supply. At the heart of the future development of the downstream markets and services is the degree of competition in the upstream markets, given the small number of participants in a tight supply and demand balance. This circumstance shapes the "playing field" for downstream participants and raises major issues for the sector in terms of the:

- sources of gas over the next 10 years;
- sources of gas over the next 20 years;
- amount of uncontracted or "free" gas supply; and
- supply options available to different participants, for example an aggregator, a small co-generator or a generator.

Gas supply over the next 10 years

Initially, the current producing fields will be providing the majority of the supply. This comprises mainly Maui and Kapuni production, with significant contributions from TAWN and McKee / Mangahewa. There will also be small contributions (less than10 PJ pa) from small fields and discoveries in onshore Taranaki.

In several years, Maui production (170-180 PJ pa) will be replaced by mainly Pohokura (circa 2006) and Kupe production (circa 2007) which will provide approximately 90 PJ pa combined. This supply reduction would be approximately offset by the likely exit of Methanex.

In addition Kapuni gas production may be increased through development of "tight gas".

Gas supply over next 20 years

The following ten years, say 2013-2023, will require further (future) gas discoveries, to replace current gas reserves run-down, including run-down of Pohokura and Kupe around 2020. For the years from 2010 to 2018 the majority of supply for the market (~150 PJ pa) will be from Pohokura (~60-70PJ pa), Kupe (~25-35 PJ pa) and Kapuni (~30 PJ pa).

It is not known where new discoveries will be made, but to be of sufficient size and to be able to be developed in this timeframe would require discoveries of the Pohokura to Maui size being made in the Taranaki basin – most probably offshore north Taranaki.

Uncontracted or "free" gas supply

The consideration of competition issues relating to this application requires an appreciation of the uncontracted or "free" gas supply situation in addition to the total reserves position. Table 1 shows the

committed and "free" gas available from known fields. Pohokura is approximately 74% of currently undeveloped gas reserves. However, 70% of the Kupe gas is held Genesis, so that portion can not really be termed "free". Genesis have stated that they *"had secured gas supplies for the life of the Maui gas field and would then swing over to its 70 per cent-owned Kupe gas field, which was due to begin production in 2006-2007"*[3]. Therefore, Pohokura is in practice 90% of the uncontracted and undeveloped reserves. In respect of developed fields, the McKee / Mangahewa fields account for around 77% of the uncontracted gas (assuming the likely exit of Methanex).

	Shell	Todd	OMV	Genesis	other	Reserves (PJ)	Free Reserves (PJ)	% of Free
Developed Fields								***Developed***
Maui	83.75	6.25	10.0			[ ]		
Kapuni	50.0	50.0				[ ]		
TAWN					100.0	[ ]	[ ]	16
McKee/Mangahewa		100.0				[ ]	[ ]	77
Kaimiro/Ngatoro					100.0	[ ]		
Rimu					100.0	[ ]	[ ]	7
Undeveloped fields								***Undeveloped***
Pohokura	48.00	16.14	35.86			[ ]	[ ]	74
Kupe				70.0	30.0	[ ]	[ ]	25
Rimu/Kauri					100.0	[ ]	[ ]	?
Windsor					100.0	[ ]	[ ]	0.3
Surrey					100.0	[ ]	[ ]	0.2
Kahili					100.0	[ ]	[ ]	0.2

Table 1: NGC Estimates of Free Gas Reserves & Ownership[4]

A similar situation is apparent when the annual production output is considered in Table 2. Pohokura is around 63% of the undeveloped and uncontracted gas production and around 81% when Genesis' share of Kupe is excluded. Of the developed uncontracted production the McKee / Mangahewa fields are 100% (assuming the likely exit of Methanex).

	Shell	Todd	OMV	Genesis	other	Output (PJ/yr)	Free Output (PJ/yr)	% of Free
Developed Fields								***Developed***
Maui	83.75	6.25	10.0			[ ]		
Kapuni	50.0	50.0				[ ]		
TAWN					100.0	[ ]		
McKee/Mangahewa		100.0				[ ]	[ ]	100
Kaimiro/Ngatoro					100.0	[ ]		
Rimu					100.0	[ ]		
Undeveloped fields								***Undeveloped***
Pohokura	48.00	16.14	35.86			[ ]	[ ]	63
Kupe				70.0	30.0	[ ]	[ ]	31
Rimu/Kauri					100.0	[ ]	[ ]	?
Windsor					100.0	[ ]	[ ]	1
Surrey					100.0	[ ]	[ ]	1
Kahili					100.0	[ ]	[ ]	3

Table 2: NGC Estimates of Future Annual Free Gas Production & Ownership

The significance of the limited number of producing fields over the next 10 – 15 years and the interlinking ownership of those fields can be appreciated by considering the future supply options for various classes of buyers looking for gas for the period 2005 – 2015.

[3] C. Daniels, *"Gas bills rise by 16pc*", NZ Herald, 20 February 2003.

[4] Sources: Energy Data File, Maui redetermination final report including AD sands as at 7 Feb 03, reserves information from field operators, Pohokura reserves from Shell published figures (& STOS website), new Maui production rate is yet to be finalised, and production figures for Pohokura and Kupe are development estimates.

Supply options for an aggregator

An aggregator (such as NGC) could purchase gas from any of the fields from the small fields through to a portion of the largest (Pohokura). The small fields require an aggregator to purchase, as a small single producer cannot easily sell to a (large) single user for reasons of security of supply on both sides. Conversely, without major mergers of, or increases in, generation requirements a single user or aggregator is unlikely to be able to purchase the full production from Pohokura - the field will require more than one user sale contract (assuming Methanex' exit).

The aggregators currently in the market would require at least some supply from the larger fields (Pohokura, Kupe and Kapuni) as the smaller fields noted would not total the demand of each of the current aggregators: NGC, Contact, and Genesis.

If NGC or another aggregator required other sources of gas, the only options for this period would be McKee/Mangahewa (Todd), or Pohokura (Shell/Todd/OMV), and possibly Kupe (Genesis/Crown/NZOG) if development proceeds within this timeframe. If Pohokura is marketed separately, then the aggregator would have 3 potential suppliers: Todd (from McKee or Mangahewa or Pohokura), Shell or OMV, and possibly also 1 or 2 suppliers offering Kupe gas (depending on timing and on how it is marketed). OMV in particular can be expected to compete vigorously with Todd to sell its share of the Pohokura gas, and in turn to face competition from Todd's gas from various sources.

But if Pohokura gas is marketed jointly, the options effectively drop to 1, or at best 2-3 – Todd-linked fields, and possibly 1 or 2 suppliers using Kupe gas. In particular, if Todd can determine a floor price for Pohokura gas under the decision-making regime for the proposed joint marketing arrangement, Todd will be able to offer its McKee and Mangahewa gas to the aggregator with knowledge of the floor below which its major "competitor" will not go. This has clear potential to facilitate coordination of pricing across the major gas sources, and result in reduced competition and higher prices at the wellhead, and thus downstream for consumers.

The concern is still more acute if joint marketing is accepted as the norm in New Zealand, as the application appears to suggest should be the case, and Kupe gas is marketed jointly by the Kupe joint venturers (or those of the joint venturers who do not use the gas for electricity generation in their own plants, rather than selling it to third parties).

A middle ground would be for the Pohokura gas to be jointly marketed, but with OMV alone or an independent entity controlling the marketing. This would reduce the number of potential vendors, but would ensure that Pohokura gas was not bid in coordination with other Todd-controlled sources of gas.

Supply options for generator looking for 10 PJ pa for 10 years

A large single user, such as a generator, will require a long term contract of at least 10 years from a large supplier, i.e. either a large field or an aggregator with large entitlements. The only two sources available would be Pohokura and/or Kupe, with the latter possibly not being adequate on a stand alone basis.

The generator would have the same options as the aggregator looking for large quantities of gas. With separate marketing there would be 3 – 5 potential sources. With joint marketing of Pohokura there would be at best 2 sources (if Kupe is adequate on a stand-alone basis) or just 1 (if Pohokura is the only sufficiently large source). This has significant implications for electricity prices, and for the viability of new generation.

Supply options for a small co-generator looking for 3-5 PJ for 10 years

A new small co-generator would also be looking for gas supplies for a minimum 10 year period. It may be supplied by either an aggregator (sourcing its gas as set out above), or direct from a portion of a larger field – e.g. Kiwi co-generation is supplied from Kapuni. A small field may nominally be able to supply a co-generator's requirements, but not security of supply and flexibility requirements. The cogen plant would face essentially the same options for supply as the larger generator – and the number of competing suppliers will depend critically on the arrangements for marketing of Pohokura gas.

Australian Industry Background

The applicants cite the ACCC authorisation for North West Shelf Project[5]. However, there are at least four points from the Australian context that should be considered, namely the:

- full circumstance of, and conditions imposed on, the ACCC authorisation;
- multiple production arrangements at the North West Shelf Project;
- report of the Energy Market Review Panel; and
- emergence of separate marketing in the Australian gas market;

ACCC Authorisation

In the North West Shelf Project case the ACCC stated:

- Separate marketing, where possible, is the preferred method of gas supply contracting (p iv);
- The Western Australian market conditions at that point in time (1998) should not be taken to infer separate marketing is not viable in other gas markets in Australia (p v);
- The applicants were seeking benefits in effect equivalent to a substantial merger of production interests, while not technically falling for consideration as a merger or acquisition, so the authorisation was limited to the existing joint venturers and defined activities (p36);
- the level of actual and potential competition could potentially be hindered where parties to competing joint ventures have common ownership (p 27);
- There was limited competition in the supply of large volume gas supply contracts in WA (p 29); and
- A concern that the gas sector developments may be hampered by an indefinite authorisation meant that time limits were imposed on the authorisation (p vii);

North West Shelf Project

The North West Shelf Project itself appears to address some of the problems raised about separate marketing in that there is the Domgas Venture, the Incremental Venture, and the Production Transfer Agreement to deal, inter alia, with situations where production exceeds the limits of the Domgas Venture. In other words, a combination of specific producer arrangements and conditions of consent specifically addressed potential competition issues and underpinned the approval granted.

Energy Market Review Panel

The Energy Market Review Panel delivered its report *"Towards a Truly National and Efficient Energy Market"* in December 2002. In respect of gas it found that separate marketing, where it can be practically implemented, will encourage a more competitive natural gas market.

[5] ACCC, *Determination - North West Shelf Project*, Authorisation No A90624, 29 July 1998.

The Panel concluded *"that not all the features of a mature market need to be present for separate marketing from joint facilities to be feasible. If they were, separate marketing itself would probably only be academic interest, as a high degree of competition would already be achieved. The existence of secondary markers with associated financial products are outcomes of a mature market, rather than prerequisites for separate marketing. For each gas producing joint venture, some market features will be more important than others in considering the feasibility of separate marketing."*[6]

The report highlights that circumstances will differ between regions within Australia, however it stated that the panel had *"not seen any evidence, beyond generalised comments of complexity and cost, that demonstrates that the Australian field production and processing practices are such as to effectively preclude allocation and balancing mechanisms"*.

Clearly, there can be no single rule for all circumstances, but the report stressed the *"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"*.

This balance of concern about competition issues and need for practical outcomes is reflected in the report's recommendations in respect of gas marketing[7]:

> ***"Encourage greater competition through separate marketing***
>
> *Mandatory notification by joint ventures to the Australian Competition and Consumer Commission of all future joint marketing arrangements.*
>
> *The ACCC conduct case-by-case assessments of the feasibility of separate marketing and any authorisation granted must contain a review date.*
>
> *The Trade Practices Act be amended to preclude jurisdictions from exempting the application of section 45 to joint marketing of natural gas.*
>
> *Existing state exemptions and Commonwealth authorisation 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."*

Separate Marketing in Australia

Recently, separate marketing has occurred in Australia with respect to Victoria's offshore Otway Basin. Woodside Energy Ltd has signed a heads of agreement for the sale of its share of the Geographe and Thylacine gas fields (August 2002) in advance of the commercial terms for joint development being agreed by the joint venturers (February 2003)[8].

Separate Marketing in New Zealand

It may be a practical feature of the current New Zealand environment that completely separate marketing without any coordination on field production parameters is difficult, i.e. the applicant's scenario 2 counterfactual may indeed be impracticable.

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[6] Energy Market Review Panel, *Towards a Truly National and Efficient Energy Market*, Council of Australian Governments, December 2002.
[7] Ibid, p56.
[8] Website: www.otway.woodside.com.au.

The scenario 1 counterfactual of co-ordination on some but not all production parameters, but not on others such as price, appears much less difficult. The CRA report asserts a delay of three years for this scenario 1, but timing is in the hands of the joint venturers – they can be expected to take reasonable steps to resolve normal commercial issues that arise between them. If they agree on a production profile, and allocate entitlements to production in proportion to their ownership shares, with each being entitled but not obliged to take its full share (possibly with minimum take obligations), then each can make separate decisions within those parameters on sales volumes and price.

It is noted that the joint venture has been in place for some time. Other preparations are well advanced (e.g. acquisition of resource consents) and marketing was originally indicated to have occurred much earlier.

If the revenue foregone by additional delay is considered in net present value (NPV) terms it appears that the revenue value lost would be approximately $213m (1 year), $407m (2 years) or $583m (3 years)[9]. These figures equate to around 17%, 32% and 46% of the total revenue NPV respectively (the percentages are independent of price). These figures indicate that it would be economically rational to spend a considerable amount to avoid delay. Note this revenue is only gas, so the incentive is greater when condensates and LPG are considered.

Unless the joint venturers sell all the gas from the field to one purchaser under one contract, the issues raised in the applicant's scenario 1 counterfactual will arise in precisely the same way when it comes to drafting multiple downstream contracts, including allocation of AQ, MDQ, and swing gas, and fixing of future prices despite the absence of a spot market.

Put another way, the issues that arise under scenario 1 can be thought of in the same way that it would be fixed in a sale of the gas to a third party: fixing the terms of three gas contracts; selling the gas from the field to the JV partners, with an overall contract profile determined; allocating AQ and MDQ in proportion to ownership shares; and a mechanism for accounting between themselves. The Commission's Decision 408 points to such an arrangement between the Kapuni Mining Companies (KMCs).

In fact, the current Kapuni field arrangement demonstrates that multiple parties can take gas from the same reservoir and compete to market it to third parties. Following the High Court direction to divide the output of the field under the Kapuni contract in 1997, arrangements were entered into for division of rights to AQ and MDQ under the Kapuni contract between KGCL and the KMCs. Two of the three Pohokura JV partners (Shell and Todd) are involved in those arrangements with NGC having taken over the KGCL position. That is, NGC and the KMCs are simultaneously drawing on the same reservoir to service separately marketed contracts. This is the scenario 1 counterfactual in operation.

These features of the Kapuni arrangements demonstrate that practical solutions can be developed to some of the difficulties asserted in the application.

Information Flows

The structure of the production sector is central to potential concerns, as an unconditional authorisation would not prevent the potential for inappropriate information flows. As shown above, the marketing structure for Pohokura could enable some parties to set price and other terms for the bulk of uncommitted gas supplies across the industry. At least one of those parties is also a potential purchaser (Nova Gas is named in Appendix 4 of the application as a potential purchaser), and would potentially have access to joint venture information, in the absence of specific controls.

[9] Assuming the production profile in the CRA report, a price of $4/GJ, and a discount rate of 10% assessed over a ten year period.

This is a significant competition concern that might only be addressed by imposing conditions, such as on information sharing (e.g. an independent "blind" marketing structure).

In practical terms, there are precedents that may aid the Commission in this situation, namely:

- The development of the Liquigas pricing board – the Commission expressed concerns about the ability of Liquigas shareholders (who include NGC, Shell and Todd) to set wholesale LPG prices, including because shareholders were also downstream participants. Apart from longstanding governance arrangements put in place to address this issue, Liquigas has also now put in place a pricing board, with specific arrangements (such as an independent chair); and
- The previous arrangement for Kupe - where NGC became aware that the Kupe joint venturers had agreed that when one of them a had a conflict of interest they would abstain from the marketing board. At that time Fletcher Energy, in particular, had pervasive interests in the energy sector.

Conclusions

To grant any authorisation, the Commission would need to be satisfied that the claimed benefits of joint marketing, particularly in terms of expediting field development, are real. There are significant competition concerns, both in respect of potential competition between the Pohokura joint venturers to market Pohokura gas, and (more significantly still) in respect of competition between Pohokura gas and gas from other fields. NGC believes there are practical measures that may address the competition concerns and accelerate the field's development.

If granted, conditions imposed on the authorisation would likely be required to adequately address the issues raised in this submission. This is likely to require either a detailed joint marketing agreement which minimizes harm to competition, or equivalent conditions being imposed by the Commission to minimize harm to competition. The agreement/conditions should, as a minimum, prevent cross-field coordination of terms of gas sales, including price.

Signed on behalf of NGC Energy Limited

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