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Senate Inquiry into the Clean Energy Bills

Refrigerants Australia Submission

to

the Joint Select Committee on Australia's Clean Energy Future Legislation

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Background:

The Government's Clean Energy Future Package, released on 10 July, proposes placing a carbon tax equivalent on synthetic greenhouse gases (mainly HFCs), which are largely used as refrigerants.

The tax is to be implemented under the existing Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (OPSGGMA).

The Clean Energy Future statement briefly deals with SGGs.

The document states:

"*Synthetic greenhouse gases*
High global warming potential synthetic greenhouse gases (with the exception of per fluorocarbons from aluminium smelting) will not be included in the carbon pricing mechanism but will be subject to an equivalent carbon price using existing import and manufacture levies under the Ozone Protection and Synthetic Greenhouse Gas Management legislation. Levies will be adjusted annually to reflect the prevailing carbon price.

From 1 July 2013, incentives will be provided for destruction of waste synthetic greenhouse gases, including ozone depleting substances, recovered at end of life."

The tax will be levied at the following levels:

2012-13: $23 per tonne CO2e
2013-14: $24.15 per tonne CO2e
2014-15: $25.40 per tonne CO2e

After 1 July 2015, the carbon price will be the benchmark average auction price.

Industry estimates indicate that this tax will raise in excess of $270 million in 2012.

This figure is a multiple of the current industry turnover, and represents a price increase ion these substances of 300% to 500%

The purpose of the tax

The material produced as part of the Clean Energy Future package tells us that putting a price on carbon is the most cost-effective way to reduce emissions.

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While this may be true as a general principle, it is not the case when it comes to HFCs, given their particular characteristics and the existing set of controls applied to these substances.

We are unable to find any analysis of the effectiveness of such a tax in the Treasury modelling.

A misguided policy, born of a complete lack of consultation

There has been no consultation with the industry on the design and effectiveness of this tax, and no examination of alternative ways to minimize emissions in the sector.

In May 2011 the industry supplied detailed submissions to the public consultation on the Multi Party Committee on Climate Change document 'Architecture and Implementation Arrangements for a Carbon Pricing Mechanism', although this document provided no detail in regard to HFCs. There was no response to these submissions, which would seem to have been ignored.

Subsequent to the announcement of the Clean Energy Future package on 10 July, a Regulatory Impact Statement (RIS) was released on 21 July. The SGG section of the RIS meets none of the criteria set out in the Government's Best Practice Regulation Handbook. The RIS dispenses with SGGs in 503 words. It does not go into any substantive issues, and certainly does not examine 'the likely impacts of a proposed regulation and a range of alternative options which could meet the Government's policy objectives."

It contains no analysis, does not examine alternative options, does not outline the intended outcomes, and provides no evidence of stakeholder consultation.

Questions put to the Department of Climate Change indicate that there has been no analysis of the additional abatement that the tax is intended to achieve.

One size fits all- what happened to evidence-based policy?

The introduction of the tax is apparently intended to reduce emissions of SGGs, which largely take the form of HFC refrigerant gases.

While there is no detail available outlining how this would work, or indeed what reductions could be expected, this policy ignores the fact the there has been a mandatory prohibition of preventable emissions of these substances set out in the OPSGGMA since 2003.

Any technician or business allowing a preventable emission could lose their licence to purchase these substances, effectively excluding them from the industry. In addition to its environmental impact, a preventable emission is also bad business- these substances already cost money, and any business allowing them to escape to atmosphere will not remain viable for long.

Perverse Outcomes

The imposition of the tax will drive a number of perverse outcomes.

In particular, it should be noted that the environmental impact of an item of airconditioning and refrigeration equipment goes well beyond the GWP of the refrigerant. A much more significant impact comes from the electricity used by the equipment over its working life, hence the focus on energy efficiency.

In domestic airconditioning, R22, an ozone depleting and relatively inefficient refrigerant, has been replaced by R410a, a non-ozone depleting highly efficient refrigerant. Without the application of this refrigerant, recent increases in Minimum Energy Performance Standards for Airconditioners would have been impossible to achieve.

Yet under the new tax, R410a will face a very significant tax penalty- its price will more than triple.

For reasons set out below, this is likely to have little impact on the use of this refrigerant, especially as there is currently no energy-efficient alternative available at this time.

Nevertheless, the costs will have to be borne by the industry, for negligible environmental benefit.

A Lack of Price Elasticity:

The effect of a carbon pricing mechanism on refrigerant choice in Australia is severely limited.

In new equipment, refrigerant choice is made by global equipment manufacturers- Australia is a technology taker in this area.

With existing equipment, the choice has already been made. It is important to understand that different refrigerants cannot be substituted for each other- much like diesel and petrol, they can only be safely be used in equipment specifically designed for the use of that particular refrigerant. While some retrofitting can be undertaken, its capacity to deliver significant emissions reductions across the board will be limited.

Over 90% of the bulk HFC refrigerant imported into Australia is used to service existing equipment- again there is extremely limited capacity for a refrigerant change stimulated by a price signal.

Of course, in the selection of new equipment, refrigerant type, and cost, will play an increased role, although only in areas where lower GWP products exist, and are cost- competitive.

During the CPRS debate it was suggested that a price signal could lead to better practices by technicians, leading to lower emissions. However, this suggestion overlooks the fact that for some years there has been a blanket prohibition on preventable emissions in the Ozone Protection and Synthetic

Greenhouse Gas Management Act 1989. There are no practicable behavioural changes technicians could introduce that are not already required of them by law.

The lack of elasticity relates to the fact that in exiting equipment there are no direct alternatives, in new equipment there are currently few alternatives and overall, the price of refrigerant comprises a very small part of the total cost of a piece of equipment.

The Move to Low-GWP Refrigerants is driven by Regulatory Change

The airconditioning and refrigeration industry is moving towards the adoption of low-GWP refrigerants, but this process has been driven by regulation, particularly the EU F-Gas Regulations. Due to the global nature of the industry, low GWP technology developed to comply with these Regulations will be introduced into Australia irrespective of a carbon price.

A clear example is that EU Directives ban the use of high GWP refrigerants in vehicle airconditioning systems after 2017. The USEPA has recently announced its intentions to introduce similar controls.

The world vehicle industry is in the process of adopting a low-GWP HFC refrigerant in vehicle airconditioning worldwide for new vehicles from 2017, and inevitably Australian domestic manufacturers will follow suit.

This change alone, driven by the European F-Gas Regulations, is likely to result in a 12% reduction in Australian HFC refrigerant emissions over 2010 levels by 2017/18.

Significant Financial Disruption for Little Outcome

The carbon intensity of HFC refrigerants means any carbon pricing mechanism will have considerable effects on price- estimates made during the CPRS process indicate that prices could rise by up to 500% for the most commonly used refrigerant, based on a carbon price of $20 per tonne.

While this will generate considerable financial stress at a number of levels within the industry, perversely it is likely to have very little effect on consumer behaviour.

At the top of the refrigerant commerce chain there are a number of importer/distributor companies with turnovers in the $20 million region. The imposition of a $23 per tonne carbon price will mean that these companies will need to acquire additional working capital of $80 to $100 million. In total the industry will need to find an additional $250m to $300m.

Perversely, by the time these costs work their way down to the consumer, their effect will be minor, meaning that, even when and where alternatives were available, the price signal to the consumer is likely to be weak. For example, a carbon price of $23 per tonne would increase the price of a car, in terms of its airconditioning system, by less than $20.

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A good quality 7.4kW domestic split system airconditioner will see a price increase of less than $100 on a unit that retails for $2,600- well within the margins of a competitive retail environment.

Price Signals have Failed Before

The lack of responsiveness to price was clearly demonstrated in the US in late 1980's, when a large tax was placed on CFCs, on the supposition that such a tax would serve as a disincentive to their use.

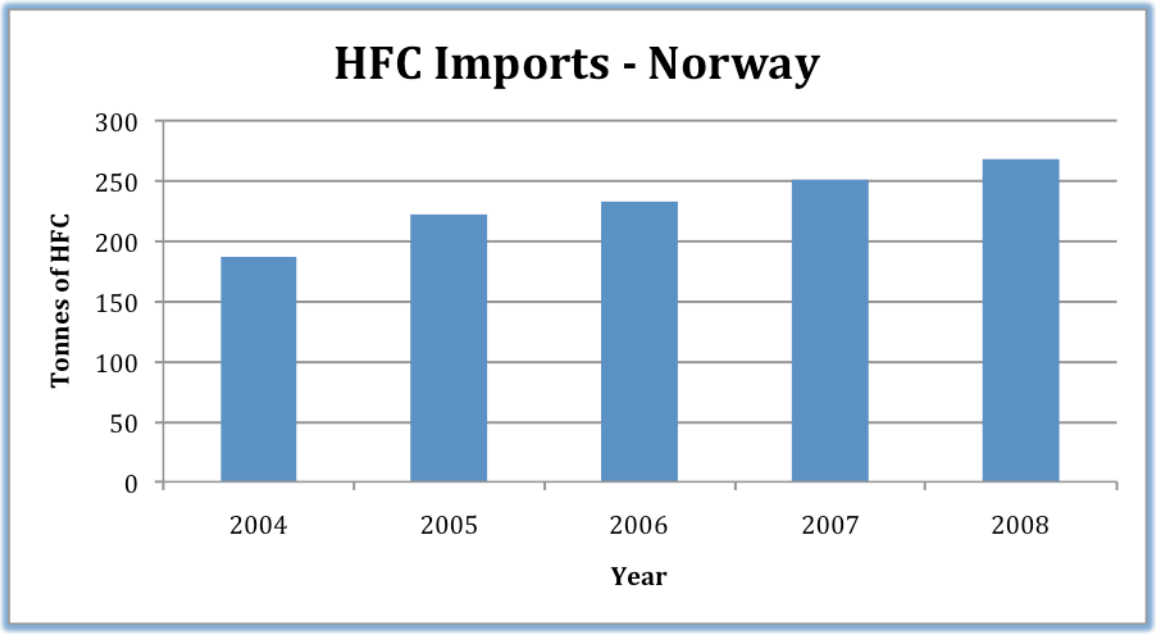
However, the tax did not depress demand- rather it created an enormous market for refrigerant smugglers- for a time CFCs were one of the most smuggled items into the United States.

It is telling that when the USEPA moved to control HCFCs in the early 1990s, the tax was not included in the control regime.

Similarly, in the White Paper on the CPRS, mention was made of a Norwegian study looking at the introduction of a HFC tax in that country, and alleging that the very significant tax increase 'seems to have resulted in a flattened growth in imports', thus demonstrating a degree of elasticity.

The study looked at the effects of a tax introduced in 2003, based on data that only extended to 2005. Industry criticised the conclusions drawn, pointing out that the study was severely compromised by the short time frame, and the effects of stockpiling which naturally led to a short-term reduction in imports.

The Norwegian tax was introduced in 2003 when the 2004 HFC refrigerant imports were 187mt. However, subsequent data obtained from the Norwegian Pollution Control Authority shows that by 2008 imports had risen to 268mt, a growth rate of over 40%.



Norwegian HFC Refrigerant Imports 2004 - 2008

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A More Effective Way to Reduce HFC Emissions

Industry has been on a 20-year journey moving to better (non-ozone depleting, lower global warming, more energy-efficient) refrigerants. There is a solid track record in this area, with Australia currently well in advance of its international obligations in terms of HCFC phase-out.

Current proposals under consideration internationally offer the most sustainable path to significant and meaningful refrigerant emission reductions over the medium term.

This approach involves managing HFCs under the framework of the Montreal Protocol, which has a successful track record of managing fluorocarbons. The current proposal envisages an 85% reduction in HFC emissions by 2033.

At the Meeting of the Parties last year, 90 countries including Australia signed a declaration indicating their intent to seek the inclusion of HFCs in the Montreal Protocol.

Domestically, HFCs are already regulated (since 2003) by the Ozone Protection and Synthetic Greenhouse Gas Management Act 1989.

Existing controls can be further developed to further reduce HFC emissions and improve compliance with these controls. In addition, any reductions introduced under the Montreal Protocol can be readily implanted under this legislation.

This solution is much more cost-effective, and provides both Government and industry with much greater certainty.

The particular price-inelastic nature of HFCs means that market-based mechanisms are likely to be ineffective, just as they were with CFCs.

The existing framework- the Montreal Protocol and the Ozone Protection and Synthetic Greenhouse Gas Management Act – has proved an excellent tool to manage fluorocarbons, reducing their emissions while transiting to preferable technologies. While CFC-12 had an ODP of 0.95, we should not lose sight of the fact that it had a GWP of 10,600.

While not initially focused on climate, its successful action thus far with CFCs and HCFCs means that the Montreal Protocol has delivered more than four times the abatement that the much larger Kyoto Protocol has been able to muster.

This way forward offers a much more cost-effective mechanism to reduce HFC emissions than that proposed imposition of a carbon tax on HFCs.

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