



The experience with implementing the F-Gas Regulation in the European Union

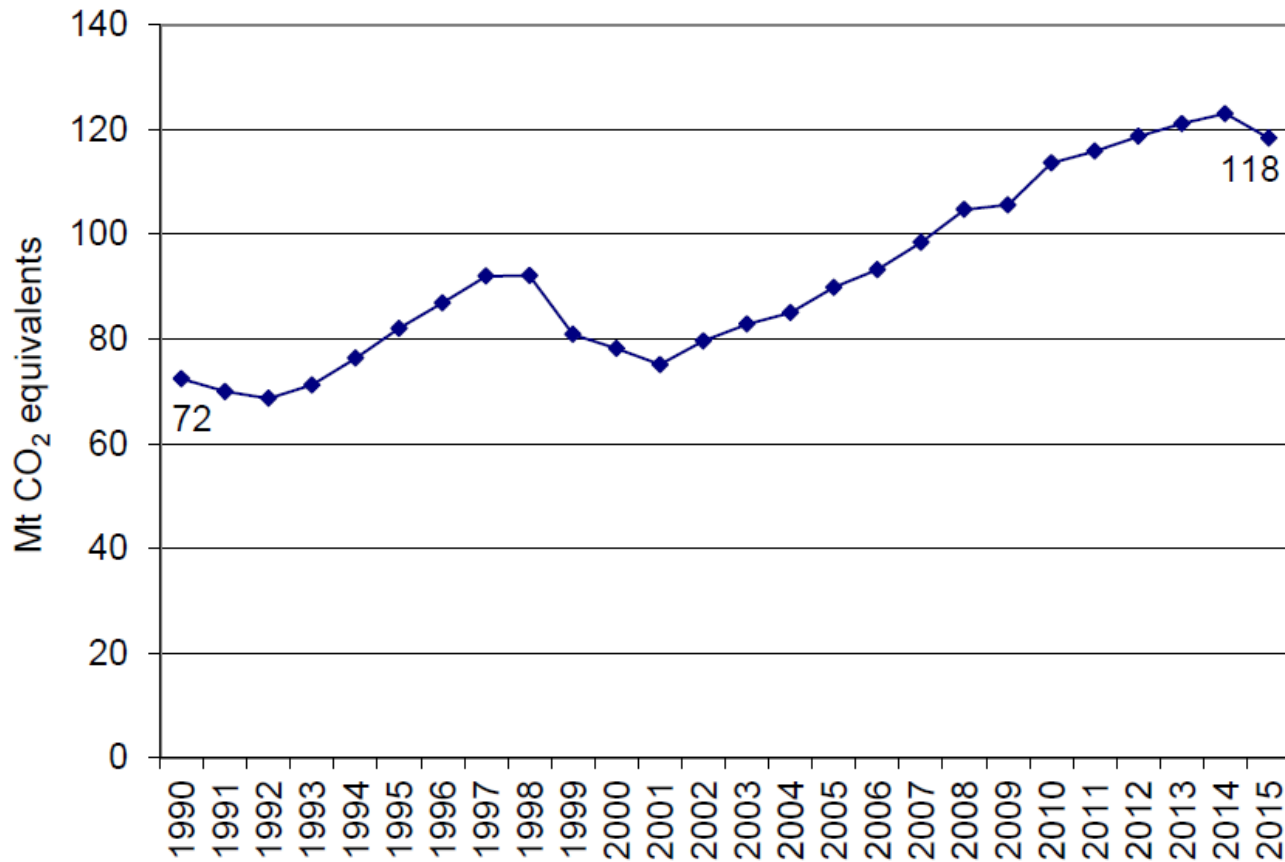
Cornelius Rhein
European Commission

SUSTAINABLE TECHNOLOGIES FOR AIR CONDITIONING WORKSHOP

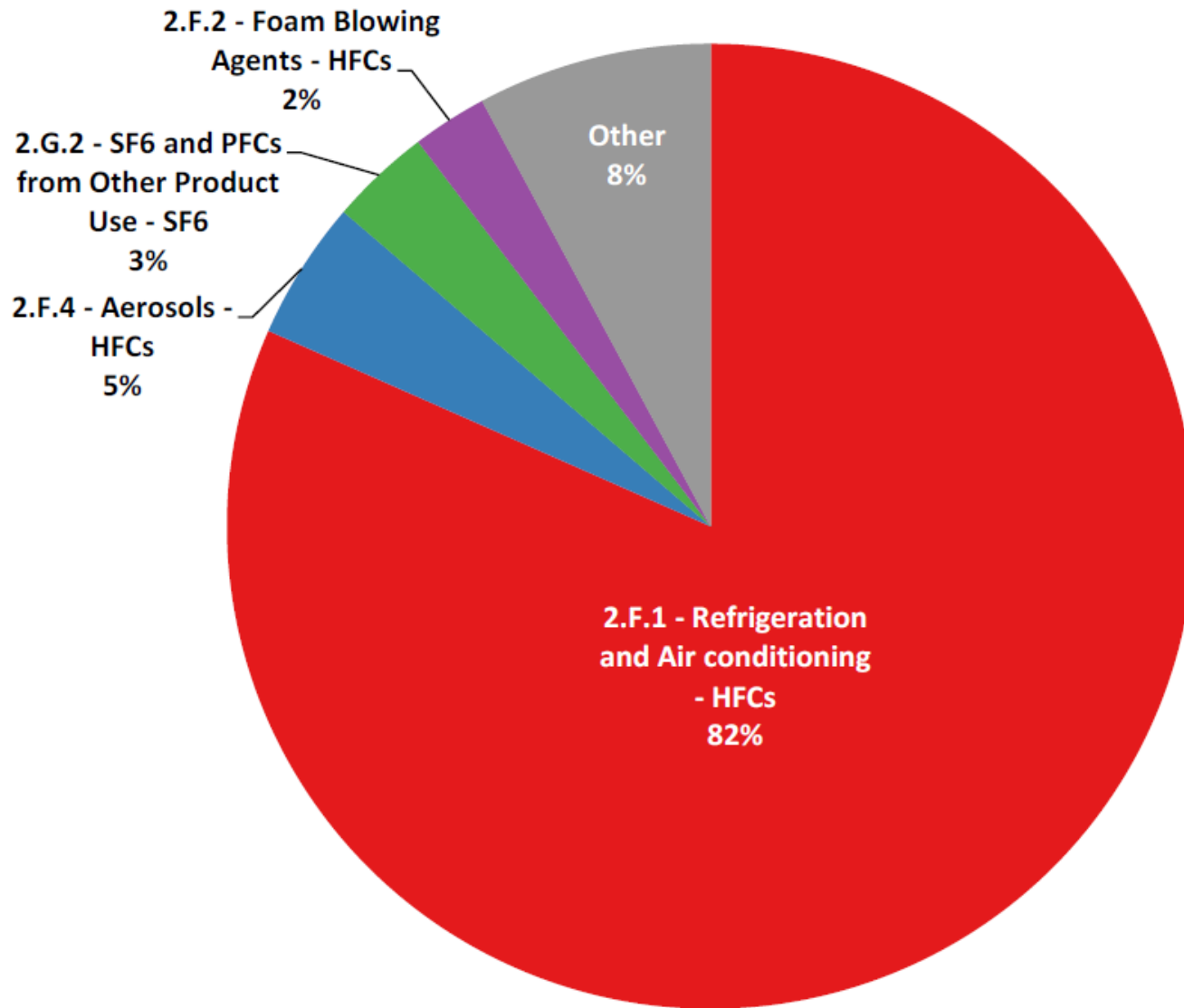
MONTREAL, CANADA

Saturday, 18 November 2017

EU F-gas Emissions 1990-2015



Source: EU submission to UNFCCC (EEA Report No 6/2017)



Strategies to prevent emissions

Prevent leakage and emissions

- Emission prevention and leak checks
- Control of by-production
- End of life treatment of products and equipment
- Training and qualification
- Information for users (labelling, product information)

Avoid use

- Training and qualification
- Ban on new applications
- Ban on certain uses (high GWP HFCs, PFCs and SF₆)

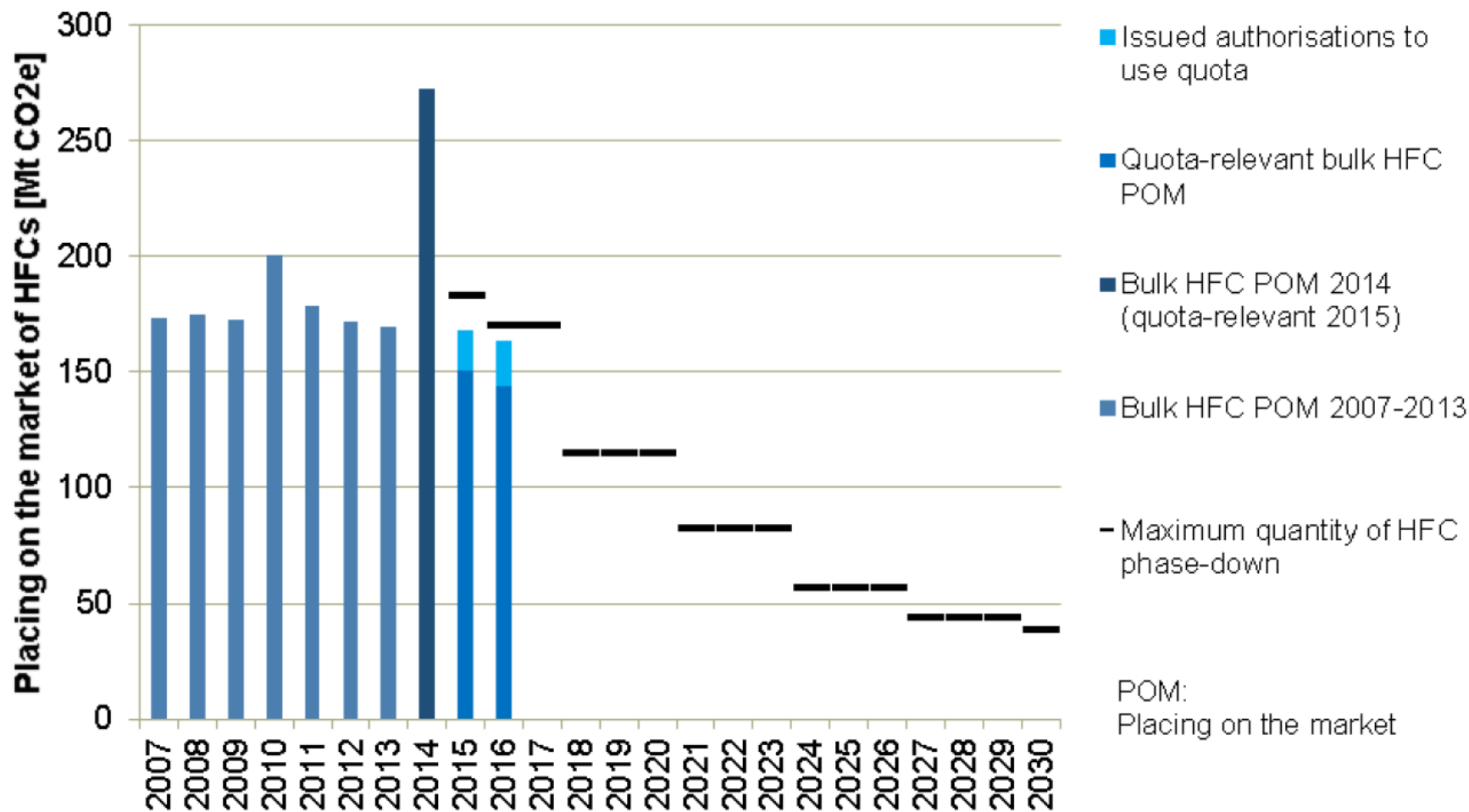
Phase-down HFC supply



Upstream Market Measure: Reduce HFC supply imports and production (measured in CO₂eq.) in 3 year steps by ~80% (2030)

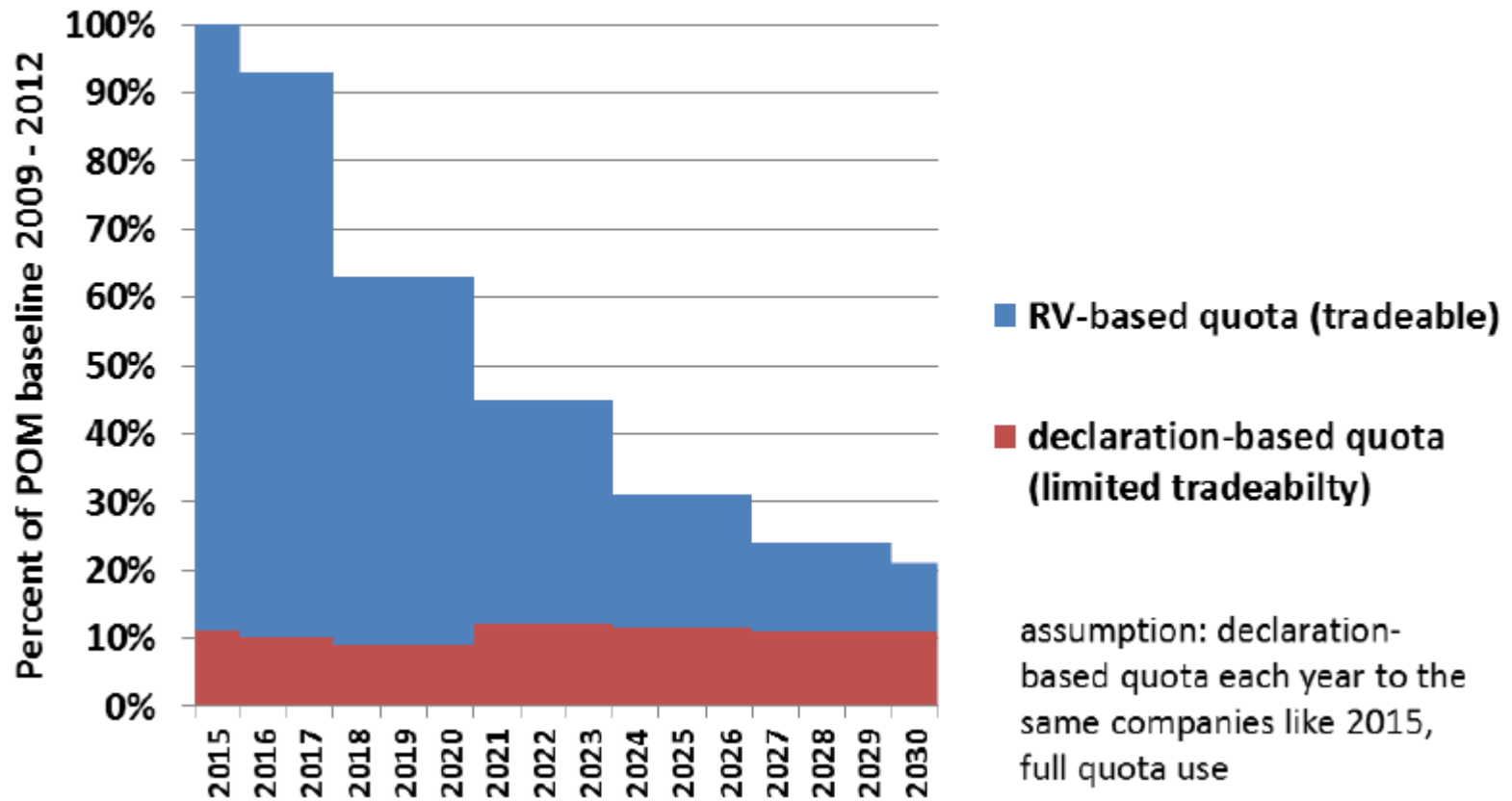
- Companies importing or producing HFCs (bulk!) get **HFC quota** every year → *more metric tonnes of climate-friendlier substances can be sold*
- A company can only place quantities of HFCs on the EU market up to their quota limit
- All HFCs in Pre-charged RAC equipment need to be accounted for in the quota system from 2017

HFC Phase-Down Compliance

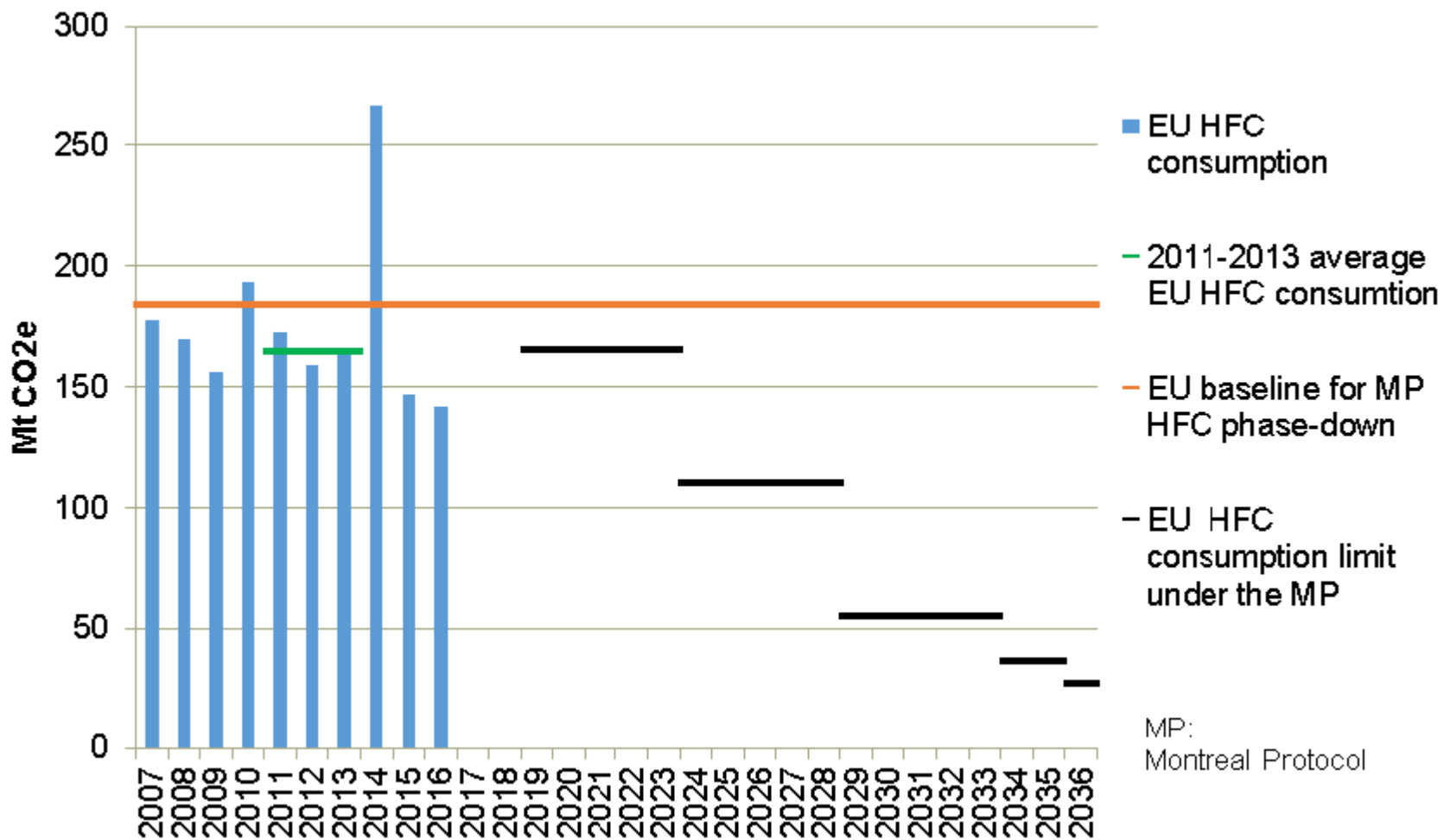


Source: Upcoming EEA Report - Fluorinated GHG 2016

Quota allocation under the EU HFC phase down



EU compliance with the Kigali Amendment



Source: Upcoming EEA Report - Fluorinated GHG 2016

Improving the situation for (SME) importers of equipment

(i) pooling system:

An equipment manufacturer, eg. an "authorisation manager", can obtain a larger amount of authorisations, and redistribute ("delegate") these to its importers

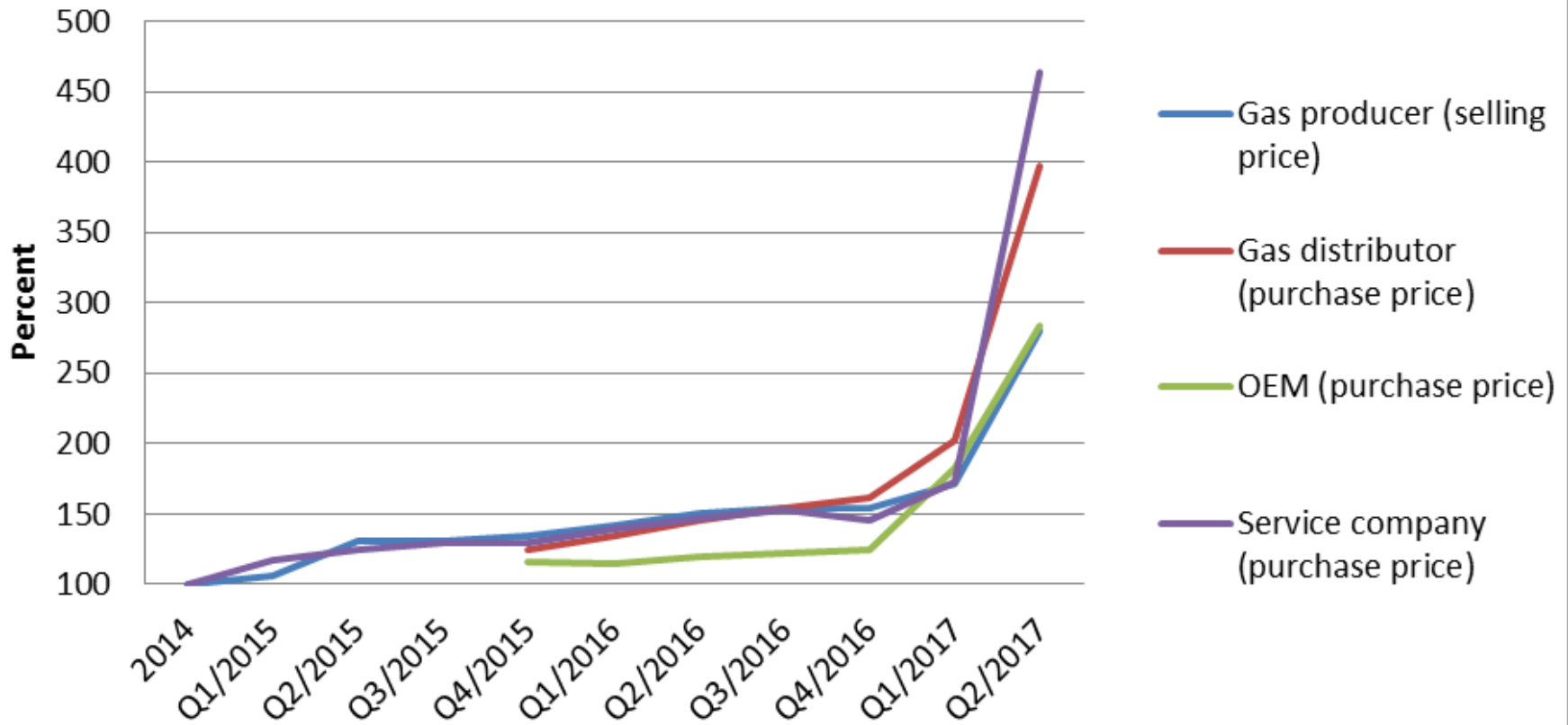
(ii) de minimis:

The yearly de minimis threshold of 100t CO₂eq bulk HFCs is also applicable to to equipment

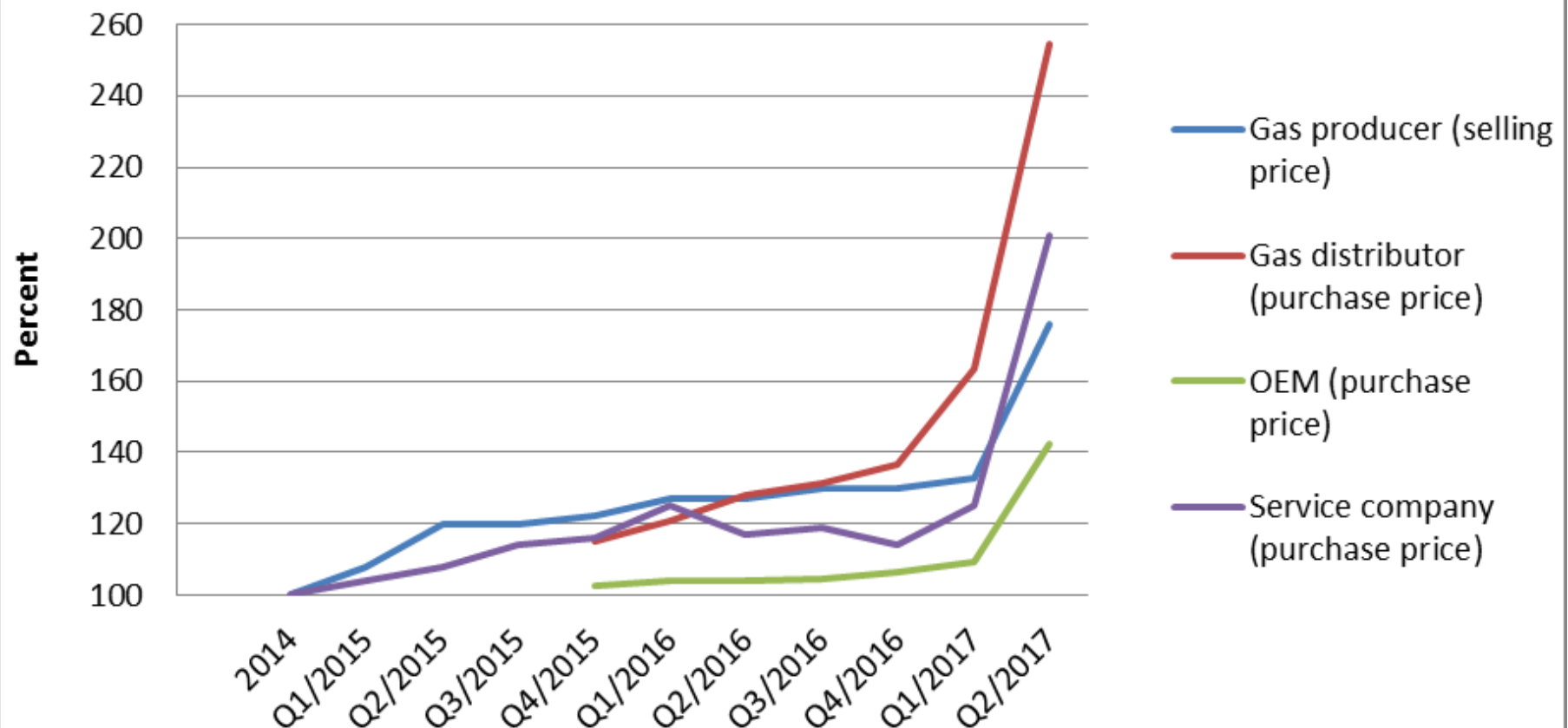
HFC Prices



Price Index (2014=100) of R404A on different levels of the supply chain (2014-Q2 2017)



Price Index (2014=100) of R134a on different levels of the supply chain (2014-Q2 2017)



Enabling activities

- **Monitoring and reporting: Introduction of customs' codes for HFCs and HFC blends**
- **Avoiding stocks/future servicing needs with high GWP HFCs**
- **Updated of safety standards for flammable, toxic and pressurised refrigerants**
- **Training needs**