

# Welcome to the RAD Working Lunch!

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# Agenda



- **Trends & Opportunities**
  - RAD partner achievements & trends
  - National & international efforts to curb HFCs; how RAD partners fit in
  - Challenges & opportunities for RAD partners
- **Group Discussion:**
  - Increasing RAD Program & Partner Benefits



# **RAD Partner Achievements & Trends**

# RAD Program Growth



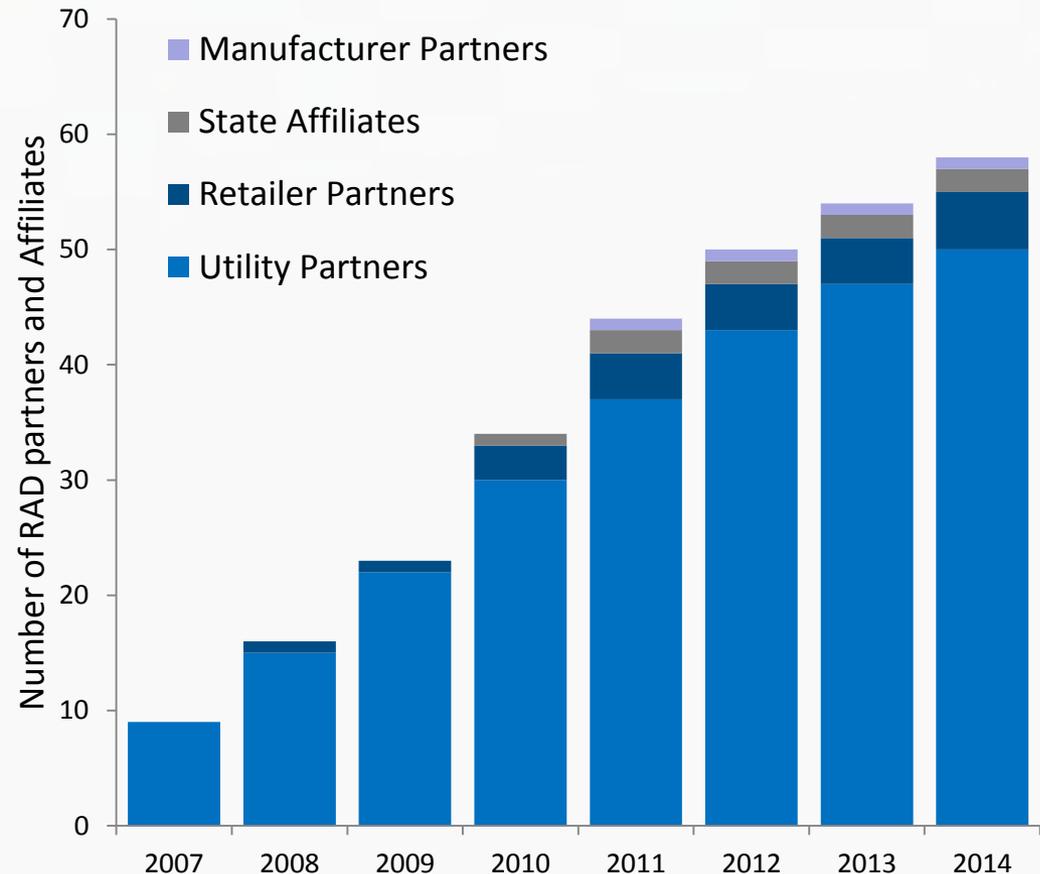
## New RAD partners:

### 2013:

- ❖ Gulf Power
- ❖ Xcel Energy

### 2014:

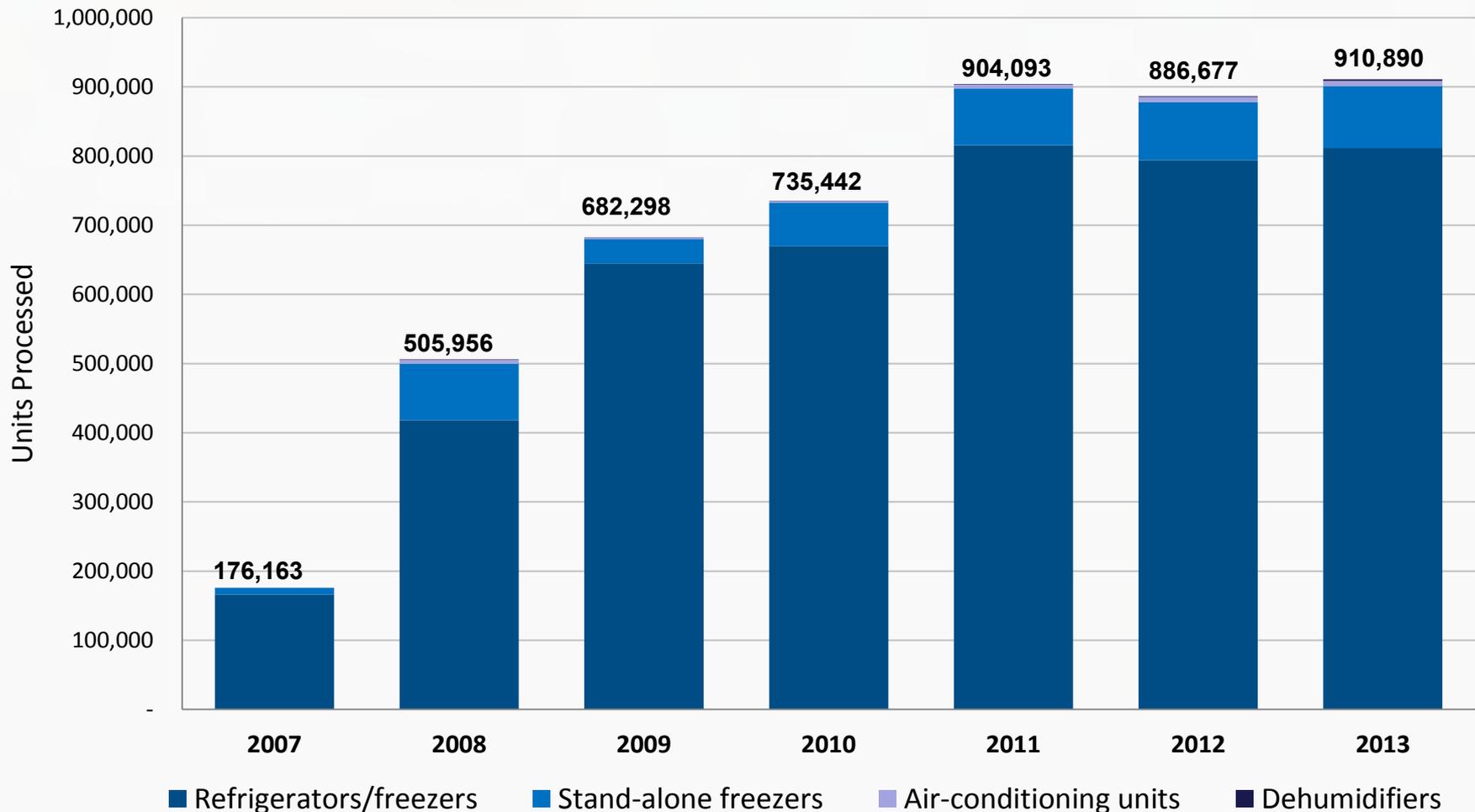
- ❖ BSH Home Appliances Corporation
- ❖ Liberty Utilities
- ❖ Holland Board of Public Works



# 2013 Partner Achievements: Appliances Processed



5x increase in number of units processed since start of program

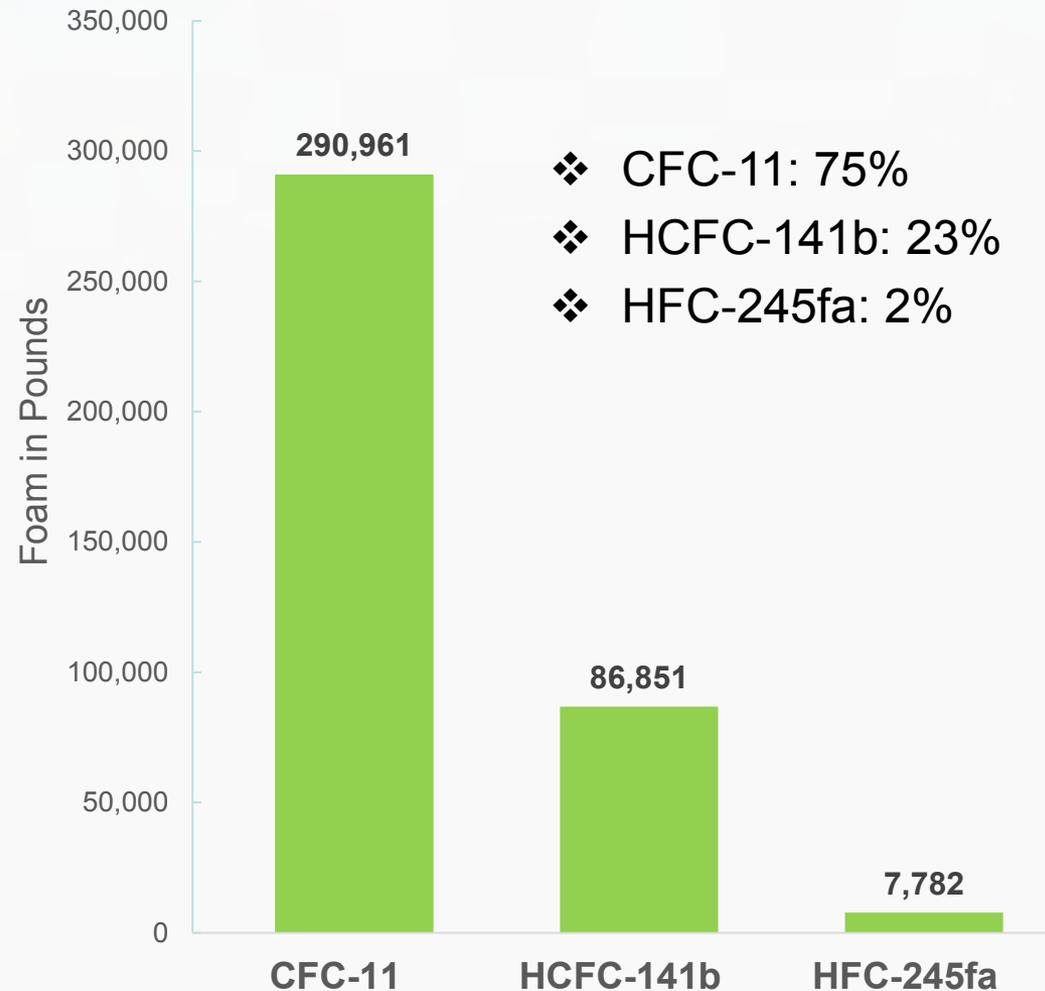


# Partner Achievements: Foam Recovery



- 385,600 lbs. of foam recovered  
=680,000+ MTCO<sub>2</sub>eq. emissions avoided  
=GHG benefits of removing 143,000+ passenger vehicles from the road for a year

Foam Recovered in 2013





# **National & International Efforts to Curb HFCs... And How RAD Partners Fit In**

# Increasing Focus on Addressing HFCs at Home & Abroad



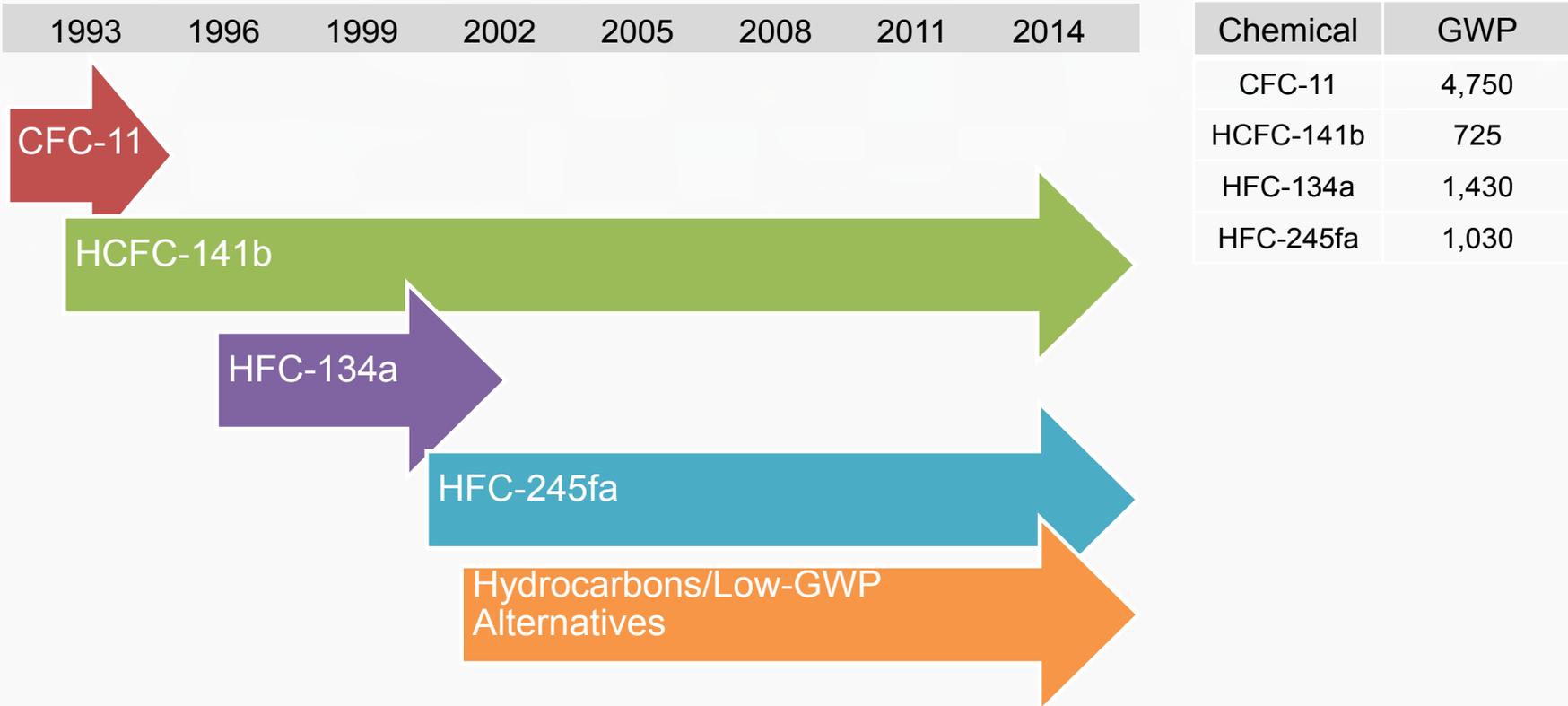
- President's Climate Action Plan
  - ❖ "Curbing Emissions of HFCs"
- New Executive Actions:
  - ❖ Promote use of HFC alternatives
  - ❖ Encourage private sector investment in low-emissions technology
  - ❖ Invest in new non-HFC technologies
- International Efforts:
  - ❖ North American Proposal to amend Montreal Protocol to phase down HFCs
  - ❖ Clean Air and Climate Coalition (CCAC) to Reduce Short-Lived Climate Pollutants

**RAD partners can contribute by reducing HFC emissions of refrigerant & foam**

# We will see more HFC (& HCFC) foams in disposed units



## Blowing agents used in refrigerators manufactured in or imported to the U.S.



- **An 18-yr old unit may contain CFC, HCFC, or HFC foam**
  - All of these have high GWPs
  - Recovering these foams will lead to significant GHG savings

# Foam Recovery Practices



- Common foam recovery practices among RAD partners:
  - Foam type most often identified based on refrigerant type; some room for error
  - CFC-11 recovered for reclamation or destruction
  - Some recovery of HCFC-141b (about 50%)
  - Limited recovery of HFCs



- Challenge
  - How to incentivize & increase HCFC & HFC foam recovery?
- Opportunity
  - Technologies exist to identify & recover all foam BA types
  - Climate benefits can be significant...

# Climate Benefits of HFC Foam Recovery



- Proper disposal of **1 refrigerator** containing HFC-245fa foam avoids emissions of nearly **1 MTCO<sub>2</sub>eq**
  - Foam recovery accounts for +50% of GHG savings
- In 2013, if foam were properly recovered from all 11.1 million refrigerators disposed in the U.S., **7 million MTCO<sub>2</sub>eq** would have been avoided\*



\*U.S. EPA estimate, assuming 95% of units reaching end-of-life contain HCFC-141b while the remaining 5% contain HFC-134a, and that blowing agent can be recovered from each unit at a recovery efficiency rate of 95%.



# Group Discussion

# Group Discussion Guidelines



- Share experiences with other RAD partners and recyclers in an active, facilitated dialogue
- Be willing to learn from each other; keep an open mind
- Please identify yourself when speaking

# Goals of Today's Discussion



## We want to hear from you!

- Identify ways your program can do even more to reduce GHGs through:
  - Recovering more HCFC & HFC foam
  - Increasing the number of units collected
- Identify how the RAD program can help
  - Tools, resources, communications
  - Fora for sharing/learning
- Identify how RAD can increase partner benefits
- Other?

# For more information



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