



Excerpt for participants:

Monitoring of refrigerant prices against the background of Regulation (EU) No 517/2014

Q4/2021



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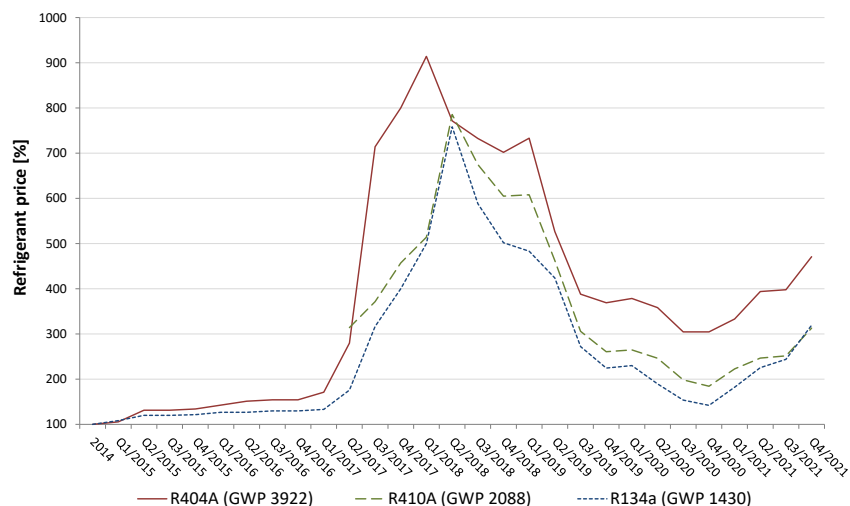
In cooperation with AFCE, AREA, ATF, BWP, CONAIF, EPEE, Eurovent, SNEFCCA, and VDKF.

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In Q4/2021, 66 companies from 13 EU Member States (main respondents from France, Germany, Italy and Poland) and all supply chain levels (3 gas producers, 14 gas distributors, 31 OEMs, 15 respondents from the service sector, 1 end-user and 2 others) reported purchase and/or selling prices for HFCs and lower GWP alternatives either in absolute terms (€/kg) or as price index (with 2014 as baseline year). Please note that companies do not report prices for all refrigerants but only for the ones relevant to them.

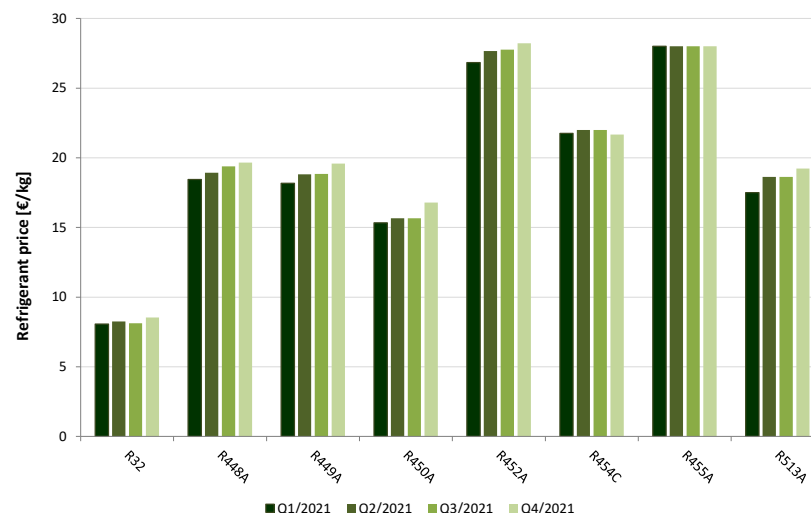
Along the supply chain

Figure 1 shows the development of average relative HFC selling prices reported by all gas producers that participate in the survey. At the producer level, prices increased on average by 25 % from last quarter.



OEM level

Figure 2 shows average purchase prices of alternative synthetic refrigerants from Q1/2021 to Q4/2021, provided by 10 gas distributors from different Member States. In 2021, price increases were rather small but most prominent for R513A (+ 10 %), R450A (+ 9 %) and R448A/R449A (+ 7 %).



Findings for Q4/2021:

- Since Q4/2020 prices have risen significantly for the high GWP gases and mixtures, in particular for R-134a (on average up by 15 %, throughout supply chain).
- The reasons are reported to be several:
 - The 2021 phase-down step is reducing the quota supply further.
 - Significant freight and transport problems due to labour shortage caused by the Covid-19 pandemic led to significant cost increases, bottlenecks in transport capacity and delivery delays, with the entire supply chain affected. Refrigerant production volumes by non-EU suppliers appear to have been reduced, inter alia due to shortages in the supply of raw materials, which led to strong price fluctuations on the market and increases in production costs.
 - Further, as a result of the HFC phase-down pursuant to increasing ratification levels of the Kigali Amendment to the Montreal Protocol, international regulatory pressure on US HFC production volumes appears to affect refrigerant prices on the European market.
- Compared to 2014, prices of R134a, R404A and R410A are 2 to 7 times higher depending on the supply chain level, with R134a (2 to 3 times) ranging at the lower end and R404A at the upper end (3 to 7 times).