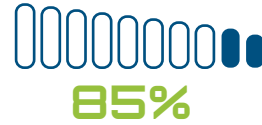


## WHAT IS THE KIGALI AMENDMENT?

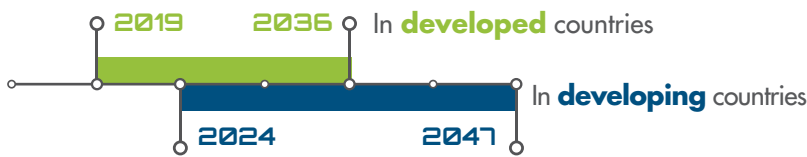


Agreed to on October 15, 2016 at the **28<sup>th</sup> Meeting of the Parties to the Montreal Protocol**.



Sets out an HFC phasedown that **reduces consumption by 85%** in CO<sub>2</sub> tons equivalent (with some variations)

## THE TIMING



## MONTREAL IS NOT PARIS



The **Paris Agreement** on Climate Change has now entered into force. Its aim is to limit "global" temperature rise to 2°C. Both agreements share the same goal but do not overlap.

## 2 INTERPRETATIONS

There are two interpretations of the effect of the Kigali Amendment on the climate impact of HFCs. So which one is correct?

### IT'S ALL ABOUT THE FUTURE

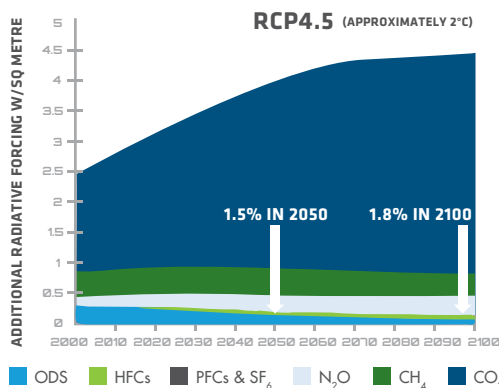
Current consumption of HFCs has only a small future effect and so the answer depends on the volume of HFCs used in the future

1

### THE IPCC SCENARIOS



THE HFC CONTRIBUTION TO THE OVERALL TEMPERATURE RISE IS ABOUT **0.04°C**

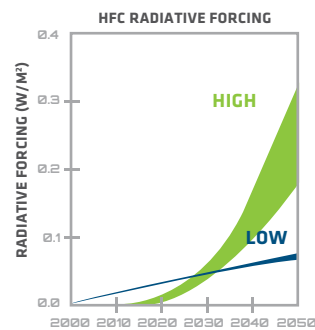


The scientific basis for the Paris Agreement is the 5<sup>th</sup> Assessment Report of IPCC. This used scenarios known as Representative Concentration Pathways (RCPs)

RCP scenarios are based on expected ranges of economic growth over the next century and show plausible changes in the future climate impact of all greenhouse gases. Climate impact depends on the concentration of GHGs in the atmosphere, which depends on long term emissions. RCPs were developed in 2010 by teams of scientists from 13 major "think tanks" throughout the world.

### THE VELDERS SCENARIOS FOR HFC FUTURE EMISSIONS GROWTH

2



HFC RANGE: Developing countries (A5), Developed countries (non-A5)

The projected 0.5°C contribution from HFCs comes from a 2009 paper by Velders et al.

Velders has published several scenarios for HFC emission growth and these have been used by some as a basis for the future climate impact of HFCs. The 2009 paper predicted an exponential growth in HFCs that, extrapolated, would result in an additional 1 W/m<sup>2</sup> by 2100.

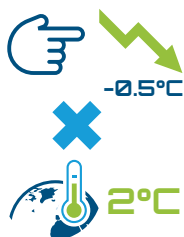
THIS IS EQUIVALENT TO ABOUT A **0.5°C** TEMPERATURE RISE.

## CONCLUSIONS



### SAME WEIGHTS & MEASURES

The Kigali Amendment will remove most of the Climate Impact of HFCs but the **maximum benefit to global temperature** is 0.04°C based on an IPCC RCP



### NO EXCUSES

A claimed **reduction of 0.5°C is not part of the 2°C envisaged** by the Paris Agreement. Full implementation of the Paris Agreement is still required, including **Energy Efficiency improvements facilitated by low GWP alternatives to HFCs**



### AN IMPORTANT STEP

Irrespective of the HFC forecasts, the Kigali Amendment is an extremely important step in **reducing future HFC emissions** and should be **fully supported and implemented**.