



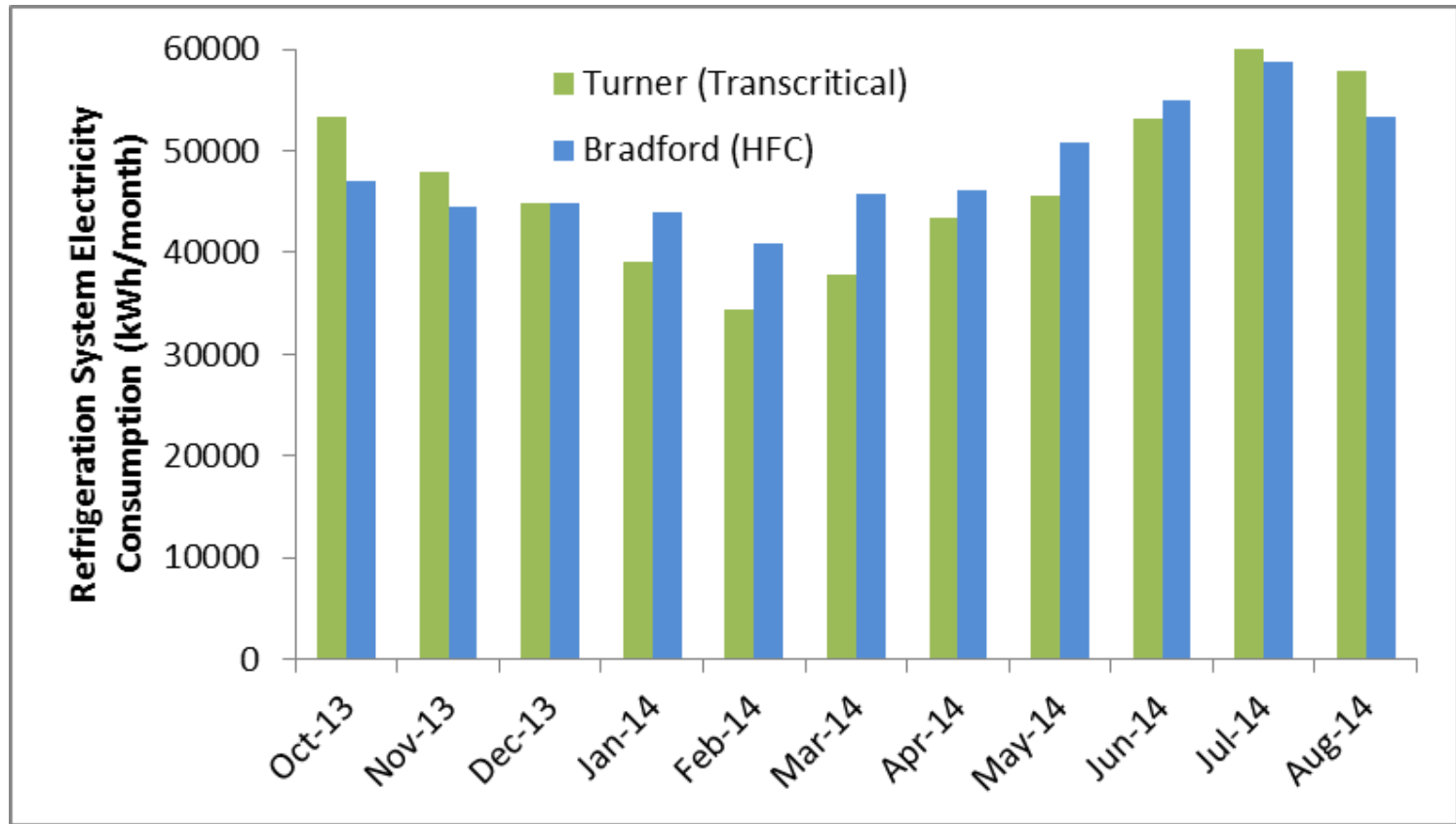
Harrison Horning  
Delhaize America

*Food Retail Panel*

# Delhaize America Experiences

- CO<sub>2</sub> hybrid pilots (DX, pumped)
  - Several Food Lion stores; ~2008 - 2010
- CO<sub>2</sub> TC pilots – operating
  - Turner, ME; 35,000 gsf Hannaford store; Jul 2013
  - Energy analysis report published by DOE/BBA
- CO<sub>2</sub> TC pilots – under construction
  - N. Berwick, ME; 20,000 gsf Hannaford; Aug 2015
  - Southport, NC; 35,000 gsf Food Lion store; Q4 2015
- R290 self-contained coffin cases
  - Testing at Hannaford

# CO<sub>2</sub> Transcritical Energy Performance



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Overall Energy Use Index (EUI) comparison

Electricity and propane

12 months ending Apr 2015:

Turner (CO<sub>2</sub> TC) = 194 kBtu/sf/yr

Bradford (HFC) = 190 kBtu/sf/yr

We expect reasonably good energy performance on all CO<sub>2</sub> TC pilot projects.

# R290 Self-Contained Coffin Cases

- R290 is expected to yield low energy costs
- “Plug-and-play” refrigeration modules (“cassettes”) are expected to yield low maintenance costs
- Avoids some under-slab piping and utilities
- More flexibility for merchandising and remodels
- Piloting at Hannaford



**ATMO**  
**sphere**  
business case  
**natural refrigerants**  
25 & 26 June - Atlanta, Georgia

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Thank you!