

Briefing Paper for Ministers Parker and Shaw

On behalf of the HFC Phasedown committee we thank you for the opportunity to engage with you once again on this issue, critical to the HVAC&R Industry.

We, the HFC Phasedown Committee represent HVAC&R Industry organisations, IRHACE, CCCANZ, RLNZ and Recovery. More about our entities in the supplementary document.

This paper provides an overview of the issues highlighted in our invitation to meet, along with brief commentary on other related issues which remain of concern to our industry prior to ratification. To support our concerns, we have provided brief evidence and can provide additional examples at a later date, should they be required.

Our industry has made repeated approaches to the Ministry regarding our concerns, the latest as recently as the consultation paper on 23rd October for the draft regulations. We do appreciate your time and willingness to hear our concerns, as to date the below issues have gone largely unheeded by the Ministry.

1. Import of Equipment Pre-charged Equipment with Refrigerant

We acknowledge the nations obligations under the Montreal Protocol is only to bulk HFC Refrigerants, however;

Issue

As the phase-down of bulk refrigerant imports progresses there is a real risk of an increase of refrigerant entering the country in pre-charged appliances. In equipment such as vehicles, air conditioning units, heat pumps, domestic and commercial refrigerators even. Currently this pre-charged equipment accounts for close to 50% of all refrigerant coming into NZ, and that ratio is growing. There is also a real risk that the refrigerant imported in this pre-charged equipment could be the high GWP refrigerants we are phasing out, further undermining NZ's environmental agenda.

There is also the possibility that Industry will avoid drawing on the bulk refrigerant pool through moving to pre-charged units or installing refrigerants not designed for the original plant, which could have considerable

Evidence

1. Section 3.5 (p20) of the Expert Group report to MfE in October 2017 states below:

3.5 Pre-charged imports

A significant quantity of HFCs enter the New Zealand economy every year in the form of imports of 'pre-charged equipment' (PCE). In 2016 more than 425 tonnes of HFCs were imported into New Zealand in PCE.

2. Figures from ETS show volume of pre-charged equipment imported into NZ at the border is substantial (500,000 units in 2016/2017). This represents in excess of 47% of the refrigerant crossing the border
3. This same report states that our net bulk HFC imports are approx. 460MT/year so validates the 'almost 50%' statement. The National Interest Analysis (MfE July 2018 para 28) states that in 2016 the consumption of bulk HFC's equated to 1,971 kilotonnes CO₂ equivalent so

this is a relatively safe number to use as an approximation of the GWP associated with Pre-charged imports so a gross of close to 4,000 kMT CO₂e.

Figure 1: Proposed baseline and phase-down steps for New Zealand



Solution

We accept pre-charged controls are not applicable under the Montreal Protocol, however we seek commitment from the Ministers and the Ministries as part of the ratification process, to formally commit to a review of this issue within 12 months of ratification to introduce controls around pre-charged systems. Failure to implement controls may result in insufficient refrigerant being available in future to support maintenance pre-charged equipment if containing high GWP HFC’s. The European Community have captured the obligation for gas in pre-charged systems within their F-gas regulations requiring equipment importers to account for the GWP impacts within the quota system.

2. Export of Recycled HFC’s

Issue

It is wrong that under the proposed Regulation 23, there are no proposed controls on export of used HFCs. Currently the most used HFC exports are for destruction. However, there is an opportunity for exporters to gain commercial advantage at a cost to the Crown by exporting used HFCs and claiming the ETS credit. This credit can then fund other activities, including reprocessing in another country for further gain. Exporting used HFCs for use outside NZ, does not reduce the environmental impact, but shifts it to another country whilst being funded by NZ. In the interests of the environment this should not be allowed to occur.

Evidence

The Expert Group state as below (Section 3 of the report). At today's price of ca. \$25/NZU this bank has a value of \$340million. If an operator can collect say 5% of the bank per year for export that's \$17million in NZU based income

Excluding only gases with a GWP <10, in aggregate the GWP of the bank is calculated to be equivalent to approximately 13,600 kilo tonnes of CO₂-e (13.6 Mt CO₂e) and the 2016 consumption of bulk imports was

Solution

To meet the underlying objective of the protection of the environment, there must be controls under Regulation 23 to ban the export of used HFCs intended for reuse or revoke entitlement to NZU's on export for anything other than destruction. There is a requirement under Article 4B 2 bis of the Montreal Protocol to license the export of used HFCs and Regulation 23 should be clarified to cover used refrigerants and include a ban or remove the right to receive NZU's for export of used refrigerants that are not via a Product Stewardship scheme (for destruction).

3. Ban on transfer of existing entitlements between sectors

The draft regulations allow for the transfer of part or all of eligibility to apply for grandparented permit. There appears to be no restriction on transferring this eligibility between different uses. HFC's are currently used in both the refrigerant industry and the foam industry. The foam sector has the ability at minimal capital cost to move away from the use of HFC's and there does not appear to be any restriction on their HFC entitlement being transferred or traded into the refrigeration sector

Evidence

10 Foam

Foam blowing agents comprised around <3% (~15 tonnes) of all bulk HFCs imported into New Zealand in 2016. Unlike almost every other major and minor application of HFCs, a proportion of this material is

The Expert Report advises as above for the foam industry. Is a small proportion of total but is currently unavailable to refrigeration because it is used for foam so should remain unavailable (as should fire protection consumption)

Solution

Restriction must be placed on the transfer of entitlement between use sectors in the regulations. In addition procedures must be developed prior to ratification, to ensure export of bulk HFC's is controlled as part of the regulation.

4. Health & Safety, Training Implications with Introduction of Low -GWP Refrigerants

Issue

The above issues if investigated in more detail, highlight the inherent safety risks if left unchecked in these regulations with the introduction of low-GWP refrigerants. Their higher toxicity and flammability and pressure characteristics accentuate the issues the nation will face. Those combined with potential for shortages of current refrigerant to support existing equipment could see shortcuts, poor practices and some terrible outcomes in what is currently an unregulated industry.

Even with acceptable regulation on the part of MfE the inherent risks will not be fully addressed.

Evidence

We have already seen a catastrophic incident in NZ in Tamahere in 2008, and International accidents with increased presence of low-GWP refrigerants are proliferating. The value a mandatory credential will bring, will outweigh the risks associated with the current inadequate framework and insufficiently trained workforce in a low-GWP environment.

Solution

We appreciate MBIE and Work safe are committed to developing a Certificate of Compliance with our industry which if mandatory for all concerned will go a long way to mitigate any health & safety concerns that may arise with these low-GWP refrigerants.

Other Key Issues

The HFC Phasedown Committee have a number of concerns with the intended regulations for the Kigali Amendment and which as mentioned above remain unaddressed. These are listed in brief below, but we see these issues as equally important to a fair outcome post ratification. Feel free to ask for more information on these issues should you wish to discuss

1. Commitment to end of life Product Stewardship to obtain entitlement permit
2. Requirement for reporting of all refrigerant imports
3. Phase-out dates for high GWP HFC's
4. Phasing out of grandparenting entitlement

In summary

Thank you for the opportunity to air our concerns. The HFC Phasedown Committee appreciate the attention of the Ministers as the ratification nears and trust our engagement in the leadup will affect the changes we believe must be employed to ensure a fair and orderly HFC Phasedown.

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