TO: Minister Combet, DCCEE, DIISRTE

Re: Clean Technology Investment Program

From: David Costelloe, CEO, Refrigerated Warehouse and Transport Association
Tim Edwards, President, Australian Refrigeration Association

Dear Minister Combet,

This is to ask that DIISTRE / AusIndustry review the eligible categories under the Clean Technology Investment program (CTI). CTI is currently restricted to manufacturers and excludes cold storage operators despite the fact that cold storage is a vital link in the manufacture and distribution of temperature sensitive goods[1]. Our recommendation, that cold storage be included, is based on the following considerations:

1. Significant need and potential for increased energy efficiency and reduced direct GHG emissions (refrigerant leakage) in a large and important commercial sector.

2. Significant opportunity to invest in known sources of energy efficiency and reduce direct GHG emissions (refrigerants), enabling the suppliers of these solutions to realise economies of scale that will serve the entire refrigeration industry.

3. Cost effectiveness in so far as the proposed investments will generate low cost sources of energy efficiency and GHG emissions reduction and ongoing cost savings that will flow through to consumers.

4. The inextricable relationship between manufacturers and their cold chain suppliers; cold store operators. Many are trade exposed in so far as they serve export markets.

5. Risk avoidance in so far as the SGG levy may force otherwise viable businesses to close with the associated political pressure.

6. Fairness in so far as the Refrigeration and Air Conditioning industry will generate far greater funding under the SGG levy than is being spent back in the industry.

Context

The RWTA and ARA[2] have collaborated in this submission because both represent organisations that aim to achieve the objectives of Carbon Pricing, the SGG Levy and the government's energy efficiency initiatives. All three policies come together in the cold store industry because the industry is responsible for a high degree of energy consumption and GHG emissions. All three policies can be better achieved by including the cold store industry in the Clean Technology Investment programs.

Other peak bodies concerned with the supply and distribution of temperature sensitive goods hold the same views. We work closely with organisations like the Grocery Retailers Association, the Australian Food and Grocery Council and the Meat and Livestock Australia who we believe will support the recommendations provided in this submission.

The cold store industry serves a vital function in the distribution of temperature-controlled goods; primarily groceries and pharmaceutical, but also the exports of secondary agricultural products like frozen and chilled meat, dairy products, seafood, fruits and vegetables. For all intents and purposes cold stores are an extension of the operations of food and pharmaceutical manufactures that serve the critical purpose of temperature controlled storage and distribution. Before making a decision on this matter the views of food and pharmaceutical manufacturers and peak bodies should be incorporated.

The cold store industry is comprised of over 35,000 individual operations, the vast majority of which are small and middle-sized businesses, many of whom are financially threatened by the SGG levy and increasing energy costs. The nature of their refrigeration systems is that they are subject to a high degree of refrigerant gas leakage. The SGG levy, in association with increasing electricity prices, will cause these operations to face very

[2] RWTA / ARA description provided in the appendix

high costs so long as they remain users of SGG based refrigeration technology and fail to invest in energy efficient refrigeration.

Prior to increasing energy prices and the SGG levy the cold store industry had not seen the need to invest in energy efficiency and SGG emissions reduction. The result has been aging and poor design in refrigeration systems that need now to be upgraded. Poor refrigeration design and investment has food safety and shelf life implications. Poor refrigeration equipment design almost invariably leads to high energy consumption. Close cooperation is required between the end users and competent suppliers of custom designed and built refrigeration systems and equipment delivering the best possible results in terms of yield, food safety, shelf life and energy efficiency.

The SGG levy represents a major source of cost to the cold store industry because most of the small and middle-sized cold stores use SGG refrigerant-based technologies. In the short term SGG leakage mitigation investments may be warranted as the lowest cost option. The best way to reduce refrigeration cost is to convert to low GWP refrigerants and/or invest in energy efficient refrigeration.

To many practitioners the art of providing refrigeration is a technical problem. However, to many end users, applied refrigeration is part of a production process. For example, in the livestock industry poor refrigeration can lead to high weight losses when chilling hot carcasses prior to de-boning. This directly affects yield resulting in reduced quantities of saleable boneless meat from the many abattoirs in Australia.

Similarly, dairy, vegetables, fruits and flowers all last longer with high humidity storage. Grapes for instance are particularly sensitive. The slightest amount of weight loss renders grapes virtually unsaleable. Generally the producers of refrigerated products are aware of these issues, but do not have the technical ability to achieve conditions conducive to the high yield production of safe and or appealing foodstuffs. The CTI program has the potential to demonstrate and lead critical improvements in cold storage quality, efficiency and effectiveness.

Cold Storage Operations

There is a high volume of cold store operations in Australia. In total there were 32,000 cold stores in 2007[3], probably in excess of 35,000 today. Among those listed below by size, please note:

1. The majority are small and medium sized – 82%. Most of these are independent operators. These operators, perhaps 29,000 in total today, are almost entirely users of SGG refrigerants and therefore exposed to the SGG levy and increasing energy prices.

2. Only farm operators qualify under the CTI program, (29% of the total).

3. About 75% Major Cold Store and Warehouse operations use energy efficient, zero GWP, ammonia based refrigeration systems, whilst all others are SGG refrigerant-based operations. The large supermarket chains like Woolworths and Coles are rapidly converting to low GWP operations – largely ammonia and CO_2 systems. It is the many smaller, independent operators that need assistance.

Cold Store Size	Farm	Catering	Shop	Supermarket	Distribution	Total
Mini	3,744	3,120	4,368	0	1,248	12,480
Small	3,136	1,344	2,240	1,344	896	8,960
Medium	960	480	1,440	1,440	480	4,800
Large	800	160	320	1,280	640	3,200
Warehouse	576	0	96	768	480	1,920
Major Cold Storage	64	0	0	176	154	640
	0			176	70	
Totals	9,280	5,104	8,464	5,184	3,968	32,000

Source: ODS and SGGs in Australia, A study of end uses, emissions and opportunities for reclamation by Energy Strategies for the Department of Environment, Water, Heritage and the Arts 2007

[3] Energy Strategies report to DSEWPaC on the use of SGG refrigerants, 2007

The Impact of the SGG Levy

The SGG levy has come into force at the same time as significant electricity price increases. As a result cold store operators are looking to reduce their energy consumption as well as reduce their exposure to the SGG levy. The vast majority of the smaller cold store operators are vulnerable to the SGG levy because their refrigeration systems leak SGG refrigerants leading to the need to recharge and afford the high cost of the levy.

The SGG levy is having a greater impact on the large number of smaller cold store operators. The SGG levy will have a number of fundamental impacts:

1. Create a major risk for refrigeration operations that lose their charge due to a catastrophic leak because the cost of a full recharge can be very expensive; in excess of the cash flow capability of many operators.

2. Will encourage cold store operators to make investments to reduce leakage of SGG based technologies.

3. Create demand for conversion to low GWP refrigerants in association with the phase out of ozone depleting refrigerants (HCFCs).

The RAC industry will generate in the order of $200 M in SGG levy expenditure PA for the next few years however cold store operators cannot afford to do so in perpetuity. They are not able to apply for funding under CTI. Inevitably only a proportion of these operators will apply for CTI funding if permitted. However those that do will perform a vital demonstration function.

Conversion to Low GWP Refrigeration Systems

There are two ways for cold store operators to reduce their exposure to the SGG levy:

1. They can modify and maintain their refrigeration systems so as to minimise SGG refrigerant leakage.

2. They can convert to low GWP refrigerant-based technologies.

Both solutions require capital investment but both solutions will reduce the impact of the levy and reduce GHG emissions.

Investments in energy efficiency or conversion to low GWP refrigeration systems are significant investments. Many cold store operators are willing to consider investments that will reduce their GHG emissions but they need assistance similar to that offered under the Clean Technology Investment program. They need to convert to refrigeration systems that are not subject to the levy and are energy efficient.

The Benefits to Conversion and Leakage Reduction

The SGG levy has the potential to cause the entire Refrigeration and Air Conditioning end user sector to reduce emissions by at least 50% over the next fifteen years. However there is a need to kick start transition by providing funding to the leaders in transition.

The benefits to Australia include:

1. Reduced GHG emissions by way of energy efficiency resulting in reduced indirect emissions, and reduced SGG leakage resulting in reduced direct emissions.

2. A more competitive cold supply chain that will reduce cold store operating costs. These cost savings will ultimately be passed through to the consumer and to the export trade because the industry is highly competitive.

3. Create critical mass in the demand and use of low GWP technology. The current low GWP refrigeration systems are more expensive than SGG based systems in capital terms. They are provided by smaller suppliers with lower economies of scale. Increased demand will reduce their cost.

4. A cost effective method for reducing GHG emissions similar in efficiency to the CTI program that has already proven cost effective and attractive for manufacturers.

5. The result of conversion to low GWP based refrigeration technologies will be to stimulate demand for refrigeration industry products and employment. It is likely that the majority of owners and operators of low GWP based technologies will generate increased demand for staff skilled in their use with the associated training requirement.

The Risks of Not Providing Funding

Cold store operators are a vital link in the cold supply chain. They exist in virtually every community and they serve a function that is vital to every community. The SGG levy has come as a shock to the industry. As a result they are only now learning that they need to make the investment required to reduce leakage or convert to low GWP based technologies.

We are aware already of a number of cold store operators that are at risk of ceasing operations or experiencing an extended suspension of operations due to the SGG levy.

The solution is identical to the manufacturing industry. They are willing to consider the alternatives but need assistance.

Why cold stores should be eligible to participate in Clean Technology Funding programs

The cold storage industry should participate in the CTI programs because:

- Cold stores are a vital part of the food and pharmaceutical supply chain and exports of frozen and chilled food products.
- Cold stores are the last step in food and pharmaceutical manufacture and exports of frozen and chilled food products.
- Non-domestic refrigeration uses 4% of Australia's total electricity production.
- Large reductions in energy use, up to 50%, are possible in temperature controlled warehouses.
- Large reductions in Australia's greenhouse gas emissions can be made by encouraging more efficient energy use in the industry.
- Industry must be incentivised to reduce energy consumption to lower the operating cost of retrofitting expensive new technologies
- The cold storage industry works together on energy efficiency through RWTA and the results of energy efficiency initiatives are shared for the benefit of all members through seminars, conferences and on the RWTA website.

Recommendation

The RWTA and ARA recommend that the CTI program be adjusted to incorporate the cold storage industry.

Subject to the uptake of the CTI program this may or may not require incremental funding. We are not aware of any adjustments to the criteria for acceptance required to incorporate cold storage investments.

For further consideration please contact David Costelloe of the RWTA or Tim Edwards of the ARA

Yours truly,

David Costelloe

Tim Edwards

Appendix

The **Refrigerated Warehouse and Transport Association of Australia Limited** (RWTA) is the voice of Australia's third party temperature-controlled warehouses, refrigerated transport companies and food manufacturers.

Our members are responsible for the freezing, storage and transportation of a wide variety of fresh and processed foodstuffs, including fruit and vegetables, meat, dairy and seafood, for the domestic and export markets.

The RWTA has over 200 members Australia-wide, employing thousands of employees, who play a critical role in the Australian Cold Chain in providing storage and movement of food from the source right through to the food retailer and consumer.

As the peak body for the cold storage and refrigerated transport industry in Australia, our members provide vital support for each food manufacturing sector listed on page 18 of the discussion paper, by ensuring all manufactured food is safely and reliably delivered along the chain into the retail end, at the required controlled temperature.

Objectives of the Australian Refrigeration Association (ARA)

The purpose of the organisation is to advance the science and practice of refrigeration, in the national interest, in all of its applications, in the development of its methods and technology, and in its uses in the community by:

a. Providing services that support all participants in the industry and users of refrigeration and air conditioning equipment.

b. Encouraging research and innovation in all matters relating to the science and practice of refrigeration and air conditioning.

c. Promoting a safe and sustainable approach to all aspects of refrigeration and air conditioning system design and operation.

d. Publishing and distributing documents and standards that support the refrigeration and air conditioning industry and its uses by the community.

e. Promoting education in the science and practice of refrigeration.

f. Promoting communication with and among other persons and organisations within Australia and overseas where this is in the interests of ARA and its members through its website, newsletter, events and working groups.

g. Promoting policies that achieve these objectives.

h. Collaborating with all industry stakeholders in the achievement of these objectives including government, RAC industry and RAC user industry organisations.

A critical immediate issue is the transition of the industry to safe, efficient and sustainable technology and management practices in all respects. One of our immediate objectives is therefore to cause the Refrigeration and Air Conditioning industry, in collaboration with government and industry stakeholders, to adopt a comprehensive strategy to increase energy efficiency and reduce refrigerant and greenhouse gas emissions in all RAC sectors.