



Monitoring of Refrigerant Prices on the EU market

in light of the HFC quota system put in place by Regulation (EU) 2024/573

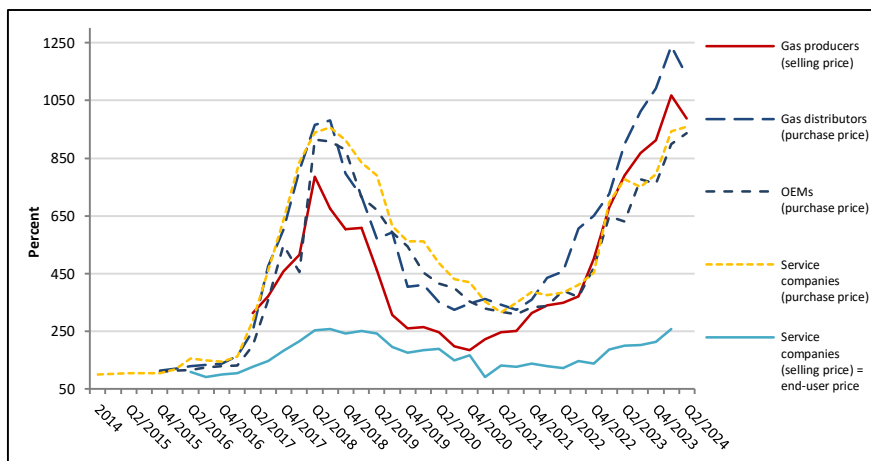
Results of Quarterly Survey: Quarter 2/2024

*This work was performed by independent consultants Öko-Recherche, CITEPA
in cooperation with PROZON, CONAIF and VDKF*

In Q2/2024, 69 companies from 10 EU Member States (main respondents from Germany, Poland and France) and all supply chain levels (3 gas producers, 20 gas distributors, 25 OEMs (original equipment manufacturers), 14 respondents from the service sector and 1 equipment renting company) 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) to the consultants. Please note that companies do not report prices for all refrigerants but only for the ones relevant to them.

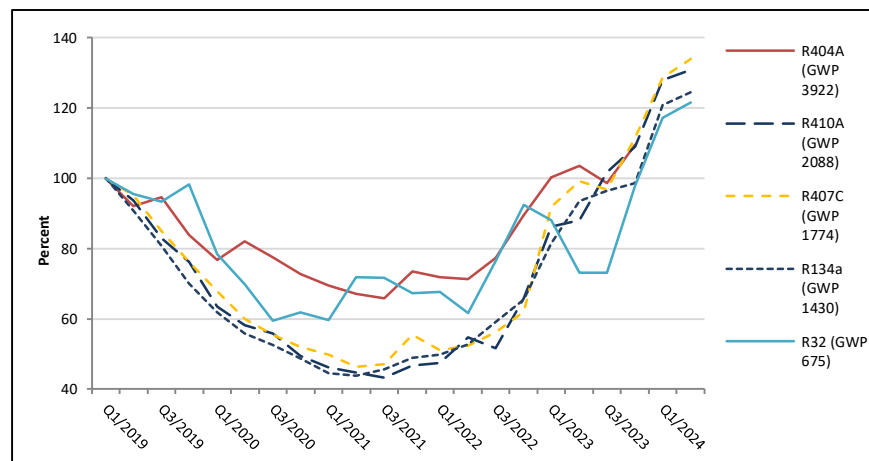
Along the supply chain

Figure 1 shows the **price developments for R410A** (GWP 2088) at all levels of the supply chain. Data presented include prices reported by 3 gas producers, 8 gas distributors, 11 OEMs, and 7 service companies.



OEM-level

Figure 2 shows the **development of average HFC purchase prices** reported by all OEMs that participated in the survey. At the OEM level, prices increased on average by 3% from last quarter, with the most notable change for R407C (+4%). Prices at OEM level are usually determined by longer term fixed price agreements.



Further findings:

- In general, the EU refrigerant market appears to be stable in terms of supply (no indications of limited regional refrigerant availability/ shortage).
- The price of quota authorizations was indicated to be ranging from 14 to 18 €/t CO₂e (selling price). On average, authorization prices amounted to 15.8 €/t CO₂e, approximately. Compared to Q1/2024, the price of quota authorisations decreased by 4%.
- Compared to 2014, prices of R134a and R410A are 2.7 (end-users) to 11.1 (OEMs) and 9.4 (OEMs) to 11.4 (distributors) times higher depending on the supply chain level, respectively. For comparison: on the world market, producer prices increased by a factor of 1.3 for R410A (evidence from Q2/2024).
- Compared to Q1/2024, the purchase price of reclaimed R404A decreased by 11% and 7% on service company and distributor level, respectively.
- In Q2/2024, reclaimed R404A is 12.7-fold the price level of virgin R404A material in 2014 on service company level. Virgin prices in Q1/2024 were 12.9 times higher compared to 2014 levels.