

Global Fluorocarbon Producers Forum

■ Who We Are

- Advocate for sensible reductions in the use of high global-warming fluorocarbons, especially in emissive applications
- Preserve choice for consumers and manufacturers,
- Enable a practical timeline for adoption of replacement technology

■ Positions

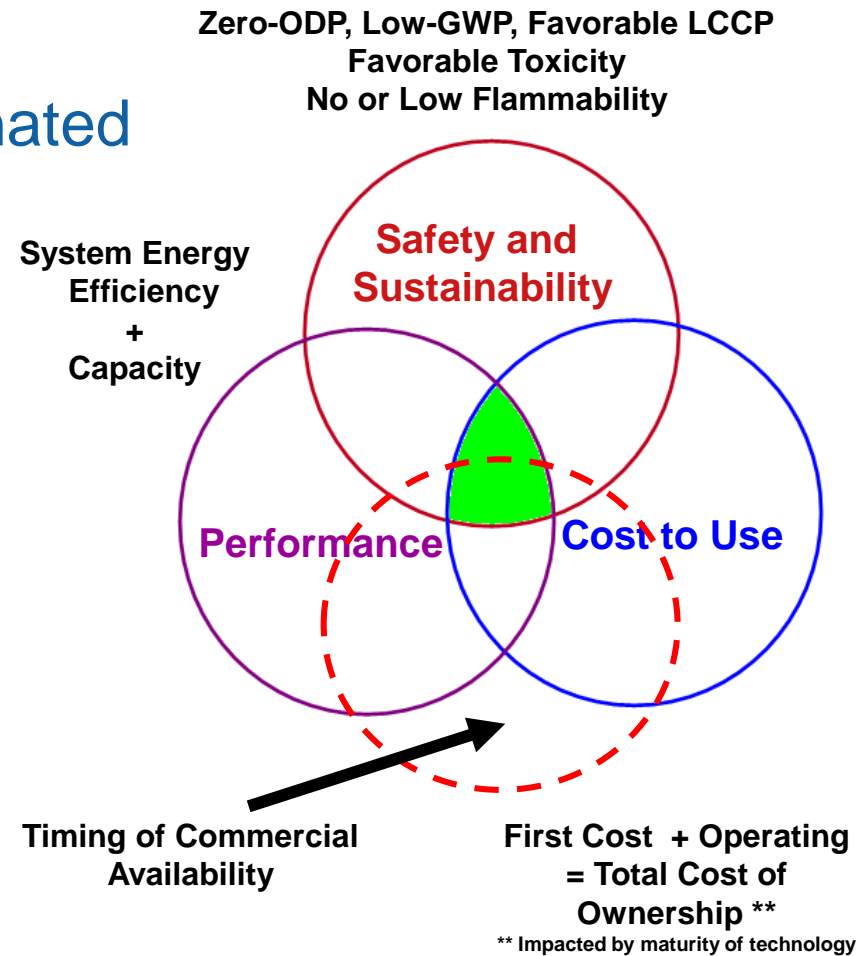
- HFC Amendment
- Low GWP Materials
- Use of ODSs as Feedstocks
- Illegal Trade



www.gfpf-forum.org

Fluid Choice and Value

- Options
 - Fluorinated and Non-fluorinated
- Value of Fluorocarbons
 - Quality of Life
 - Unique Properties
 - Viability in Application
 - Environmental and Safety Properties
- Criteria for Selection
 - Many Factors
 - Energy Efficiency Critical



Fluorocarbon Low-GWP Solutions

Many commercial and more under development

Application	Current HFC*	GWP of Current (AR4)	Low GWP Solutions	GWP Reduction
Automotive Air Conditioning	HFC-134a	1430	HFO-1234yf, R-445A	90-99+%
Residential & Light Commercial Air Conditioning	R-410A	2088	HFC-32, R-446A, R-447A, R454B	72-78%
Commercial Chillers	HFC-134a	1430	HFO-1234yf, R-450A, R-513A HFO-1336mzz, HFO-1233zd	58-99+%
Domestic Refrigeration	HFC-134a	1430	HFO-1234yf, R-450A, R-513A	55-99+%
Commercial Refrigeration	R-404A HFC-134a	3922 1430	R-448A, R-449A, R-449B, R-452A HFO-1234yf, R-450A, R-513A	45-65 % 55-99+%
Insulating Foam	HFC-152a HFC-134a HFC-245fa HFC-365mfc	124 1430 1030 794	HFO-1233zd, HFO-1234ze HFO-1336mzz	90-99+%
Aerosols	HFC-152a HFC-134a HFC-227ea	124 1430 3220	HFO-1234ze	90-99+%
Solvents	HFC-4310mee	1700	HFO-1233zd	90-99+ %

*Some ODS materials still used