EPEE roundtable , October, 18th , 2017 Brussel

Report for T&D Europe, F. Trichon , WG GFS

# executive summary

## concerning SF6

* EC is working currently a lot on SF6 but it is just to collect information
* Philipp Owen confirmed that SF6 is not their priority
* he also confirmed that a report must be issued by June 2020

## concerning F-Gas regulation and EC

* 2022 will be the next revision of the regulation
* EC didn't identify the standards as a possible road block for Regulation and HFC phase down. they are working to identify actions
* there is a label in preparation which will take into account the balance Energy efficiency/GWP

## concerning HVACR industry

1. new equipment / new gas
   * significant progress has been made on equipment that can be able to use new gases with low GWP
   * industry will face for next year a shortage of the new gases
   * this can jeopardize the progress already done
2. existing equipment
   * major issue to involves the contractors (they account more than 100 000)
3. reclaim/recycling
   * there is still a lot to improve reclaiming
   * there are in some countries regulations that prevent reclaiming

## The message about MV&HV industry I delivered to the community

* our equipment are critical for energy delivery
* our industry has worked and invested a lot these past years

reduction by 200% of leakage during manufacturing process

we reached an asymptote for emission during life as well as manufacturing process

* our equipment are build to last 30 to 50 years

as a consequence, a large part of the equipment in the network where designed when the GWP of SF6 was not known and no particular caution where made to limit the losses

the operators of these equipment are facing other critical issues currently such as grid stability and cannot afford the replacement of these equipment.

* our industry is just beginning the process to find alternative and it will be a long journey

# attendee

EPEE is an association representing the industry of heat, ventilation, Air conditioned, refrigerant. **a list is attached but showing partly all the participants**

among them Vending machine, mobile AC, heating industry, manufacturer of equipment (Toshiba)

in particular, there was 3 people from EC

* + Philipp Owen (head of unit climate finance-mainstreaming-Montreal protocol)
  + Cornelius Rhein (fluorinated gas specialist)
  + Arno Kaschl (fluorinated gas specialist)

no people from 3M (the woman from the list also participated to ECOFYS workshop)

# EC introduction (Philipp Owen-PO)

* PO said they are following the HFC phase down and want to push the process. his presence was also to see how EC can help.
* he is thinking that globally HFC phase down is working well
* EC is counting on mass production to reduce the cost of the product
* He said F-Gas regulation has not a prohibition purpose
* EC didn't identify that standards could be a road block. for example a large majority of alternative to HFC are flammable or slightly flammable and he encourages manufacturers and users to review the standards to allow the use of alternatives.
* 2022 will be the next regulation revision
* for the next coming year he will focus on enforcement of regulation
* there was a question about BREXIT : PO answered there is a text in preparation which is not finalized and this will save the interest of the HVACR industry

# EPEE presentation "GAPOMETER"

I have asked for the presentation which is focused around phase down of HFC .He shows that even with a huge increasing market, they achieved a reduction of CO2eq from 200 Mtonne in 2014 to 80Mt in 2017. their action plan is framed around 3 points :

## New equipment

* success for small equipment (Mobile AC which contains les than 3kG of HFC) but difficulties for installation using more than 3kg
* dedicated policy targeting supermarkets
* EPEE encourages OEM & users to use low GWP gas but as some of them have flammability properties, there is a need for training and safety

## existing equipment

* leakage

it seems the progress to be made now are very small

* retrofit

for the R404a

## Use reclaimed gas

* when there is retrofit, the contractors didn't recycle the gas
* In France , the regulation is forbidding to reuse a gas elsewhere . the gas must be reuse at the same addressee

## follow up of the phase down of HFC

* target challenging : for 2018 to 2021 achieve 1/3 reduction of CO2eq reduction
* risk of shortage for new low GWP

## in conclusion,

* **there is** a balance between Energy efficiency and the race to low GWP

EC (PO) is saying that there is a label in preparation which will take into account the balance Energy efficiency/GWP

* flammable alternative is a subject to be addressed
* contractors and supply chain are the key topics to keep on reducing HFC
* not sure if the industry will be able to continue the phase down

EC (PO) said there is no discussion to have and the targets must be reached

# round table

## gas supplies

there is a risk of shortage for the new refrigerants

## vending machines

* very few new equipment up to now
* competition between CO2 and Hydrocarbon (propane, butane) and seems that the second one takes the lead.

## installers (AREA cooling solution)

* contractors are important (more than 100 000 in Europe)
* campaign to improve the skill and knowledge about new solution
  + communication
  + prepare guide

## mobile AC

* already new equipment in service
* with EV new challenge because the battery also must be cooled !

## Toshiba (OEM)

shortage of gas : is there an emergency plan ?

EC said that there is no emergency plan

## T&D Europe :

### my message

I made a short introduction of T&D Europe and our industry and equipment , describing what is SF6

* our equipment are critical for energy delivery
* our industry has worked and invested a lot these past years
  + reduction by 200% of leakage during manufacturing process
  + we reached an asymptote for emission during life as well as manufacturing process
* our equipment are build to last 30 to 50 years
  + as a consequence, a large part of the equipment in the network where designed when the GWP of SF6 was not known and no particular caution where made to limit the losses
  + the operators of these equipment are facing other critical issues currently such as grid stability and cannot afford the replacement of these equipment.
* our industry is just beginning the process to find alternative and it will be a long journey

### answer of EC (PO)

* EC is working currently a lot on SF6 but it is just to collect information
* Philipp Owen confirmed that SF6 is not their priority for the moment
* he also confirmed that a report must be issued by June 2020

# conclusion

this kind of round table will happen twice a year.

the objective is to get rid of very high GWP refrigerants

# other information

there is a set of standard **EN378** describing the reclaiming, an recycling process . perhaps good to read

List of attendees

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