



# NASRC 2020 Annual Report

The North American Sustainable Refrigeration Council

[WWW.NASRC.ORG](http://WWW.NASRC.ORG)



NORTH AMERICAN  
**Sustainable  
Refrigeration  
Council**

## A LETTER FROM OUR EXECUTIVE DIRECTOR



We all had plans at the beginning of last year, but it turned out 2020 had plans for us all. It was a year unlike any other in our lifetime. No doubt we all experienced unprecedented challenges that disrupted every aspect of our lives. Yet where there are challenges, there are also opportunities. And as an organization founded with the specific purpose of overcoming obstacles, we were ready to rise to the occasion.

NASRC's vision is to create a more sustainable future for supermarket refrigeration. As a 501c3 environmental non-profit, our mission is to remove the barriers preventing the widespread adoption of natural refrigerants. Simply put, we aim to make natural refrigerant technologies a feasible choice for all food retailers. To that end, our efforts have centered around three primary objectives: achieve cost parity, drive performance data, and ensure service readiness. The key to our progress has always been to work in partnership with our members and other industry stakeholders to drive actionable solutions.

This past year we met significant milestones towards achieving our objectives. We launched the Aggregated Incentive Program (AIP) pilot, a platform to accelerate and streamline funding for natural refrigerant technologies. The pilot resulted in nearly \$0.9 million in incentives and initiated new funding opportunities at the utility, state, and national levels. We facilitated new field demonstrations that will provide the industry with verified performance data on a variety of HFC-free systems and technologies. To address workforce development needs, we kicked-off a new CO2 curriculum that will ultimately be adopted into HVAC&R training programs across the country. We developed new educational events and resources, including the first-ever Low-GWP and Energy Efficiency Expo and our Natural Refrigerant Technology Webinar Series and Library.

Looking ahead, we anticipate interest in natural refrigerant solutions will scale quickly given their tremendous potential to permanently reduce emissions and meet legislative climate targets. We will be ready for these rapid changes. Ready to build on the groundwork we have laid to drive down first cost, accelerate new technology solutions for existing facilities, and prepare the service workforce. Most importantly, we will be ready to celebrate the successes and achievements of our community as we build a more sustainable future together.

I look forward to continuing our important and impactful work.

Sincerely,

Danielle Wright  
Executive Director  
NASRC

**OUR MISSION:** NASRC is an environmental 501c3 nonprofit taking action to advance natural refrigerants and shape a more sustainable future for supermarket refrigeration.

**OUR VISION:** To significantly lessen the environmental impact of refrigeration through widespread adoption of natural refrigerants and other innovative technology.

# NASRC BOARD OF DIRECTORS



**Bryan Beitler, President/CEO**  
*CoolSys*



**Peter Dee, Chair**  
*Danfoss*



**Brad Person, CFO**  
*SEER2*



**Todd Washburn, Secretary**  
*True Manufacturing*



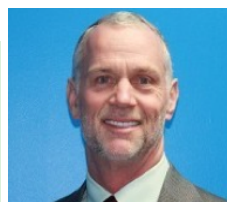
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*Publix*



**Mike Ellinger**  
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**James McClendon**  
*Walmart*



**Todd Ernest**  
*Climate Pros*



**Derek Gosselin**  
*Hillphoenix*



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**Frank Davis**  
*Grocery Outlet*



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## ACHIEVING COST PARITY

### The Barrier

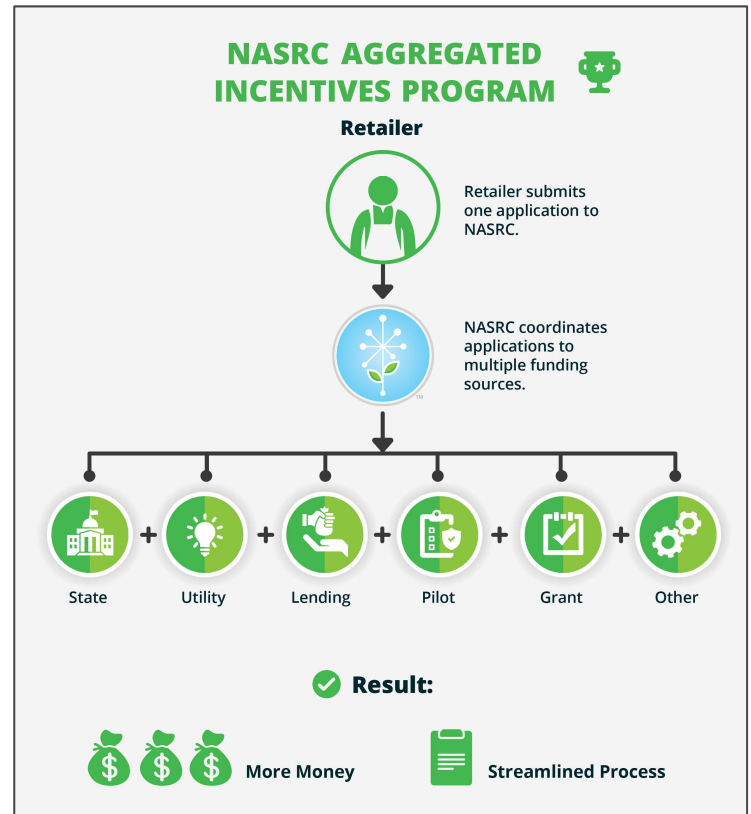
Upfront cost premiums remain the greatest barrier to the adoption of natural refrigerant technologies because, like many new technologies, volumes of demand have not yet grown to reach economies of scale. Upfront costs are particularly challenging in existing facilities where natural refrigerants are not a drop-in solution and require a financially and technically complex remodel.

### NASRC Solutions

Offsetting first costs of natural refrigerant technologies through incentives has the power to drive volumes of adoption towards achieving economies of scale where costs naturally fall. NASRC solutions are centered around developing and coordinating new sources of funding to support the transition away from HFC refrigerants and accelerate the adoption of natural refrigerant systems and equipment.

### 2020 Progress

In 2020, NASRC launched the [Aggregated Incentives Program](#) (AIP) Pilot as a no-cost platform for food retailers. The program was designed to coordinate funding support for natural refrigerant projects, maximize the impact of the California Air Resources Board (CARB) [F-Gas Reduction Incentive Program](#) (FRIP), and accelerate funding for natural refrigerants. Looking ahead NASRC will continue to develop funding opportunities at the utility, state, and national level.



### AIP Results

- \$880K of incentives awarded
- 13 natural refrigerant projects funded in new and existing facilities
- Planned case studies to measure & validate energy performance
- Future technician training opportunities
- Demonstrated demand for incentives





## DRIVING PERFORMANCE DATA

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### The Barrier

Due to the low installation rates of natural refrigerant technologies, there is a shortage of credible data on their energy performance and other ongoing costs, which has created uncertainty for food retailers. As a result, the need for resources and information that provide clarity on the total lifecycle cost and potential return on investment of different natural refrigerant technologies has become increasingly important.

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### NASRC Solutions

NASRC is uniquely positioned to help fill data gaps that are slowing the adoption of natural refrigerant technologies due to our strong network of members and partners. Our 2020 solutions centered around leveraging our network to facilitate pilot projects and other field demonstrations by connecting the funders, implementers, and participants needed to make studies possible.

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### 2020 Progress

NASRC facilitated the launch of 15 field studies and pilot projects in 2020, which will collectively compile data around energy performance and other ongoing costs of various natural and low global warming potential (GWP) refrigerant solutions in both new and existing stores. Ultimately, these studies will result in credible, third-party validated data for the industry that will help provide the clarity food retailers need to assess which technologies best meet their needs.

## Leveraging Data to Drive New Technology Solutions

In addition to driving field studies and pilot projects, data has the power to help bring new technology solutions to the market. In 2020, we initiated a survey of a survey of 13 major food retailers representing more than 17,000 US locations to characterize and highlight the demand for natural refrigerant-based condensing units. By leveraging this type of data, we hope to help bring new technology solutions to the US market.



## ENSURING SERVICE READINESS

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### The Barrier

With the low demand for natural refrigerant technologies, it is difficult for commercial refrigeration contractors to justify investing in training for systems and equipment that their customers are not installing. This challenge has been exacerbated by the bandwidth limitations contractors are facing due to a shrinking technician workforce. Without contractor demand for natural refrigerant training, gaps in training resources and opportunities have emerged. As a result, the market may not be prepared for the growth in workforce training needs as the demand for natural refrigerants increases.

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### NASRC Solutions

To prepare the service industry for an rise in demand for natural refrigerant technologies, NASRC is identifying and filling training gaps for technicians. Our strategy focuses on preventing service readiness from becoming a bottleneck for the scaled adoption of natural refrigerants. Ultimately, our goal is to enable current and future generations of technicians to have access to natural refrigerant training opportunities.

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### 2020 Progress

In partnership with ESCO Group, NASRC kicked off a national CO2 curriculum development initiative for trade school and community college HVAC&R programs. Our goal is to accelerate training for contractors and technicians by exposing students to natural refrigerants before entering the field, addressing one of the root causes contributing to training gaps. In 2020, we formed a committee of expert industry, training, and school stakeholders that have begun to compile a modular curriculum to be adopted by school programs.

## Connecting the Dots

In addition to accelerating the development of natural refrigerant training resources, NASRC is connecting technicians to existing natural refrigerant training resources through our [CO2 Training Library](#) and [R290 Training Library](#). We're also connecting end-users with trained contractors through our [Downloadable Contractor Directory](#).

## EDUCATION & ENGAGEMENT

NASRC is driving the education and engagement needed to expand support for this issue and equip the industry with resources the resources they need.

### Environmental Resources

As more businesses focus on reducing their carbon footprint and greenhouse gas (GHG) emissions, natural refrigerants have gained traction as an effective strategy to achieve sustainability targets. In 2020, we leveraged new educational platforms to increase awareness of natural refrigerants as a leading climate solution and expand support for the transition, such as:

- [TEDxReImagineScience Talk](#): Unpacking the #1 Global Climate Solution
- [How to Save A Planet Podcast Episode](#): Cold Hard Cash for Your Greenhouse Gas

### Educational Resources

NASRC also developed new resources to help connect industry stakeholders and facilitate knowledge-sharing across the industry, including our:

- [Natural Refrigerant Technology Library](#)
- [Resource Library](#)
- [Member Directory](#)

### Low-GWP & Energy Efficiency Expo

In January, NASRC hosted the first-ever Low-GWP & Energy Efficiency Expo. This 2-day event brought together over 200 supermarket refrigeration, energy management, and regulatory stakeholders to explore the latest commercial refrigeration technologies and identify solutions for a low-GWP and energy efficient future for supermarkets. The event shed light on the need for natural refrigerant technology solutions for existing stores and funding support to aid the transition, and it laid the groundwork for some of our key cost and data initiatives in 2020.





## MEMBERSHIP MATTERS

NASRC's member network is the backbone of our organization and the driving force behind our mission. In 2020, our member network and engagement grew more than ever before, and now represents more than 130 organizations from sector of the commercial refrigeration industry and over 38,000 food retail locations. See a [full list](#) of 2020 NASRC members at the end of this report.

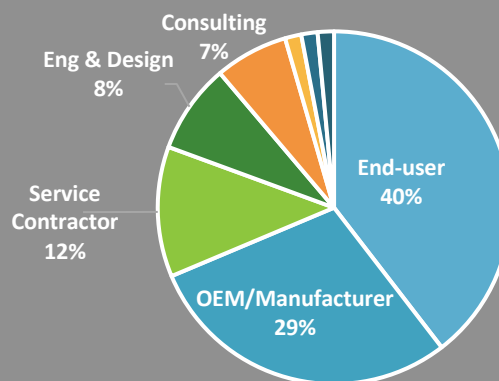
### 2020 NASRC Membership

130+ Member Organizations

38,000+ Food Retail Locations

60% US Supermarket Locations

### 2020 Membership by Type

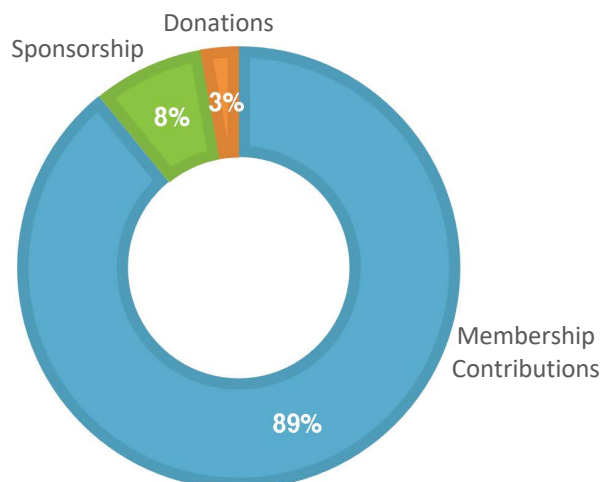


### Food Retailer Leak Reduction Initiative

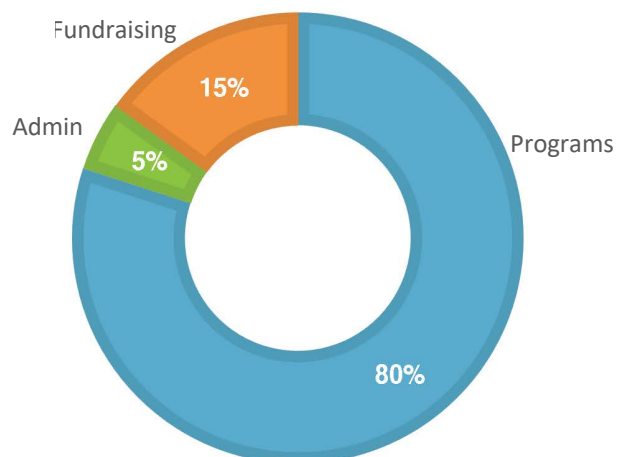
At the start of 2020, NASRC food retailer members launched a collaborative effort to reduce leaks in commercial refrigeration. A group of six major food retailers formed the Retailer Best Practices Committee to identify scalable leak mitigation practices that could be adopted throughout the NASRC food retailer membership. The ultimate goal was to create a leak-reduction solution that works for both food retailers and manufacturers.

## 2020 FINANCIAL OVERVIEW

### 2020 REVENUE



### 2020 EXPENSES



# NASRC MEMBERS

Thank you to our 2020 members! None of this would be possible without your support.

## Titanium



## Platinum



The Arcticom Group



HUSSMANN®



## Gold



## Silver



## End User

Albertson's  
ALDI  
Arizona Grand Resort  
Ashland Food Coop  
Boulder Organic Foods  
Bratteboro Food Coop  
BriarPatch Food Co-op  
Brookshire Brothers  
Campbell Soup Company  
Chavez Supermarkets  
Cook County Whole Foods Coop  
Costco  
Draeger's Supermarkets  
East Aurora Co-op  
Food Lion  
Genentech, Inc.  
Giant Eagle  
Grocery Outlet  
H-E-B  
Hannaford  
Harris Teeter  
Holiday Quality Foods  
Loblaws  
Longos  
Lowe's Market  
Mom's Organic Market  
National Co+op Grocers  
Nature's Path Foods  
New Leaf Markets  
New Seasons Market  
Nugget Market  
Palace Market  
Park Slope Food Coop  
PCC Community Markets  
Publix Supermarkets  
Raley's

Red Bull North America  
Sprouts Farmers Market  
Stater Bros. Markets  
Sugar Creek Packing Co  
Target  
The Fresh Market  
The Kroger Co.  
The North West Company  
United Natural Foods  
Vallarta Supermarkets  
Walmart  
Weis Markets  
Whole Foods Markets

## Service Contractor

Accutherm Refrigeration  
Classic Refrigeration SoCal  
**Climate Pros**  
Compass Refrigeration  
**CoolSys**  
*Fazio Mechanical Services*  
Key Mechanical  
Omni Mechanical Solutions  
Professional HVAC/R Services  
*Remco, Inc.*  
RMC Refrigeration  
South-Town Refrigeration  
St Cloud Refrigeration  
**The Arcticom Group**  
Turner Piping & Refrigeration

## Engineering & Design

Aislamientos Constructivos  
Benchmark Group  
Cushing Terrell  
DC Engineering

Energy Efficiency Services (E2S)  
Enreps LLC  
kW Engineering  
ripKurrent  
SEER2  
SESCO  
VaCom Technologies

## Consulting

2050 Partners, Inc.  
Certified Energy Consultants  
CLEAResult  
Ecology Action  
Emerging Energy Solutions  
*Livingstone Consulting*  
Optimized Thermal Systems  
Refrigerant Management  
Services  
Supermarket Technical Services

## OEM/Manufacturer

Aeropres Corporation  
**AHT Cooling Systems USA**  
Arneg  
Bacharach  
**Baltimore Aircoil Company**  
**BITZER Canada**  
**BITZER US**  
**CAREL USA**  
Carlyle Compressor  
Carnot Refrigeration  
**Carter Retail Equipment**  
Conex Bänninger  
**Danfoss**  
ebm-papst Inc.  
**Embraco**

**Emerson**  
Evapco  
**Güntner US**  
Heat Transfer Product Group  
Heatcraft Refrigeration  
Products  
**Hillphoenix**  
*Howe Corporation*  
**Hussmann**  
**Kysor Warren**  
LEER INC.  
Novum  
*Officine Mario Dorin*  
**Parker Hannifin**  
Pure Cold  
**Rivacold**  
**Secop**  
Southern CaseArts  
**Systems LMP**  
Tecumseh Products Company  
*Temprite*  
**True Manufacturing**  
Xantus LLC  
Zero Zone

## Trade Organization

*HARDI*  
RSES

## Software Company

Axiom Cloud Inc.  
ServiceChannel  
Trakref

## Utility

Efficiency Vermont  
**Southern California Edison**