



## Excerpt for participants:

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

Q3/2023



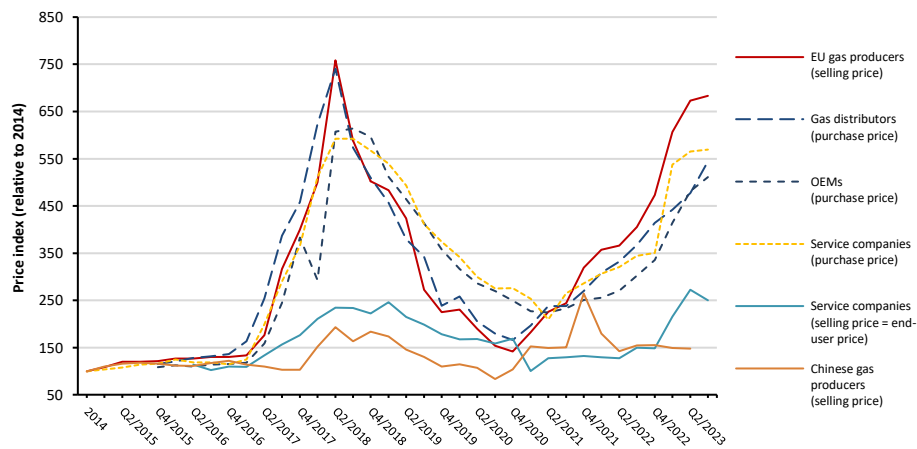
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In Q3/2023, 59 companies from 12 EU Member States (main respondents from Germany, France, Italy and Poland) and all supply chain levels (3 gas producers, 14 gas distributors, 27 OEMs, 12 respondents from the service sector, 4 end-users and 1 equipment 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). Please note that companies do not report prices for all refrigerants but only for the ones relevant to them.

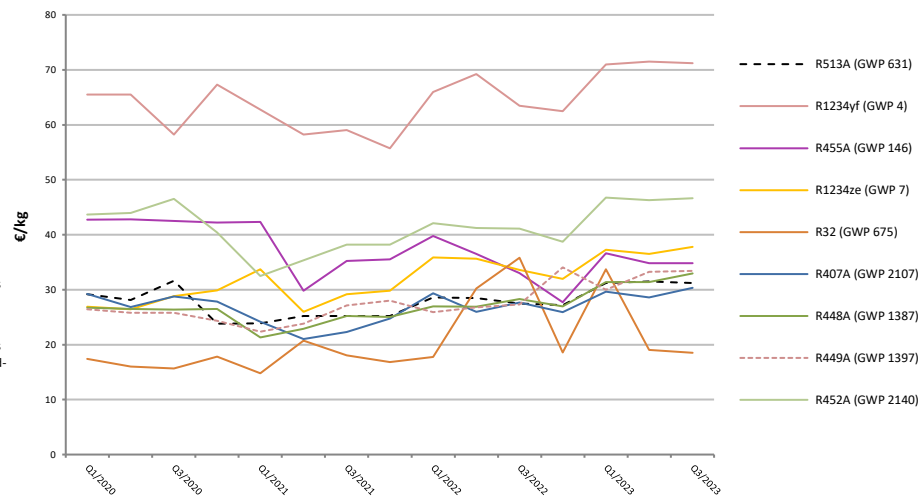
### Along the supply chain

Figure 1 shows the **price developments for R134a (GWP 1430)** at all levels of the supply chain. Compared to Q2, R134a prices reported for Q3 increased at all levels of the EU supply chain (up by 3% when calculating the average over all levels of the supply chain), whereas prices in China have dropped from Q1 to Q2. Data presented include prices reported by two gas producers, 11 gas distributors, 14 OEMs, and 12 service companies.



### Alternatives

Figure 2 displays the development of purchase prices of some fluorinated alternatives with medium-high or low GWP as reported by 5 companies on average (minimum 2) from the service sector. Considering all the refrigerants displayed, prices increased by 1%.



### Further findings:

- For the high GWP gases/mixtures R410A, R134a, and R404A considerable increases have been observed throughout the supply chain (average prices up by 83%, 64%, and 62%, respectively, when compared with price levels reported in Q3/2022). Note that most EU suppliers indicated that they have stopped selling virgin R404A.
- Prices of natural refrigerants also showed an increase in comparison to Q1/2023 (R290, R744 and R717 went up by 41%, 17% and, 1%, when taking together the effects along the supply chain).
- In general, the EU refrigerant market appears to be quite stable in terms of supply. There were no indications of limited regional availability.
- The price of quota authorisations increased, with prices ranging from 14 to 20 €/t CO<sub>2</sub>e. Average authorization prices amount to 16.6 €/t CO<sub>2</sub>, approximately. Compared to Q1/2023, the price of quota authorizations increased by 7%.
- Compared to 2014, prices of R404A and R410A are 3.1 to 15.4 and 2.2 to 8.7 times higher depending on the supply chain level, respectively. Compared to Chinese producer prices, European selling prices for R134a are 6-fold. For R410A, current EU prices are nine times higher than Chinese producer prices.