

Meeting with stakeholders on PFAS restriction dossier

Short report to be shared with PFAS restriction group and the relevant stakeholder

Date: 9 March 2022

Place: Online (1 h 15 min)

Reporting Member State:

- NO

Participants (names and organization):

- Member States: Jenny Ivarsson (SE), Maria Ujfalusi (SE), Mikkel Aaman Sørensen (DK), Toke Winther (DK), Alice Gaustad (NO), Ole Røgeberg (NO), Anne Line Filtvedt (NO), Audun Heggelund (NO)
- Stakeholders: Meglena Mihova (EPPA), Stephan Kolb (Viessmann), Carlos Sokol-Szahin (EPPA), Joachim Maul (Viessmann), Giacomo Miele (EPPA)

Role of stakeholder/company:

- [Viessmann](#) is a German company manufacturing heating and refrigeration systems. [EPPA](#) is a specialist management consultancy that assists clients in managing alignment between business, European Union institutions and governments.

Specific PFAS substance (if applicable):

- F-gases and alternatives – especially for use in heat pumps

Specific subject (if applicable):

- Viessmann is a manufacturer of heat pumps based on F-gases and non-PFAS refrigerants (specifically propane, R-290). Concerned about providing factual information on the alternative natural refrigerant heat pumps

Stakeholder invited to provide the information presented in call for evidence or public consultation?

Yes. Viessmann has contributed to both consultations so far and was encouraged to contribute also to public consultation.

Report

- Round of introduction of participants as listed above.
- The relationship between the F-gas Regulation and the PFAS restriction was discussed. A concern is that messages on natural refrigerants in hydronic heat pumps are sometimes confusing, e.g., with regard to safety or energy performance. Non-PFAS alternatives are available – specifically hydronic heat pumps based on propane (R-290), in hermetically sealed monobloc configurations, and there are safety standards for safe outdoor and indoor use. For split - that is, configurations that are not hermetically sealed - heat pumps R290 is not an option, but F-gases out of the scope of the PFAS ROI definition are needed.
- There is a claim that F-gases have higher energy efficiency in heat pumps. This is a myth and is wrong. In fact, it is the other way around. Propane has a comparable, if not higher energy efficiency, and is particularly suited for higher outlet temperature (up to 70 °C). Use of propane in heat pumps has been known for 25 years. There are already 100.000 heat pumps based on propane installed.
- Safe use of propane can be achieved by using outdoor installations, while also indoor installations are possible with additional safety measures. Safety measures are set out in the global standard IEC 60335-2-40:2018. Monobloc design will be easier and safer to install as the refrigeration unit is hermetically sealed and in a closed box. At least in Scandinavia gas stoves are quite familiar and it is not uncommon to have 10 Kg bottles with propane in a kitchen.
- Viessmann presented its company and business, and explained hydronic space and water heating heat pump based on propane (R-290). Viessmann is an active contributor to policy development and aims to make heat pumps sustainable. Transition from HFCs to HFOs would be a regrettable development as this may lead to formation of harmful HFO degradation products (R-23 and TFA).
- Viessmann has done its own SEA covering their business. Data showed that over 10 years, the expected benefits of transitioning to natural refrigerants will largely out-weight any initial R&D investments, and beyond that period (20 years), Viessmann expects these benefits to almost triple.
- In the case that only minor measures addressing HFOs are introduced, there is a huge risk of HFOs rapidly replacing HFCs which will lead to increasing formation of HFO degradation products. Viessmann suggested that failure to establish clear regulatory framework now via PFAS Restriction, where suitable alternatives (natural refrigerants) are available, risks sunk R&D costs for individual companies and the whole EU industry. Clear rules should support the transition to future-proof natural refrigerants and sustainable heat pumps.
- Viessmann has shared the presentation from the meeting.