

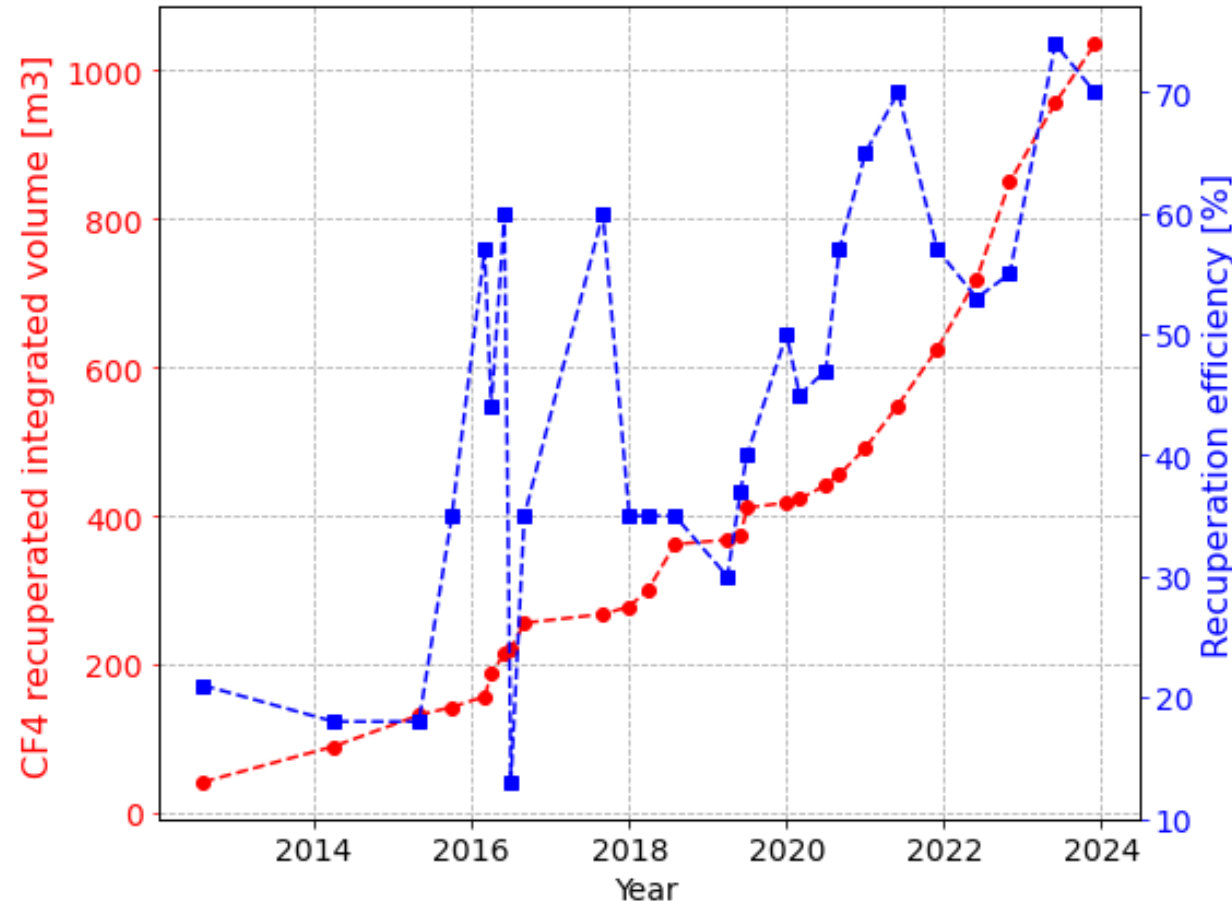


CMS RECOVERY SYSTEMS

M. C. Arena, A. D'Auria, R. Guida, B. Mandelli

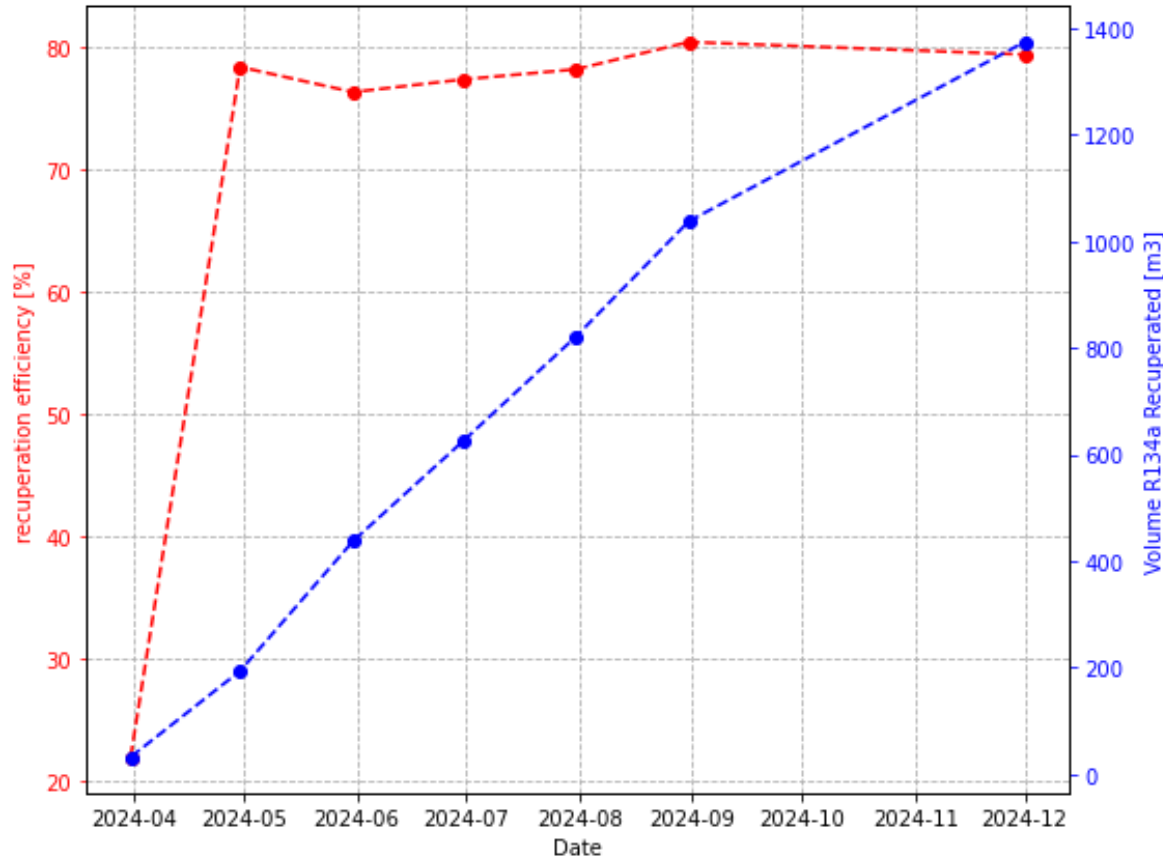
CMS Gas System Status meeting, 17/02/2025

CF₄ recovery plant Recuperation summary



- **Efficiency** mean value: 70% in the period January-November 2024
- In 2024, out of 495 m³ of CF₄ injected into the mixer, 290 m³ were recovered CF₄ (60%)
- 2024 → 8600 tCO₂e and 47 kCHF saved

RPC R134a RECUPERATION Status & Plans



- Since April 2024 stable **efficiency higher than 80%** with around **5000 ppm iC4H10** in the recovered R134a
- All the recuperated gas is currently **reinjecting into the RPC mixer**
- **Slope variation** between September and November due to **RPC gas loss increase** → less R134a recovered but stable efficiency!

Conclusions

- **CSC - CF₄ Recuperation Plant**

- Recuperation efficiency ~ 70% reached in the last year (after completion of intense R&D activity done in 2020-2021)
- Plant operational at design condition recuperation + injection of recuperated CF₄
- In few occasions recuperated CF₄ allowed to overcome problems with standard CF₄ fresh supply

- **RPC - R134a Recuperation plant**

- Recuperation efficiency ~ 80%
Recuperated R134a of good quality

- Some upgrades done during YETS → studies will be performed during RUN