



SUBMISSION.

TO THE

SENATE RURAL AND REGIONAL AFFAIRS AND
TRANSPORT COMMITTEE

INQUIRY INTO AUSTRALIA'S FUTURE OIL SUPPLY
AND ALTERNATIVE TRANSPORT FUELS.

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INTRODUCTION

Murray Goulburn Co-operative Co (MGC) is a large user of Diesel fuels for both Primary production and transport purposes; we compete with other dairy exporters and with manufacturers of dairy products within importing countries. To remain competitive, we have relied on innovation, excellence and tight budgeting. MGC's recent experience with alternative fuels, LNG (Liquified Natural Gas), has been a positive innovation and offers genuine and practical alternatives to minimise MGC's reliance on imported fuels, removing some of the fuel spikes and price instability, thus giving us another option for real and practical overheads reduction.

MURRAY GOULBURN CO-OP

- Co-operative Dairy Company 100% Australian owned.
[Murray Goulburn Co-Operative Co. Ltd. Australia](#) (link to web site)
- 3000 Dairy farmer supplier shareholders.
- 3.6 billion Litre annual milk intake from farm.
- 8 Regionally based Manufacturing facilities.
- 2200 full time employees.
- MGC's export trade \$1.0Billion Dollars 2004/2005.
- 360,000 Metric Tonnes of processed dairy products exported annually from Port of Melbourne.
- 9% of World Dairy trade.
- 70% of milk intake exported as value added products sold on international market.
- The majority of export sales are made in forward sales contracts.
- 160 fleet vehicles farm to factory and finished goods, traveling approx. 32million kms P/A.

SIGNIFICANT MOTIVATION FOR INVESTING IN AND USING ALTERNATIVE FUELS

- \$80-90million Dollar annual export transport costs. (shipping)
- MGC's Fuel costs have risen by 50% in the past two years.
- Escalating BAF charges (Bunker adjustment factor)
- The prices for internationally traded Dairy products are largely set externally; increased local manufacturing costs result in reduced returns to MGC's dairy farmer owners and diminished international competitiveness.
- On farm costs of fuel related production are directly affected by fuel costs, with no ability to recover these costs from the market
- The oil future looks as though it will remain volatile and with continued high prices.
- The environmental driver. Competing in an increasing environmentally sensitive global market place.



REAL WORLD EXPERIENCE (WITH LNG AS A SUBSTITUTE FOR DIESEL)

- Murray Goulburn has done more than simply investigate alternative fuels.
- Murray Goulburn operates the largest commercial (non government owned) alternative fuels fleet in Australia.
- Murray Goulburn has substantial experience with the practical issues associated with the substitution of an alternative fuel (ie. LNG) for wholesale diesel use.
- MGC's positive experience with LNG.
- Substantial real-world economic benefits for operators.

THE ISSUES THAT NEED TO BE ADDRESSED –AN MGC PERSPECTIVE.

- Concerns for LNG certainty, availability, price and excise.
- Lacking national alternative fuels infrastructure.
- Possible legislative incentives for alternative fuels: i.e. vehicle length, weight concessions to allow depot based refueling with a longer range, until infrastructure catches up.
- Potential to develop alternative fuels industry infrastructure, equipment and products to export with LNG to satisfy National requirements and with export potential, rather than buying this technology from offshore.

CONCLUSION

- LNG offers significant potential benefits to commercial vehicle operators both light and heavy.
- At this stage, the industry is a little vulnerable and there appears to be an opportunity for the Government to provide assistance with the establishment of this industry in its infancy.
- If fully realised, the development of alternative fuels such as LNG create significant potential for Australia to reduce its increasing exposure to world oil supply problems, while also developing an industry with significant export potential.
- Environmental benefits with reductions in particulate and CO2 emissions.



CONTENT

WHO IS MURRAY GOULBURN CO-OPERATIVE COMPANY

Co-Operative Dairy Company 100% Australian Owned

Murray Goulburn Co-operative was formed in 1950 and has grown to become the largest processor of milk in Australia and the nation's largest exporter of processed food. With eight plants located throughout Victoria, Murray Goulburn processes more than 35% of the nation's milk supply into quality products which are sold on both domestic and export markets.

3000 Supplier shareholders

MGC's Co-operative Company is owned by MGC's Dairy farmer suppliers based throughout Victoria, Southern New South Wales and South East South Australia.

3.6 billion Litre annual milk intake from farm

MGC's expected milk intake for the FY 2005/2006 is expected to reach 3.6 billion litres

8 Regional/Rural based Manufacturing facilities.

We have manufacturing sites at:

Cobram.

Producing;	
Cheese.	Export
Retail Cheese	Domestic
Whey Powder	Export
Whey Protein Concentrate	Export
Whey Protein Isolates	Export
Lactose	Export

Kiewa.

Producing;	
Cheese	Export
Retail Milk/Cream	Domestic

Koroit.

Producing	
Full Cream Milk powder	Export
Fat Filled Milk powder	Export
Skim Milk Powder	Export
Anhydrous milk fat	Export
Butter	Export
Buttermilk powder	Export

Leitchville.

Producing	
Cheese.	Export and Domestic



Leongatha.

Producing	
Butter	Export
Retail Spreads and creams	Domestic
UHT Milk products	Export
Skim Milk Powder	Export
Casein/Caseinates	Export
Milk protein Concentrates	Export
Whey Protein Concentrates	Export
Whey Powder	Export
Lactoferrin	Export

Maffra.

Producing	
Full Cream Milk Powder	Export
Skim milk Powder	Export
Buttermilk Powder	Export
Anhydrous Milk Fat	Export
Butter.	Export

Murray Goulburn Nutritionals.

Producing	
Infant Formulas	Export
Specialty Food ingredients.	Export

Rochester.

Producing	
Cheese	Export
Anhydrous Milk Fat	Export
Skim Milk Powder	Export
Full Cream Milk Powder	Export
Whey Powder	Export
Whey Protein Concentrates	Export
Lactose.	Export

2200 full time employees.

Each of MGC's employees has a financial input into each of their base regions with significant financial/economic value to the districts. The regions where MGC's facilities are based are very dependant on a viable agricultural/dairy industry to provide employment and continued growth. Each of the regions where MGC's manufacturing facilities are based has benefited from stable long term employment, this assist in attracting service industries, maintaining education facilities and health and allied services.

MGC's export trade \$1.0Billion 2004/2005

Murray Goulburn export sales are valued at Aud\$1.0 billion P/A



360,000MT of processed dairy products exported annually from Melbourne Port

MGC exports to over 100 countries around the globe and are the largest food exporter from Australia, shipping 25,000 containers annually from Melbourne.

9% of World Dairy trade.

MGC's exports represent 9% of the worlds traded dairy based commodities.

70% of milk intake exported as value added products sold on international market.

MGC exports the majority of its annual production, with the exclusion of some of the domestic short shelf life products, as per the list above.

Export sales in forward sales contracts.

Exports sales are negotiated in advance. Sudden fuel price movements are not recoverable from the market

160 fleet vehicles farm to factory and finished goods

MGC operates 140 farm to factory pickup vehicles, collecting fresh milk from 3,000 suppliers, and 20 finished goods/general carrying vehicles, the fleet travels approx. 32,000,000 kms per year.

MOTIVATION

\$80-90million Dollar annual export transport/shipping costs

Freight costs to have MGC's product landed at MGC's customers premises have escalated alongside fuel price rises. As we are competing with all Dairy producers, MGC's returns diminish with freight rises.

MGC's fuel costs have risen by 50% in the past two years

MGC's transports fuel costs have increased by 50% over the past two years Based on diesel purchased for Farm to factory and finished goods transport costs alone. As well as this MGC farmer suppliers will on average consume between 7,000 & 10,000litres P/A, with no ability to recover these costs from the market.

Escalating BAF charges

Bunker adjustment factors have pushed the price of container shipping to new highs, putting southern hemisphere exporting companies further behind.

Internationally traded Dairy product external price setting, increased local manufacturing costs are absorbed by farmer suppliers in reduced returns on farm.

The diesel fuel cost component for MGC's primary producers and transport operation is absorbed, because we are competing globally. The separation by distance from MGC's export markets is a burden borne by MGC's suppliers in reduced returns. MGC's dairy commodities



compete with producers from within the importing countries as well as with other exporting nations so MGC's aim is to land the product at competitive prices, fuel costs impact heavily on export profitability. Transport cost cannot be recovered through the market so is therefore paid for by the primary producer.

On farm costs of fuel related production directly affected by fuel costs no ability to recover from the market.

An average supplier farmer will have experienced a significant increase in on farm fuel costs over the past 18 months, on top of drought years. This has led to a reduction in the numbers of dairy farmers, and a loss in milk production. As earlier stated, there is no opportunity for passing through these costs into product so the burden is borne by the Farmer supplier.

What does the oil's future look like?

MGC makes no claim to special knowledge of the oil future, but a prudent Company takes action to minimise/mitigate risk to ensure the least risk to continued operation. The assumption MGC makes is that Australia will continue to be a net importer of fuel and without significant discoveries that are viable both in practice and economy, then the import ratio is likely to increase. Given that the developing world is on an exponential growth pattern, then it is likely that will be where the future oil sales will go. The assumption that we may make is that the price of fuel is likely to remain high for the medium to long term. It is because of MGC's unrelenting drive on cost reduction and its environmental ethic, the Federal government AFCP grants scheme and the present availability of Natural gas/LNG that we have adopted the alternative fuels approach. The adoption of viable and commercially sustainable alternative fuels is essential.

The Environmental Driver

Murray Goulburn exports to more than 100 countries, a significant number of those countries are acutely interested in the environmental performance of their suppliers. MGC strives for continuous reduction in its environmental footprint. We will continue this process. MGC's emissions from transport, is one of the areas where we can and are making a difference. MGC invests heavily in environmentally sustainable production; our involvement with LNG is an example of farmer investment being a catalyst in altering the complexion of heavy transport fuel usage in Australia. LNG offers a real and practical opportunity for this.

REAL WORLD EXPERIENCE.

MGC has done more than simply investigate Alternative Fuels.

MGC has taken up the challenge and opportunity offered by LNG, to convert 33 of MGC's 160 farm to factory milk collection and finished goods heavy transport prime movers. 21 of these conversions attracted 50% funding from the Federal Government Australian greenhouse office Alternative Fuels grant scheme, the remaining 12 were fully funded by MGC. MGC intends to continue the conversion programme.



Largest commercial (Non Government owned) alternative fuels fleet in Australia

With 33 vehicles committed to Dual fuel (LNG/Diesel) MGC's has become the largest privately owned and commercially operated alternative fuel fleet in Australia.

Substantial experience with the practical issues associated with Alternative fuel substitution.

MGC has been converting and operating the dual fuelled vehicles over an extended period, and have been at the sharp end of a growing understanding of the practical realities associated with taking up new fuel/technology. It is true to say that there have been growing pains across all the segments of this technology including; Approvals (local Gov't, EPA, Dangerous goods, emergency services, Occupational health and Safety, Education, Fuel access, Fuel delivery, Storage, Engine conversion, Commissioning, Training, Refueling, Fuel standards and operational issues, each of these problems encountered has been worked through and in the large part resolved.

MGC's positive experience with LNG.

Over many years MGC has sought ways to improve efficiencies within MGC's transport department, larger tankers, mass management, B Double capacity, milk pumping speed to reduce time spent at farm; this has meant a steady reduction in the number of vehicles on road. MGC has also been looking at alternatives to Fossil fuel diesels such as LPG, CNG, Biodiesel and Ethanol. Natural gas was deemed to be the most likely contender and so trials were performed with CNG. It soon became clear that CNG, whilst a useable fuel had some downsides, refueling time and range amongst them, to carry enough fuel for the average journey meant carrying so much fuel that the gross weight was affected. Alternative fuels languished for a period until the LNG option was proposed. We had 10 existing vehicles of the right type (Caterpillar C-12's) that were able to be converted to run as dual fuel vehicles, and most importantly, an enthusiastic and innovative Board and senior executive, willing to adopt new technology. The Australian Greenhouse Office was offering 50% funding for a significant trial and MGC was the recipient of Federal government grant monies to assist in the trialing of this alternative fuel source in MGC's transport fleet. MGC converted 10 of these vehicles with the funding and has been satisfied with the outcomes from the trials. Since that first tranche of conversions, we have applied for and received a further grant for another trial using a different engine type (caterpillar C-15) and at the time of writing, are converting a further 11 trucks. We have been so pleased with the results that we purchased a further 12 Caterpillar C-12's. The trial results are yet to be published but there are significant savings, both environmental and economic, to be made using LNG in heavy freight.

Substantial Real world economic benefits for operators.

MGC's experience thus far, shows that there are real and demonstrable savings to be made in a heavy transport fleet operating as MGC does. The savings vary with operational conditions ie. route, load, idle time, etc, but MGC is consistently achieving above 70% substitution of gas for diesel averaged across the fleet, and as high as 85%+.



THE ISSUES. (MGC'S PERSPECTIVE)

Concerns for LNG certainty, both price and excise.

As MGC's reliance on LNG grows, we are exposed to a significant risk of changing availability and price for this fuel, and the possibility of taxation change. As an LNG user MGC would be concerned that the existing Gov't revenue arrangements are stable and long term to give certainty to the industry. There is potential further risk inherent in the limited operational knowledge, suitable vehicles, local expertise as well as the reliance on imported hardware. At this time, LNG production on the Eastern seaboard is confined to one operator.

National Infrastructure shortcomings

Because MG's operation is depot based, in that the trucks operate largely out and back to the same depot, this allows efficient fuel carrying capacity and refueling facilities and fits well with the distances traveled to collect milk from farm. IF however, we were a general freight carrier not operating specific routes, we would be unable to operate freely through any of the normal and highly used transport routes without;

- a. extensive infrastructure rollout most particularly at strategic locations up and down the Eastern and across the Southern Seaboard.
- b. Possible transport law changes targeted at alternative fuels users that allow for longer chassis lengths and higher gross weights for LNG carrying capacity to permit LNG users to operate as "normal" diesel fueled vehicles.

Legislative and social incentives

Possible legislative incentives for alternative fuels: vehicle length, weight concessions to allow depot based refueling with a longer range, until infrastructure catches up. Continued supportive funding of conversions, technology development, education and training support, Australia wide fuels standards to embrace LNG. Incentives to capture the environmental, economic and social/community benefits that come, not just with regionally based viable agricultural/export industries, but for a significant part of Australian transport industry.

Industry Potential.

There is industry potential to develop aligned, value added infrastructure, equipment and products and expertise to export with the LNG to offshore customers, rather than buying back in from overseas.



CONCLUSION.

LNG offers significant potential benefits to commercial vehicle operators both light and heavy.

The benefits to transport operators are real and many, and include;

Economic, reduced diesel costs and operational cost per kilometer, oil change frequency reduced, fuel filter changes reduced, greater export sales and being able to compete at a sustainable level

Environmental, reduced particulate emission, reduced noise, reduced greenhouse gas emissions.

Social, improved business viability means greater job security and the flow on effects throughout the wider community are potentially very great.

Industry Vulnerability.

At this stage, the industry is a little vulnerable and there appears to be an opportunity for the Government to provide assistance with the establishment of and early support of this industry in its infancy, in particular ensuring a standardised approach to all of the governmental elements such as fuel standards, emergency services, environmental laws and planning that applies across the whole of Australia.

The ongoing support by the Federal Government, of industry trials should remain as a cornerstone into the foreseeable future, with particular encouragement for new entrants into each of the elements of, fuel production and delivery, infrastructure development, engine development, training (specific to LNG) and manufacturing industry.

Reducing Australia's Exposure to Oil Shocks.

If fully realised, the development of alternative fuels such as LNG create significant potential for Australia to reduce its increasing exposure to world oil supply problems, while also developing a new industry with significant export potential. If 20% of the heavy vehicle fleet (~8000 vehicles approx.) were to reduce their diesel fuel (fossil fuel derived) consumption by 70-85%, the savings to the Nation and the impact on balance of trade figures would be very significant. MGC has proven that LNG is a viable fuel for heavy transport. Some elements of MGC's operation are unique, but with care and attention and co-operation across all levels of the fuel and transport industry, State and Federal Governments, alternative fuels can and should occupy a significant, worthwhile and viable part of the whole.

Environmental Benefits

Reductions in fuel particulates and CO² emissions, engine noise reduction, extended engine oil life, extended fuel filter life, all factors that effectively reduce waste and environmental cost. These are all elements that will have a beneficial effect on how the world sees us and our products.

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Murray Goulburn Co-operative Co. Limited

Dairy Regions and Processing Plants



Major Products

LEITCHVILLE

- Cheese

ROCHESTER

- Cheese
- Anhydrous Milk Fat
- Skim Milk Powder
- Full Cream Milk Powder
- Whey Powder
- Whey Protein Concentrate
- Lactose

MG NUTRITIONALS 3

- Infant Formulas
- Specialty Ingredients

COBRAM

- Cheese
- Retail Cheese
- Whey Powder
- Whey Protein Concentrate
- Whey Protein Isolate
- Lactose

KIEWA

- Cheese
- Retail Milk/Cream

MAFFRA

- Full Cream Milk Powder
- Skim Milk Powder
- Butter Milk Powder
- Anhydrous Milk Fat
- Butter

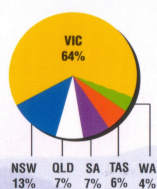
LEONGATHA

- Butter
- Retail Butter/Spreads and Creams
- UHT Products
- Skim Milk Powder
- Casein / Caseinates
- Milk Protein Concentrate
- Whey Protein Concentrate
- Whey Powder
- Lactoferrin

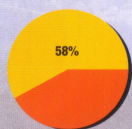
KOROIT

- Full Cream Milk Powder
- Fat Filled Milk Powder
- Skim Milk Powder
- Anhydrous Milk Fat
- Butter
- Butter Milk Powder

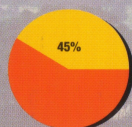
*Australian Milk
Production by State*



Murray Goulburn's Share of Victorian Milk Production



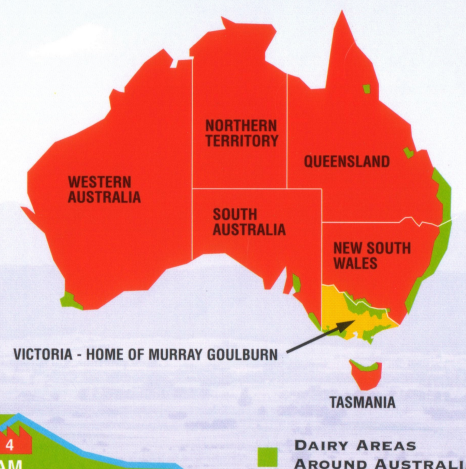
Murray Goulburn's Share of Australian Dairy Exports



Australia's Largest Exporter of Food Products

• Melbourne									
258	• Leitchville								
181	77	• Rochester							
244	215	138	• Cobram						
319	363	286	148	• Kiewa					
220	470	393	464	393	• Maffra				
132	390	313	376	451	130	• Leongatha			
281	443	366	504	600	500	413	• Kororoit		

Distance Between Processing Plants in Kilometres



VICTORIA - HOME OF MURRAY GOULBURN

DAIRY AREAS AROUND AUSTRALIA

LEITCHVILLE

ROCHESTER

COBRAM

5
KIEWA

MELBOURNE

KOROIT

7
LEONGATHA

MAFFRA

YARRAM

PROCESSING PLANTS

MG MILK COLLECTION AREAS

MURRAY RIVER

MGM 0404