

METRO

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METRO – FEP THE CALL OF THE EAST

November 20, 2018

Riva del Garda, Atmosphere Europe Conference 2018

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CO2 REDUCTION STRATEGY 2030.

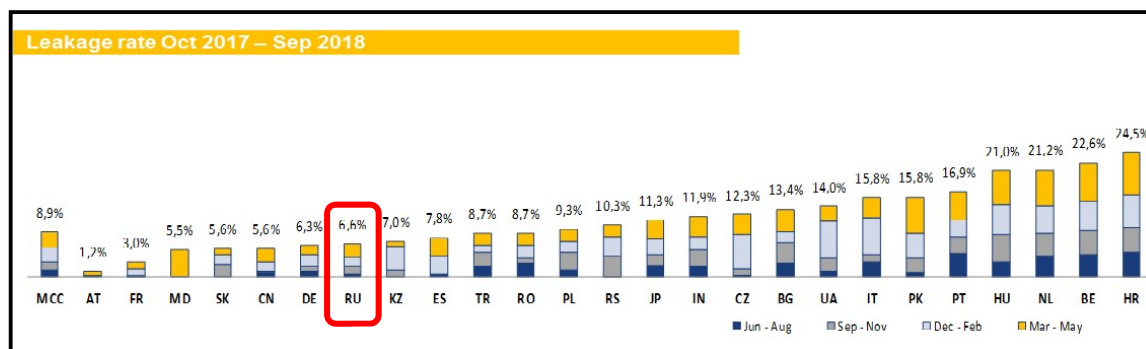
To achieve our Climate-Protection-Target METRO focuses on:

- (1) Energy-Efficiency Investments (ESP) & Behavior (EAP)
- (2) F-Gas Exit Program – FEP
- (3) Renewable Energy Production-Project Smaragd & Rubin
- (4) GREENSTORE + ZEUS INITIATIVE (ZERO Emission Store)



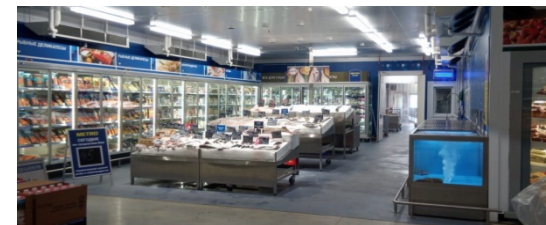
F-GAS EXIT PROGRAM 2030.

- New Store Openings + refurbishments: **only NatRefs!**
 - acc. life cycle of existing cooling equipment **((TC)-CO₂**, propane, ammonia)
 - so far technical possible; M&R must be secured - otherwise GWP <2.500
 - Tailor-made solutions for existing equipment in proper technical conditions (=drop-in`s with GWP < 2.500)
- full contribution of the refrigeration resolution 10/2016 from „CGF“
- Benchmark: Leakage(rate)



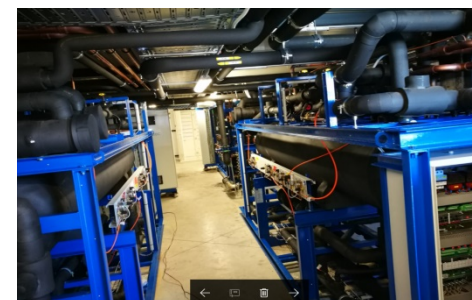
CALL OF THE EAST.

- **Russia:** 92 Stores + 1 Storage
 - 2 TC systems MOS Aparinki + Odintsovo in 2018
 - 24 SC systems NSO + Remo's: start with MOS 2015
 - 61 HFC (R 134A/R 404A)
 - 5 R22 => 2019 exchange to TC
 - 1 NH3 storage Noginsk
- **China:** 93 Stores
 - 1 TC system Beijing IV in 2018
 - 44 SC systems: start with Weifang 2014
 - 48 HFC (R 134A/R 404A)
 - 4 R22 => 2020ff. exchange to TC/SC to the lifecycle
- closed cooling shelves/doors & cabinets in progress



ECHO FROM THE EAST–FEP PROGRESS.

- **Status:** 8 ejector* TC/ 65 TC/ 106 SC+others
 - 10/17 ZEROone St. Pölten*/AT
 - ejector TC in 09/18 Sofia*/BG + 05/18 Opole*/PL
 - New TC e.g. in Neustrelitz/DE + 9 in France
- **Outlook:**
 - accelerate TC- Russia (6 stores)
 - TC in Rödelheim*/DE; Czestochova*/PL + Russe*/BG + 3 sites RO + San Donato*+ 2 sites Italy
 - Strong focus to retrofit solutions (R 448A)
 - Closing of cooling furnitures (RU + DE)
 - Exchange of DC doors – „Thermofrost“ project, pilot Nuremberg/DE successfully





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