



GreenChill Partnership



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Agenda

- ▶ GreenChill Overview
 - ▶ 3 programs to eliminate refrigerant emissions from supermarkets
 - ▶ Future plans
- ▶ Partners: what they achieved & what they received
 - ▶ Supervalu – George Ronn
 - ▶ Fresh & Easy – Steve Hagen
 - ▶ Sprouts Farmers Market – Jerry Stutler



**GREENCHILL'S MISSION:
REDUCE REFRIGERANT
EMISSIONS**

**Corporate Emissions
Reductions Program**

GreenChill Partners
measure emissions and
set annual goals.

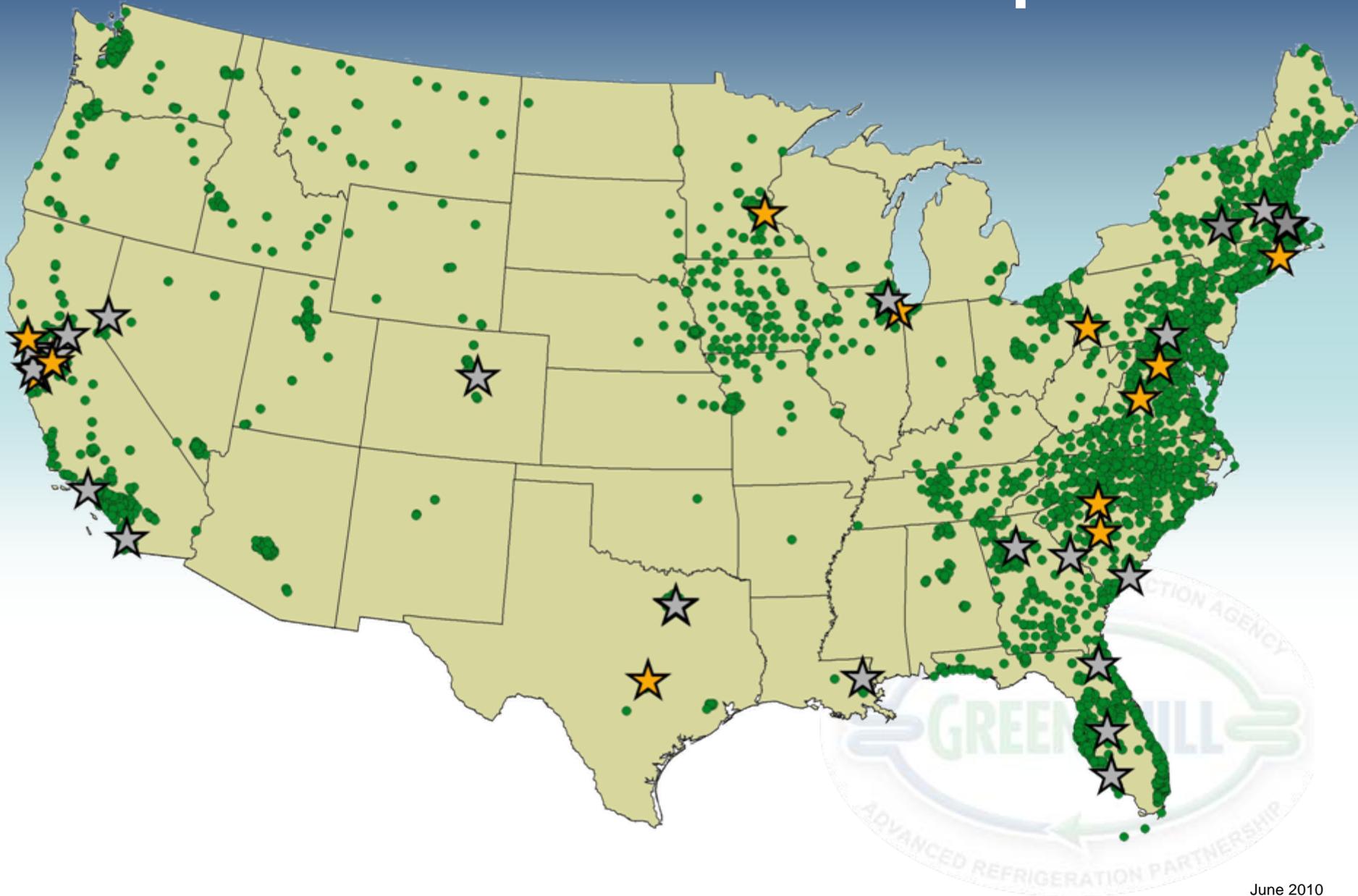
**Store Certification
Program**

Awards GreenChill certification to
stores for achieving emissions
reduction targets.

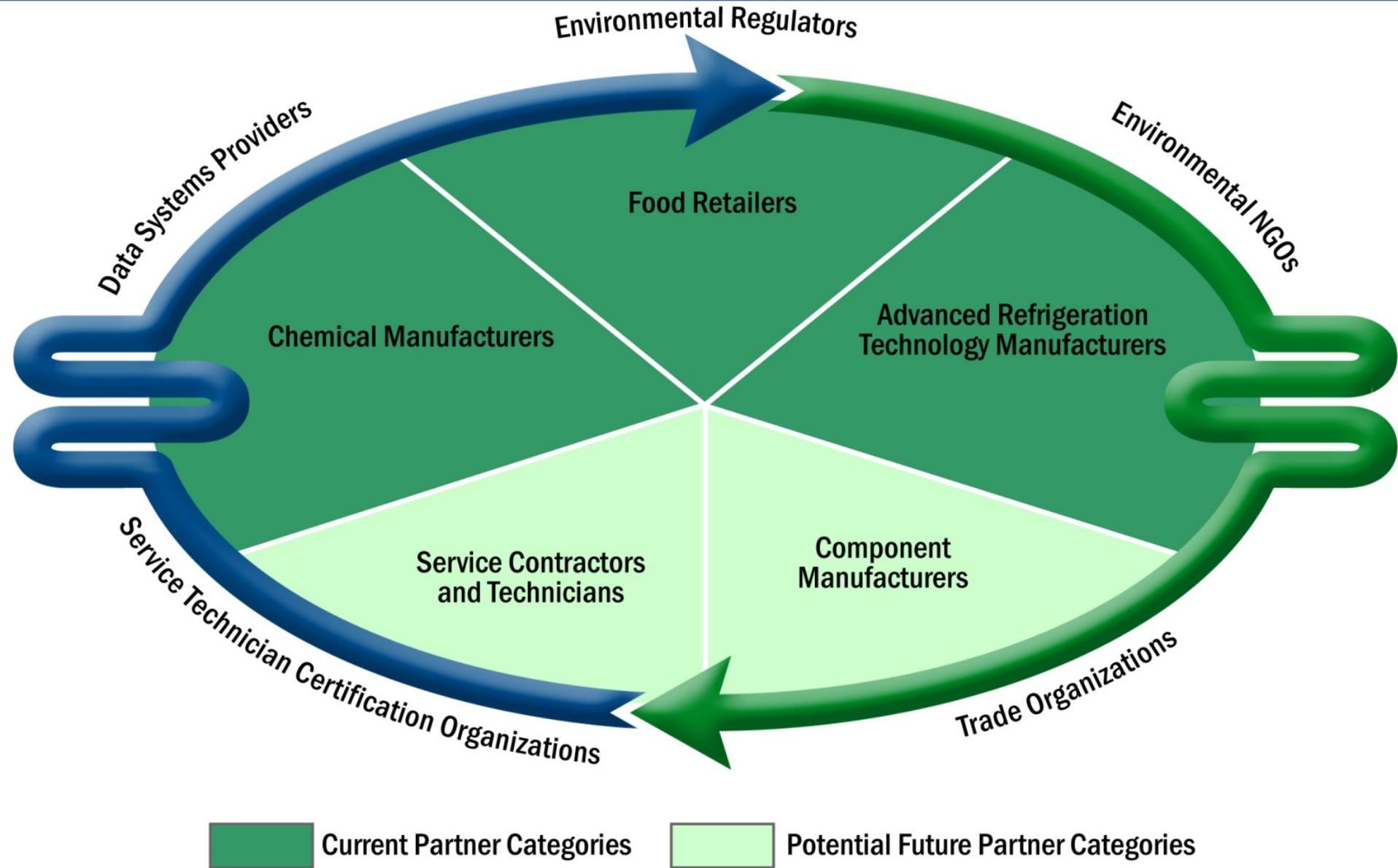
**Advanced
Refrigeration
Program**

Promotes the use of advanced
refrigeration technologies,
strategies, and practices.

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GreenChill's Stakeholders



The Future: Low GWP Refrigerants

- ▶ GreenChill Mission: To reduce refrigerant emissions from supermarkets and decrease their impact on the ozone layer and climate change
- ▶ Motto: reduce refrigerant charge, reduce leaks, use lowest GWP refrigerant possible for your needs
- ▶ Makes sense for the environment and your bottom line



Best Practice Guidelines & Webinars

- ▶ Advanced Refrigeration Technology Guidelines
- ▶ Leak Prevention & Repair Best Practices Guideline
- ▶ Monthly Webinar Series



Continue Store Certification Program

- ▶ Standards are good; process runs well
- ▶ Re-certifying stores in year 2
- ▶ Continuing to collect data
- ▶ Moving to webforms; database access





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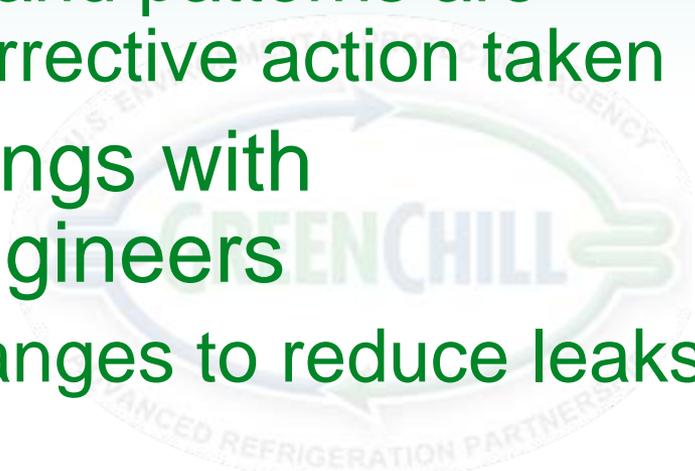
Neighborhood Market

Steve Hagen



Fresh & Easy Neighborhood Market

- ▶ Refrigerant management includes sophisticated data management system
 - ▶ Track refrigerant usage – techs don't get paid for refrigerant until leak & repair are in system
 - ▶ Auto-generated reports on usage, top stores, lowest stores, etc.
 - ▶ Data is evaluated monthly and patterns are evaluated, discussed, & corrective action taken
- ▶ Annual refrigeration meetings with technicians, designers, engineers
 - ▶ Discuss leaks / design changes to reduce leaks



Fresh & Easy Neighborhood Market

- ▶ Implemented GreenChill best practices
- ▶ Redesigned prototype to eliminate 43 potential leak fittings
- ▶ Maintaining a 10% leak rate - goal is 7%
- ▶ Install leak detection equipment in every store
 - ▶ Plan to import a more reliable leak detector from Europe



Fresh & Easy Neighborhood Market

- ▶ Installed our first CO2 store – GreenChill Silver Certification Award
- ▶ Received 2nd Silver Award for conventional 404A store
- ▶ Changed prototype to use hybrid microchannel condenser to reduce charge
 - ▶ Expect all stores built after mid 2011 to achieve GreenChill Silver or better
- ▶ Changed prototype refrigerant from R404A to R407A





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Jerry Stutler



Sprouts Farmers Market

- ▶ GreenChill's Installation Leak Tightness Guidelines
 - ▶ Reduced emissions during & after installation
- ▶ GreenChill Store Certification Program
 - ▶ Re-examined initial store design
 - ▶ Re-examined system engineering
 - ▶ Ensuring the lowest refrigerant charge design while keeping equipment cost & energy efficiency at the forefront



Sprouts Farmers Market

- ▶ Included GreenChill's installation & certification requirements in specifications
 - ▶ Raised the bar for all refrigeration installation companies
 - ▶ Level of quality & pride in workmanship increased tremendously
 - ▶ Installing refrigeration contractor now assesses the most efficient & shortest runs for piping in an effort to reduce refrigerant charge
 - ▶ Level of competitiveness between installing refrigeration companies to do their best & to help achieve GreenChill Certification



Sprouts Farmers Market

- ▶ GreenChill partner commitment = setting annual emissions reduction goal
 - ▶ Always wanted to keep leaks & loss to a minimum – but a goal gives a true incentive
 - ▶ Pride among other retailers in ensuring we are doing our part to protect the environment
 - ▶ Competition – want to be better than counterparts
- ▶ Being a GreenChill Partner & achieving GreenChill Store Certifications brings recognition/publicity
 - ▶ EPA publicity for carbon footprint reduction efforts



Sprouts Farmers Market

- ▶ GreenChill's Quarterly Partner Meetings & Monthly Webinars
 - ▶ Valuable information on refrigeration systems and innovations
 - ▶ Used to be almost unheard of for competing supermarkets to share ideas & experiences
 - ▶ GreenChill opened lines of communication between competitors both in retail and manufacturing





GreenChill Advanced Refrigeration Partnership



SUPERVALU®

George Ronn



Supervalu

- ▶ Performance validation
- ▶ GreenChill Store Certification
- ▶ Breaking the 10% emissions rate range
- ▶ GreenChill team support and best practice sharing
- ▶ Inside connection at EPA



For More Information

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