Energy & Store Development Conference

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GreenChill Annual Recognition

Tom Land









GreenChill Advanced Refrigeration Partnership Program Update





GreenChill and Industry Potential

GreenChill partner companies account for about 29% of all stores

If every U.S. supermarket met GreenChill Partners' average emission rate (12.9%), the supermarket industry would:

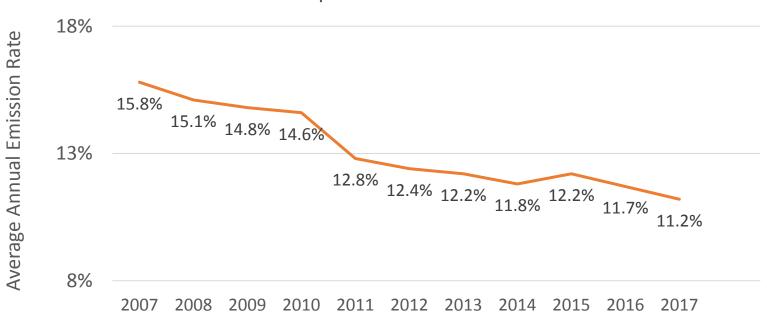
- Reduce annual refrigerant emissions by 30 million metric tons carbon dioxide equivalent
- Save \$212 million in annual refrigerant replacement costs



- ★ Platinum-Level Certification
- ★ Gold-Level Certification
- ★ Silver-Level Certification
- GreenChill Partner Store

Refrigerant Emissions Management – Leak Reductions





GreenChill Partner Emissions Reductions

In 2017, about 75% of reporting partner companies reduced their emissions rate since joining the partnership:

- 3 have reduced their emissions rate by at least 60 percent
- 8 have reduced their emissions rate by at least 30 percent
- 11 have reduced their emissions rate by at least 20 percent

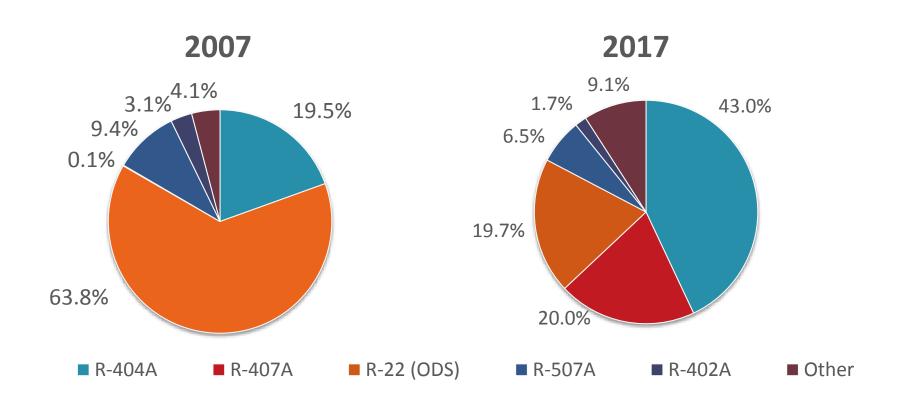
In 2017, 11 partners achieved an annual emission rate below 10 percent

A Changing Industry

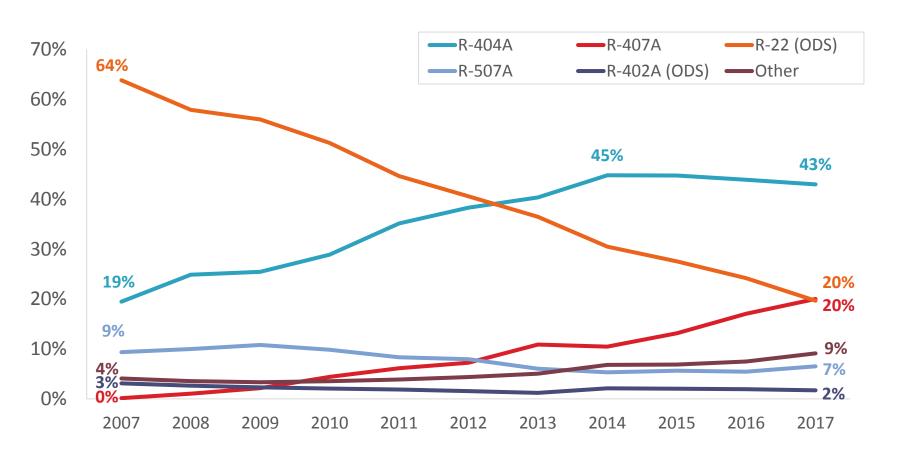
CFCs	Phased out
HCFCs	Being phased out; declining in use Mainly R-22 GWP 1820 ODPs
HFCs	Declining in use R-404A and R-507A common Higher GWPs No ODPs
Lower-GWP HFCs	Increasing in use R-407A common Low GWPs No ODPs
Other Refrigerants	Emerging technologies CO ₂ , Ammonia, HFOs, Hydrocarbons Lower GWPs No ODPs

GreenChill Partnership Installed Refrigerants

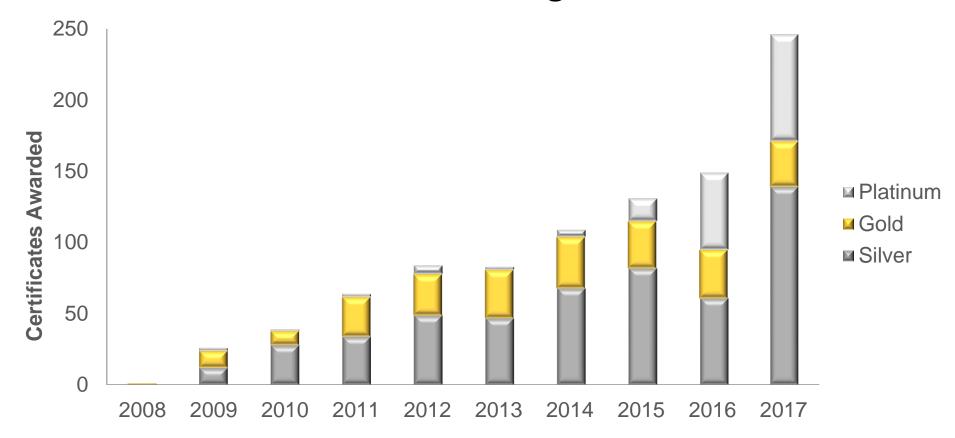
Commercial Systems



Installed Refrigerants Over Time



Store Certification Program Growth









GreenChill Advanced Refrigeration Partnership Annual Achievements



Superior Goal Achievement

Partners that set a corporate-wide goal for refrigerant emissions (for commercial systems) are eligible for GreenChill recognition

Goal must be below leak rate achieved the year before

Many GreenChill partners are demonstrating continuously reduced emissions.

Four (4) partners achieved their 2017 emissions rate goals. They receive the "Superior Goal Achievement" recognition.

They are....

Superior Goal Achievement









Exceptional Goal Achievement

Each year partners have the option to set a "stretch" goal to even further reduce refrigerant emissions

One (1) GreenChill partner company achieved their "stretch" goal for reducing emissions....

Superior Goal Achievement



Most Improved Emissions Rate

Two "Most Improved Emission Rate" categories:

- 1) Compared to last year's emissions rate
- 2) Compared to company's baseline emission rate when they joined the GreenChill Partnership

Most Improved Emissions Rate





Year-to-Year

Over Baseline Year

Best Emissions Rate

Two "Best Emission Rate" categories for the lowest refrigerant emissions among all sources for:

- Small/Independent partners
- 2) Retail chain partners

Achieved incredibly low corporate emission rates

Best Emissions Rate





Retail Chain

Small/Independent

Best of the Best Best Certified Store

- Best GreenChill Certified Store
- Notable demonstration of innovative advanced refrigeration technology
- This year we honor ...

Best of the Best



Kinston, NC

Store Certification Excellence

Most GreenChill-Certified Stores

Two "Store Certification Excellence" categories:

- 1) <u>Supermarket company</u> with the most GreenChill store certifications in the past year
- Systems manufacturer with the most GreenChill store certifications in the past year

Store Certification Excellence







Store Re-Certification Excellence Consecutive Re-Certifications

 "Store Re-Certification Excellence" recognition goes to stores achieving GreenChill certification in five consecutive years

Five (5) stores reached this achievement

Store Re-Certification Excellence





Fresno, CA





Hillsborough, NJ



Brooklyn, NY

Distinguished Partner

 Extraordinary leadership and initiative to further the GreenChill mission in the past year

One supermarket partner

Distinguished Partner



General Appreciation from GreenChill

- Great partners and supporters!!!
- All are playing a role through data reporting, store certifications, refrigerant management plans, webinar presentations, and input on GreenChill programs and resources.
- Providing wonderful industry insights and showing dedication.

Thank you!







Thank You

- Scott Martin, Hillphoenix
- Ted Gartland, E. Gartland & Associates
- Maureen Beatty, National Refrigerants
- Laurie Gethin, FMI

