



ACCELERATE

ADVANCING HVAC&R NATURALLY

M A G A Z I N E

ACCELERATE AMERICA AWARDS



- Marc Chasserot's statement about Accelerate America
- Sixteen issues and counting
- Breaking down barriers
- Five awards
- Award criteria





ACCELERATE AMERICA AWARD **FOOD RETAIL**



- An inspirational presentation at FMI Energy in 2010.
- Sobeys makes transcritical CO₂ its standard.
- 80+ transcritical stores, new and retrofit.
- 15-20 transcritical stores added annually.
- No more phase outs – set for life (Yves Hugron



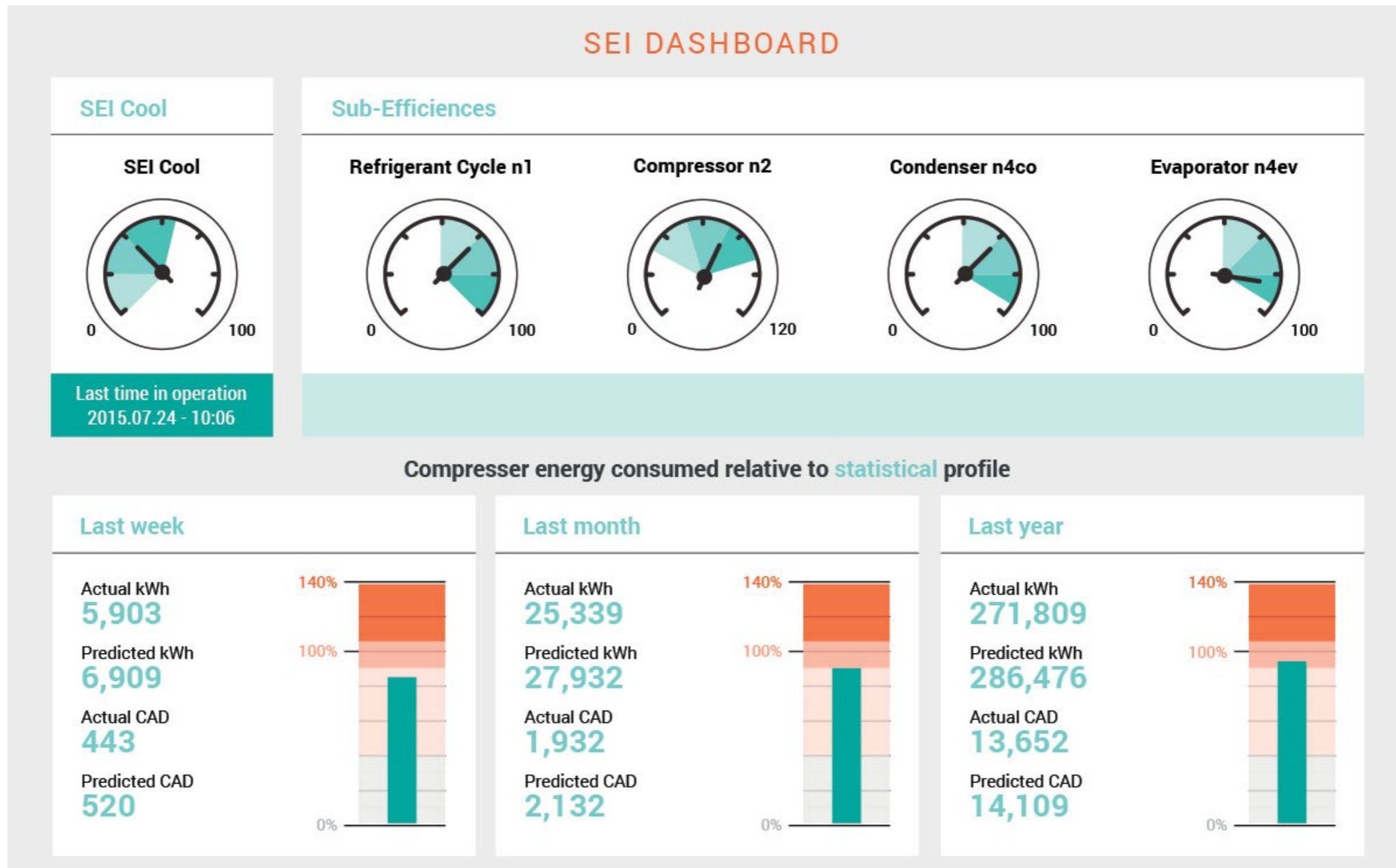


- 8% to 10% lower energy costs
- First costs the same or lower than HFCs
- Mostly in Quebec, but all across Canada
- Use of SEI – Ian Crookston





CO2 transcritical installations throughout Canada



Using System Efficiency Index



ACCELERATE AMERICA AWARD **FOODSERVICE**

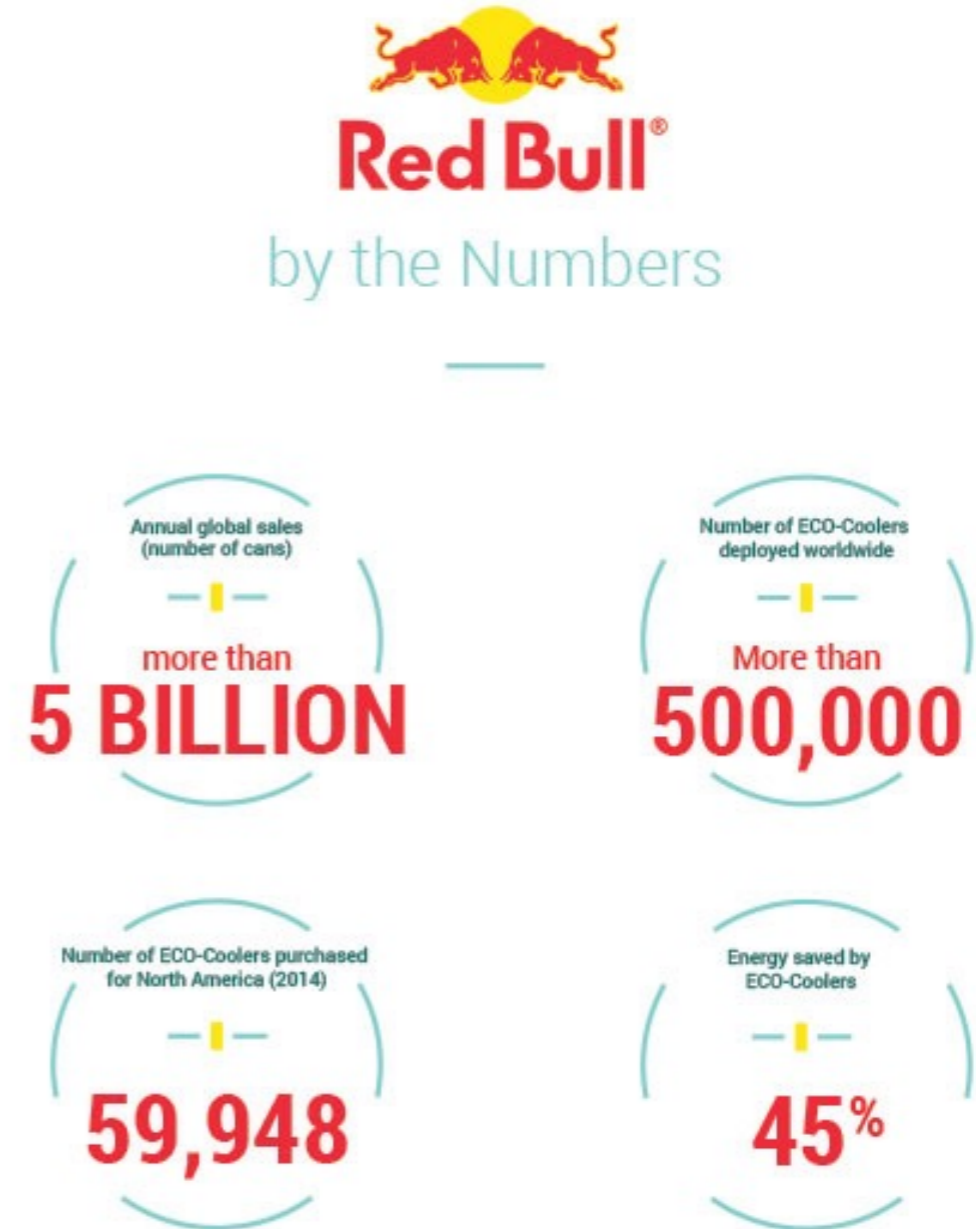


- In 2008, Red Bull decision to deploy hydrocarbon ECO-Cooler beverage merchandisers.
- In 2011 Red Bull joined Refrigerants, Naturally!
- ECO-Cooler = 45% less energy than conventional HFC refrigerators.
- Only as much energy as a single 100-watt light bulb.
- These coolers are saving retailer REAL MONEY! – Paige Dunn





- In 2014, 65% of Red Bull's fleet use hydrocarbons,
- ECO-Cooler = Global Standard
- Last year, 500,000 hydrocarbon coolers installed worldwide.
- Training mandate, rendering it "non-issue."
- Successful petition of EPA to approve R600a for cooler





ACCELERATE AMERICA AWARD **INDUSTRIAL REFRIGERATION**



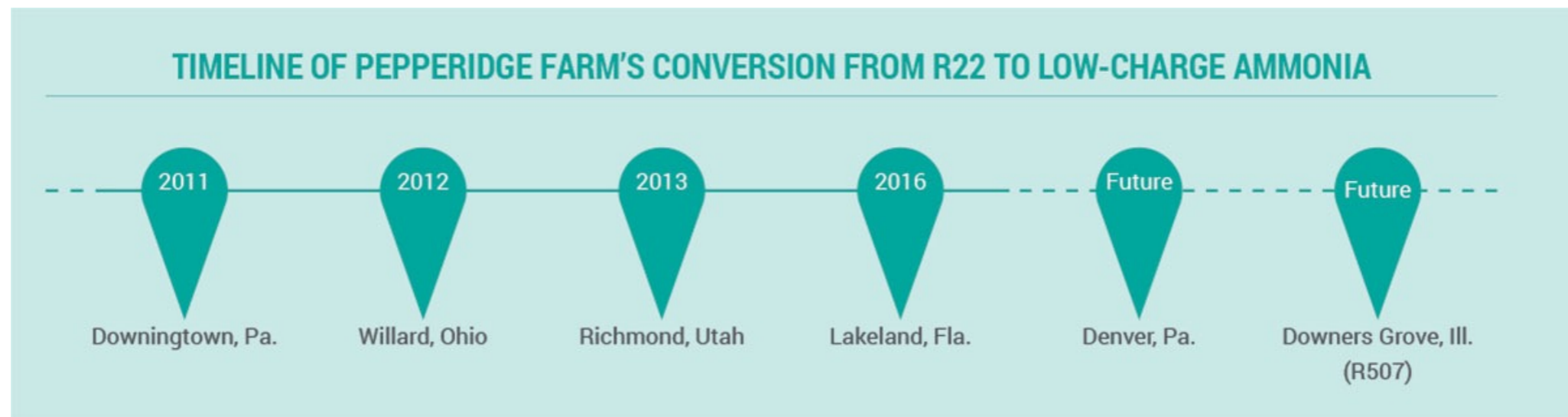
INDUSTRIAL REFRIGERATION - CAMPBELL SOUP

- Bob Czarnecki pioneers use of low-charge ammonia in the late 1980s.
- Now Bing Cheng is carrying the torch.
- Replacing large-charge ammonia systems at thermal plants with low-charge ammonia/glycol
- Replacing R22 at Pepperidge Farm plants with similar systems.





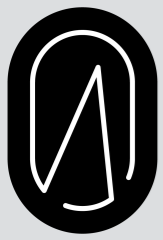
INDUSTRIAL REFRIGERATION - CAMPBELL SOUP



-- At Richmond, Utah, plant, ammonia charge is only 0.9 lbs./ton.

--Ammonia packages have been found to be more energy efficient than the R22 systems they replaced.

-- Membership in Consumer Goods Forum



ACCELERATE AMERICA AWARD **INNOVATION OF THE YEAR**



INNOVATION OF THE YEAR - TRUE

- Reading the handwriting on the wall: DOE 2017, EPA 2019/2020.
- True leads the way toward self-contained propane refrigeration merchandisers and coolers.
- Dropping HFC models.
- Others following suit.
- EPA's 2016 Energy Star Emerging Technology Award for 42 hydrocarbon units. – Steve Trulaske and Kirsten Hesla, EP





- 42 propane units, by far the largest number of pieces of equipment one company has ever had recognized by the EPA's Energy Star program.





INNOVATION OF THE YEAR - TRUE

- EPA required 5% higher efficiency
- True's units are on average 25% to 30% more efficient.
- Comparable in cost to the HFC models.
- For grocery chains, convenience stores, discounters, dollar stores, restaurant chains and beverage brands.
- A GAME-CHANGER

TRUE MAKING YOUR WORLD COOLER®

HYDROCARBON REFRIGERANT THE FUTURE, NOW.

WHAT IS HYDROCARBON REFRIGERANT?
Hydrocarbon (HC) refrigerants are natural, nontoxic refrigerants that have no ozone depleting properties and low global warming potential. Hydrocarbons are one of the most climate-friendly and cost-effective refrigerants to cool and freeze.

WHY IS HC REFRIGERANT BETTER?
Current HFC Refrigerants (R134a and R404a) have extremely high **Global Warming Potential (GWP)** that is harmful to the environment.

- HC Refrigerants have very minimal GWP.

HC Refrigerant's thermodynamic properties are superior to both R134a and R404a.

- R290's **heat capacitance** is approximately 90% greater than R134a and 140% greater than R404a with lower viscosity. This means that R290 can absorb more heat, faster, resulting in quicker temperature recovery and lower energy consumption.





ACCELERATE AMERICA AWARD **PERSON OF THE YEAR**



- Sobeyes, the beginning of a beautiful relationship
- Supplying more than 50 of Sobeyes' 80+ CO₂ transcritical stores.
- First U.S. transcritical store at Hannaford.
- Reacting to the European market.
- CO₂ for supermarkets, cold storage, food processing, ice rinks, and data centers.





PERSON OF THE YEAR - MARC-ANDRE LESMERISES, CARNOT



- Someone who made a huge difference.
- The courage to be first and commit to CO₂.
 - Opening up the marketplace.
 - A CO₂ visionary.



Congratulations to the winners!