



*Australian Dairy Industry Council Inc.*

21 April 2008

Professor Ross Garnaut  
Submissions  
Garnaut Climate Change Review  
Level 2 , 1 Treasury Place  
MELBOURNE VIC 3002

Dear Professor Garnaut

**Re: Submission: Australian Dairy Industry Council submission in response to  
Garnaut Climate Change Review Emissions Trading Scheme discussion paper**

On behalf of the Australian Dairy Industry Council (ADIC) I welcome this opportunity to participate in your current review of climate change.

As the national policy body of the Australian dairy industry, ADIC represents the interests of Australian dairy farm families and businesses, dairy manufacturers and traders across all states and territories.

Australian dairy producers understand that there is sufficient scientific evidence on future world climate to justify national action. As an industry we are working hard to understand the potential effects of climate change on our competitiveness and sustainability and to identify systems and technologies that may reduce our net greenhouse gas emissions.

We recognise how important it is for Australia to develop and maintain a framework that will allow local businesses and communities to adapt to these major challenges. We see your review as an important element in building this framework.

Therefore, we are pleased to provide a dairy perspective on your recently released discussion paper on a possible Emissions Trading Scheme (ETS).

We would also welcome the opportunity to discuss the issues raised in this paper with you in person and to work proactively with your group to ensure that Australian dairy farmers can equitably participate in efforts to address the climate change challenge.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Allan Burgess', with a long horizontal line underneath it.

**Allan Burgess**  
President

## **ADIC submission in response to Garnaut Climate Change Review Emissions Trading Scheme discussion paper**

### **Introduction**

The Australian dairy industry welcomes the opportunity to participate in the current national review of climate change and to provide comments on the recently released discussion paper on a possible Emissions Trading Scheme (ETS).

Climate change and associated policies on water access, greenhouse gas emissions, waste management and soil nutrition will have a major bearing on the dairy industry's future sustainability. Being closely integrated across the value chain (from pre-farm through manufacturing to export) dairy has a unique perspective on the regional and commercial impacts of climate change. Our structure means we are uniquely exposed to the impact of new policies (like an ETS) as changes that affect one point of the value chain will automatically flow through to all parts of our industry.

Your terms of reference state that, in recommending medium to long term policy options and implementation timetables, you should take account of:

- the regional, sectoral and distributional implications of climate change and policies aimed at mitigating climate change and
- the costs and benefits of taking significant action to mitigate climate change ahead of competitor nations.

The following comments focus on these two aspects with particular reference to the possible implementation of a national ETS.

### **Dairy and Emissions Trading**

Australian dairy's approach to emissions trading is shaped by its positioning in local and international markets (see Dairy facts inset).

The industry has a long and successful history of embracing change and adapting to new market and policy environments. In the area of resource management and climate change, dairy businesses actively pursue a continuous improvement strategy.

Dairy was the first industry sector to carry out a full life cycle analysis of its greenhouse emissions (2003). Our national service body *Dairy Australia* actively coordinates research at both farm and manufacturing levels aimed at identifying and implementing strategies and business system modifications that will reduce overall emissions. In recent decades, industry participants have steadily adopted new technologies to improve our environmental performance and sustainability. As such, we believe our producers are at the forefront of green house efficiency in world agriculture.

As an industry, dairy does not oppose the possible introduction of a national Emissions Trading Scheme (ETS). We support the concept of developing least cost abatement actions for man-made greenhouse gases. In principle an ETS based on a broad cap and trade could be an appropriate mechanism to achieve planned national outcomes.

The principles set out in the discussion paper to guide the design of an ETS – simplicity, credibility, integration etc. - are logical. However, implementing an ETS will have many consequences for dairy through its impact on our direct input costs (energy, electricity etc) and our manufacturing and farm infrastructures. It will also affect the complexity of business decision making and our ability to compete for markets and resources.

While the measures of greenhouse emissions are well known, the methods of determining dairy's contribution to these measures require further work. Therefore, dairy's support for any ETS is dependent on a number of additional principles. These include:

1. An ETS must not detrimentally affect the international competitiveness of Australian dairy foods and lead to unnecessary shifts of production to other regions of the world
2. Dairy businesses should be appropriately compensated for any disproportionate loss of asset values arising from implementation of an ETS
3. The costs of an ETS should be distributed fairly across the broader community (regardless of the level of coverage of different sectors)
4. An ETS should not distort the market for key inputs such as agricultural land
5. An ETS scheme must incorporate viable and robust offset mechanisms that are open to dairy producers.
6. Dairy should remain uncovered until there is much greater consensus on the accuracy and validity of systems used for measuring greenhouse emissions (particularly at farm level)
7. Before dairy is covered by any ETS, local businesses must have access to improved information and tools that will allow them to understand:
  - the impacts of climate change on markets in the short and medium term,
  - the likely interaction between emissions trading and other climate based policy initiatives (e.g. water), and
  - Options to modify business practices to adjust to new targets

This will require commitment by both government and industry to further substantial investment in research and development activities to promote the necessary knowledge and information flows.

Your discussion paper suggests that sectors like dairy should become covered sectors under an ETS “as soon as practicable”.

Questions over data verification, the impact of an ETS on competitiveness etc. suggest that there are strong grounds for dairy remaining an uncovered sector until such time as the ETS system evolves to a level where these issues have been addressed with much greater certainty.

It is important to recognise that, even if dairy remains “uncovered” our production systems are relatively energy intensive. Therefore, we will incur significant first round cost increases even if we remain uncovered and this will have a bearing on our competitiveness in world markets and in competition for key resources.

#### **Key Australian Dairy facts**

- Dairy is Australia’s primary processed food exporting industry.
- Dairy is a major regional employer with most of the farm and manufacturing operations established in regional Australia, particularly the south east.
- Dairy operates as a highly integrated industry with close interconnection between the farm, processing and export arms.
- The farm gate value of milk production in 2007/08 is around \$4 billion.
- This milk is fully converted into processed foods and ingredients generating an ex-factory value of production of over \$9 billion. This makes dairy a leading value-adding sector of Australian food production.
- Australia exports half its annual production on average in the form of value added foods and ingredients (with an annual export value of around \$3 billion).
- Australia accounts for only 2% of world dairy production, but 13% of world trade.
- World demand for dairy products at present is very strong. World prices are around double their previous long term averages. This leaves the industry well placed for profitable growth and recovery over the next decade (subject to possible constraints imposed by new regulatory and policy rules).

The following sections provide more detailed comments on specific elements of the Discussion paper with regard to the principles set out above.

### **Accurate accounting for the dairy industry**

The discussion paper notes on Page 27 that, for a sector to be covered by an ETS, there must be a reliable and accurate means of measuring and verifying its emissions. It also recognises that technological constraints make this difficult for activities within agriculture. There is a suggestion, though, in Box 3.1 that the National Carbon Accounting System (NCAS) could address this issue within a few years.

As a livestock industry we are aware of the uncertainty that exists in relation to the effectiveness and accuracy of current emissions measurement calculations particularly for our farm based sector. Our reviews suggest that the NCAS makes a number of assumptions about business practices and also fails to address measurement issues in relation to certain gases like NO<sub>2</sub>. Therefore, as it stands NCAS is not a suitable base for assessing Australian dairy farm business' emissions.

Dairy farming in Australia is incredibly diverse in nature and geographic location. Firms have farmer suppliers ranging from the northern tropics of the Atherton Tablelands, through the Murray basin into temperate southern Victoria, South Australia and Tasmania. The industry operates with a variety of feeding regimes, soil types, rainfall, temperatures and humidity. Each of these factors will affect actual emissions. Furthermore, each dairy farm business is managed differently and the complexity of different management systems must also be taken into account in future official accounting methods. For example grain feeding and fertiliser usage varies greatly across any group of dairy farm businesses. These can significantly affect the level of Greenhouse emissions per hectare or per kilogram of milk solids.

For example, a Victorian Department of Primary Industry analysis in 2007 indicated that farm level greenhouse emissions could range from 8-18 tonnes of Co<sub>2</sub>-e per tonne of milk solids produced depending on farm feed systems and location.

Given the potential impact of an ETS on future growth and profitability within the dairy industry, "rule of thumb" emissions measures are inappropriate bases for assessing obligations and performance.

The dairy industry will continue to work in partnership with key stakeholders on greenhouse gas emissions calculation methods to ensure that courses of action adopted are scientifically valid and competent to deliver expected outcomes.

But, we believe that delay in coverage of dairy is essential until more appropriate and reliable methods of accounting can be developed that take account of the complex interaction between production systems and emissions.

### **Trade Exposure**

The Discussion paper recognises that some sectors of agriculture are trade exposed. It suggests that, rather than excluding these sectors from an ETS, they should be covered but treated in a manner similar to other trade-exposed emissions-intensive industries (TEEI).

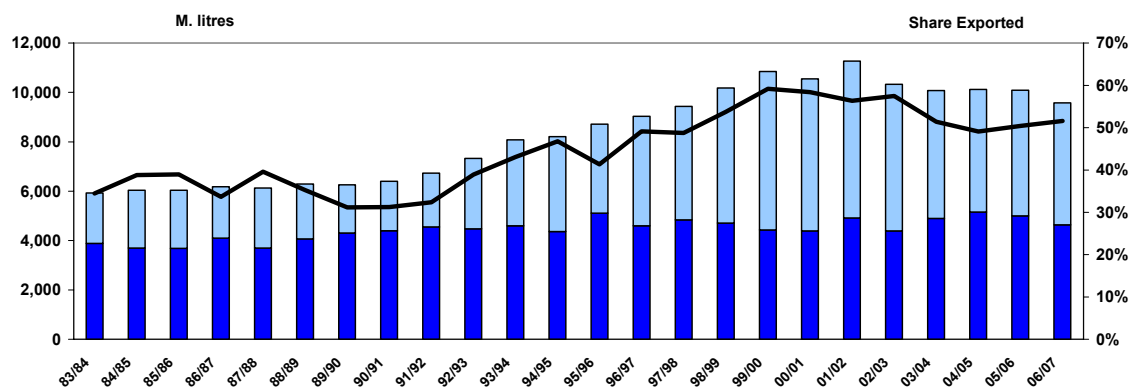
By any standard Australian dairy is highly trade exposed.

Australian dairy is well known in world markets as a low cost (but not lowest cost), producer that efficiently balances pasture, water and feed systems to maintain its competitive position.

In the past decade, export sales have averaged over 50% of local production on a milk solids basis (Figure 1).

The 2005 *Balancing Act* report listed the Dairy Products sector 23<sup>rd</sup> out of 135 Australian industry sectors in terms of its export intensity.

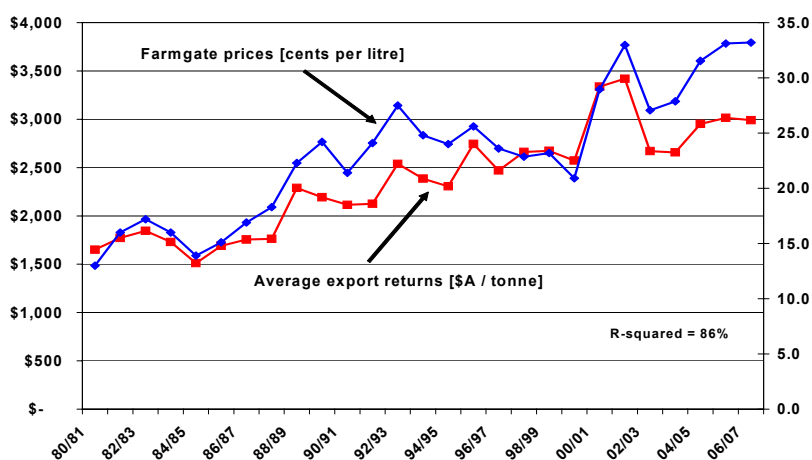
**Figure 1: Australia Milk Utilisation 1983 - 2007**



While Australia accounts for around 13% of world dairy trade it is essentially a price taker in world markets. This is an important issue in the context of ETS schemes and their potential impact on Australia’s international competitiveness.

The absence of trade or tariff barriers to dairy imports (including free trade and harmonisation of trade rules with New Zealand) essentially links local market prices to world market movements. As a result, industry returns at both manufacturing and farm gate level are closely linked to available world market prices (Figure 2).

**Figure 2: Comparison of Australian Farm Gate and Export market returns**



While sectoral data on emissions is by no means agreed, it should be noted that the *Balancing Act* report mentioned above also listed dairy farming 13<sup>th</sup> of 135 sectors in terms of the relative intensity of greenhouse gas emissions per dollar of sectoral revenue. Dairy processing was also above the national average in this regard.

The above points indicate that **dairy must be classed as a TEEII in any final ETS.**

**Avoiding Distortions for TEEIIs**

Many discussions on an ETS assume that the costs of carbon entitlements can be passed through to final consumers. This may be true for largely non-traded sectors, but the balance is more complicated for price taker trade-exposed sectors like dairy.

For an average dairy farm producing 1.1 million litres of milk, the potential annual cost of securing required carbon rights under an ETS could range between \$16,000 (at a low price of \$20 per tonne) up to \$27,000 (at a price of \$38/t which is in line with current EU market pricing).

These figures are significant in terms of dairy farm viability. They represent an extra cost of production of between 3-5% of farm gate revenue. In practice the higher number exceeds ABARE's measured average dairy farm business profit in 3 of the last 4 years (and likely 4 out of 4 in the Murray basin).

**Most importantly** there is **no** automatic mechanism for farmers to pass the extra cost through to local consumers. We are not in a cost plus world in terms of the price of our key output - milk. When input costs go up farmers cannot automatically raise the price of milk (as shown with recent rises in fertiliser, feed costs etc). So farmers may not be able to recover the cost from consumers. This is particularly true for farmers supplying export firms in south east Australia.

Australia's main competitors in international dairy markets in terms of size are the European Union, New Zealand, USA and Latin American producers such as Brazil, Argentina and Uruguay. For a limited product range such as milk powder developing countries such as India and the Ukraine are also emerging competitors.

Of these major competitors only one, New Zealand, currently faces the prospect of direct controls and costs on emissions. This reflects New Zealand's unique position in that agriculture accounts for the majority of New Zealand's greenhouse gas emissions under its Kyoto protocol targets. Even New Zealand is considering significant elements of free allocation to farmers in the early part of its scheme.

In a competitive market Australian dairy firms' ability to pass on the costs imposed under an Australian ETS to international customers is greatly constrained. This would have direct negative effect on export earnings. Given the strong regional multipliers in place with dairying, the associated social and economic consequences for rural and regional Australia are significant.

In light of this we welcome the discussion paper's comments that there are environmental and economic reasons for establishing transitional arrangements for trade exposed industries that are at risk.

We believe that dairy falls clearly into this category. Because dairy is internationally traded its prices and returns can be quite volatile. We are already exposed to climate change reform through potential cost increases in key inputs such as fertiliser, water and electricity across the value chain,

Failure to include dairy in any transitional compensatory arrangements on the commencement of an ETS would damage our competitiveness and place a disproportionate burden on our sector and the regional communities in which we operate.

Globally there is a real risk, that without adequate compensation for dairy, an ETS will encourage unnecessary shifts in production away from energy efficient countries like Australia to other regions to the detriment of the Kyoto objectives.

Your paper proposes a formula for assessing the level of this compensation. While the approach of making assessments based on calculated "world prices" with and without carbon schemes seems reasonable, technical issues remain as to how easy such a calculation would be. Also the provision to apply an arbitrary factor to account for expected annual improvements in energy efficiency needs further review. It presupposes a steady rather than step path of energy improvement which may not be the case in actual industry experience.

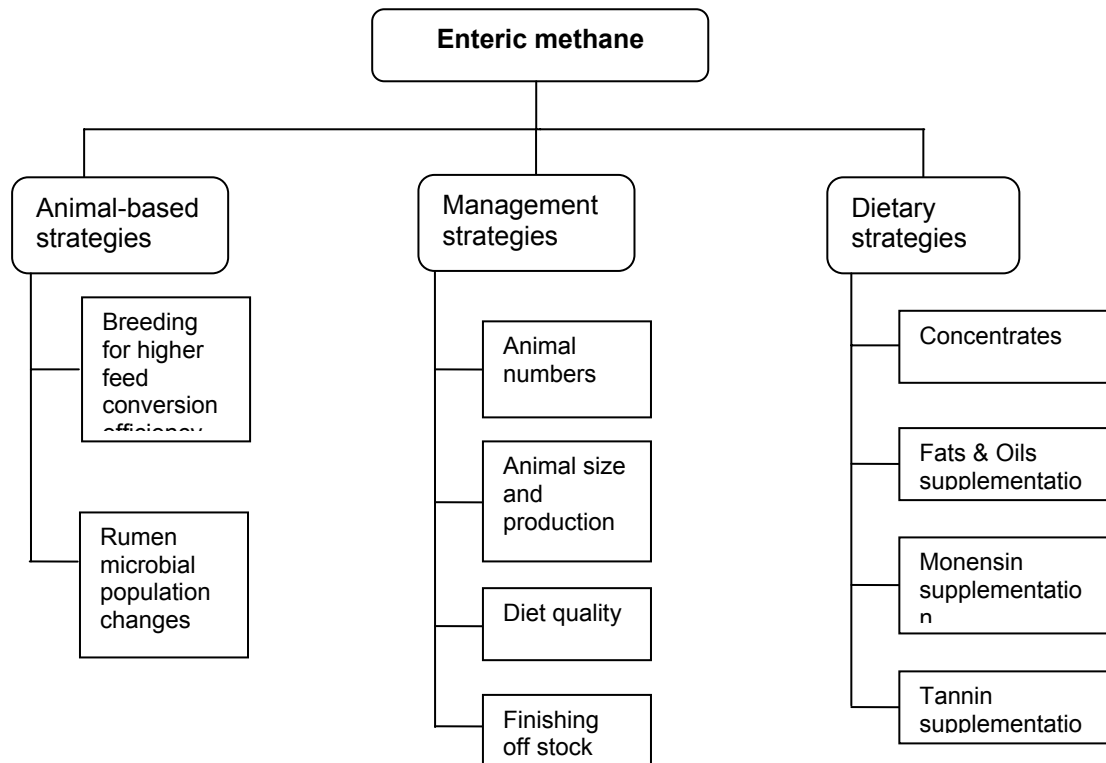
### **Viable Abatement options**

Abatement opportunities for agriculture at this time are either under-developed or not cost-effective. For example methane capture is technically available today but is by no means cost-effective in most cases. On the other hand soil carbon sequestration and methane reduction from livestock are not commercially proven.

It is conceivable that the livestock industries like dairy and beef could be fully covered in a cap and trade scheme and have no "approved" abatement measures other than reduced stocking rates and tree-planting. Dairy farmers could then be forced to reduce productivity or purchase offsets in the emissions market. Under this scenario the ETS would be acting like a carbon tax rather than an emissions trading scheme.

Dairy has currently identified a range of possible greenhouse abatement strategies (Figure 3 identifies these at a high level for enteric methane reduction). These strategies are multi-disciplinary and operate at a range of points within farm business systems.

**Figure 3: Dairy Options For Reducing Enteric Methane**



Current research suggests that it may take some years to prove the scientific validity of emissions abatement options for livestock industries that can meet the five *Accredited Offsets Principles* (additional, occurred, permanent, measurable, verifiable). The dairy industry is very keen to gain an improved understanding of how these five principles may be tested and applied in relation to any formal ETS accounting methodology.

The industry will continue to invest considerable funds in developing this knowledge. It will be crucial in ensuring that any final ETS provides signals that effectively support lower emission business models and practices going forward. If the dairy industry is to continue to improve and grow sustainably into the future then government support into further research, development and extension in the area of emissions and climate change is required.

However, while real abatement opportunities remain a long way off for dairy farmers, the sector should remain outside direct ETS coverage until further science and advice is available.

### Point of Obligation

The paper notes there are issues for determining the appropriate point of obligation. It also notes that New Zealand has proposed the possible use of down stream points of obligations for sectors like dairy.

On one level the use of down stream points of obligations may appear logical and cost effective. But in dairy it raises a range of other issues including:

- how such arrangements would take account of differences in emissions under different farm systems (as highlighted above)

- how to present signals to individual farmers to make appropriate adjustments to their farm systems, and
- How to balance obligations over time between new entrants and exiting farmers particularly if the scheme allows for banking and borrowing of entitlements.

These issues suggest further discussion with industry is vital before any final decisions are made.

The link between point of obligation and the possible parallel accreditation of best management practice schemes for different sectors also needs to be reviewed in more detail.

### **Banking and Borrowing**

Allowing entitlements to be stored for later use or drawn forward to meet current obligations will logically meet the discussion paper's objective of improving the flexibility of an ETS. However, it will add complexities at farm and company levels in terms of understanding and accounting for entitlement use. This could affect decision making in relation to investments in dairy and in business valuations. It suggests further consideration of options is warranted.

### **Rate of Permit release**

Given the potential cost to dairy farm business of securing entitlements if dairy were covered by an ETS, the timing of release is an issue that warrants further consideration. In the case of dairy, payment for entitlements may have to occur well in advance of actual production, sale and payment for finished product. Therefore, there are potentially real business costs if allocations occur infrequently. A similar situation would apply even if the point of obligation is shifted to manufacturers.

### **Competition for Resources**

Compared to other sectors of Australian agriculture and manufacturing the dairy sector is a relatively high emitter of greenhouse gases (both in absolute terms and levels of relative intensity). Dairy is a substantial user of electricity and energy and purchased water at both farm and factory level. Therefore the direction of national policy in these areas can significantly affect the economic viability of dairy not only at farm level, but also as a major regional manufacturer and processor of finished food products and ingredients.

As noted above current abatement opportunities for agriculture remain under-developed or not cost-effective, with tree planting the major "approved" abatement measure.

Given the central role of land in the dairy value chain, the industry believes that the value of agricultural land should reflect actual productive returns. Depending on the design of the scheme and abatement opportunities, an ETS could lead to land-use change, particularly towards plantations for offsets. The dairy industry remains very wary of the potential for an ETS to distort the links between land pricing, energy credit demand and returns from production. Not only can a poorly designed scheme lead to a distortion in land use well beyond that justified, but it can create unintended economic, social and environmental shifts at a regional level.

For this reason the ADIC supports rules on offsets within the ETS design in line with those put forward by the NFF submission to the Prime Minister's Emissions Task Group in 2007.

### **Concluding Remarks.**

The dairy industry understands that Australia has a useful, if modest, role to play in influencing international climate change policy and reform. As an industry, we stand ready to support further analysis and discussion on the policy options open to Australia to meet its international obligations.

We are committed to improving our understanding of greenhouse emissions and the viability of different abatement strategies.

However, dairy operates in a very dynamic economic, social and environmental system. Inevitably, when one part of this system is changed other parts will be affected.

As a trade exposed industry we see clear risks associated with the development of an ETS if it does not properly reflect Australia's position in the global economy or if it is based on inadequate systems for verifying emission performance.

The impacts of higher energy and fuel costs will be felt by all dairy businesses throughout the value chain. But, as an integrated, export exposed industry we face additional risks. The design of the ETS, therefore, must provide a significant degree of flexibility for sectors such as dairy if it is to minimise unnecessary volatility, uncertainty and dislocation in our key production regions.

Our future ability to compete for, and access, key resources will not be determined solely by the rules of an ETS. The interaction of an ETS with other policy initiatives (such as water arrangements, mandated renewable energy targets) will be equally important to the final outcome. Considerable additional work is necessary in this area before a realistic assessment can be made of the final impacts of an ETS on rural markets, environmental systems and rural communities.

As an industry we look forward to engaging further with the Garnaut Climate Change Review on the structure and design of an ETS.