

CO2 Supermarket System

Case study with a national retailer - comparing calculated energy consumption and actual energy results of a CO2 booster system



Sprouts Farmers Market, Dunwoody GA

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Case Study of a Warm Climate CO2 Booster System

2014 Topics:

- **A Sprouts Farmers Market Store and the Advansor CO2 Booster System Installed There**
 - Eliminate HFCs and Reduce the Carbon Footprint
 - Energy Comparison With the Customer's Traditional R407A System for That Location
 - *The Adiabatic Condenser applied to the system*

Sprouts Farmers Market

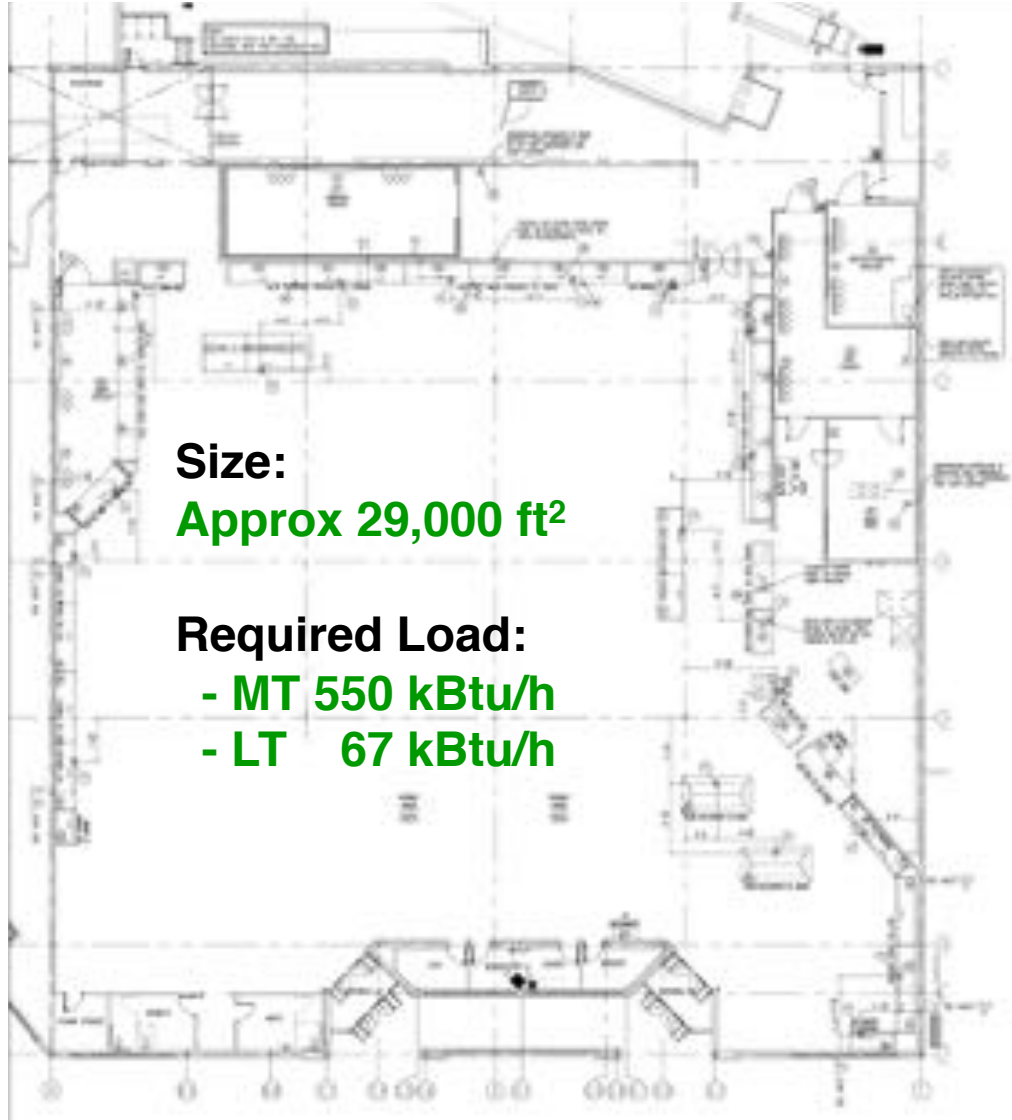


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Location – Dunwoody GA
Opened – July 2014

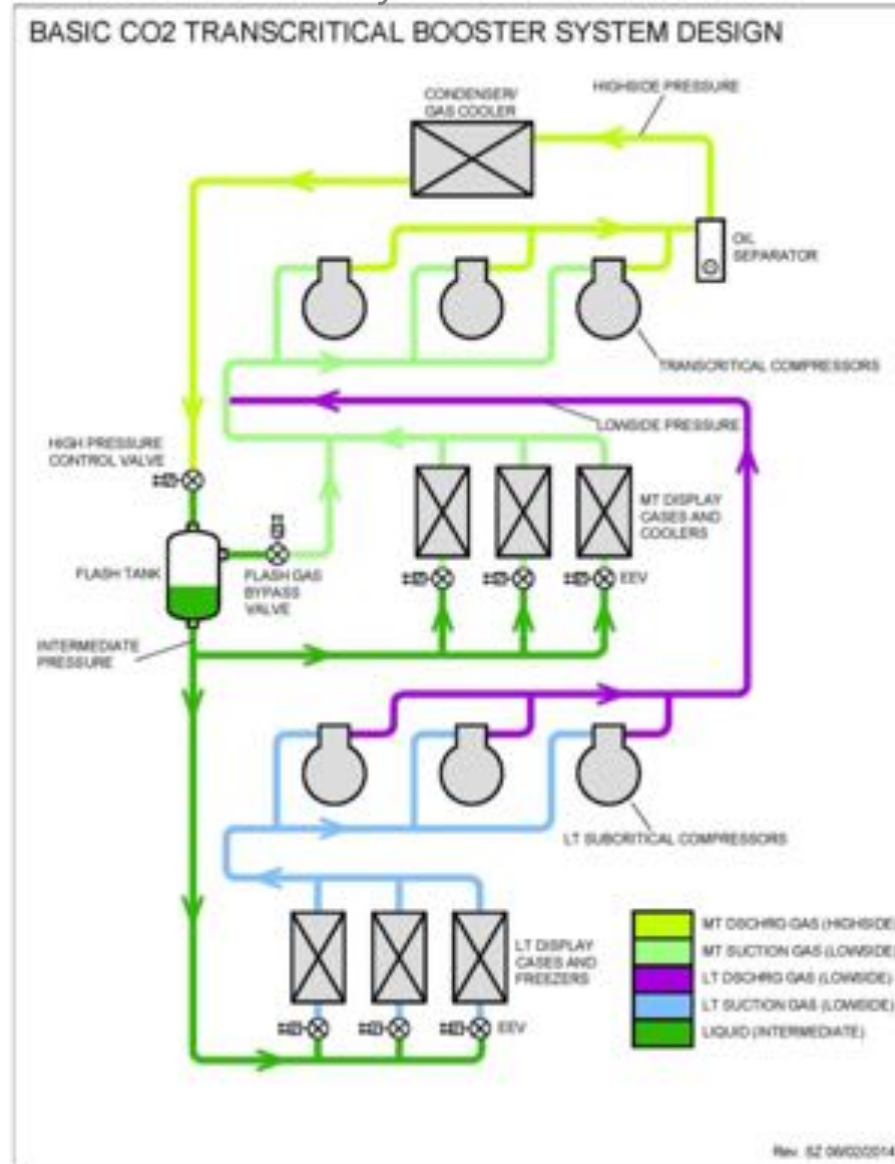
Sprouts Farmers Market

Dunwoody GA



Sprouts Farmers Market

Facility Review



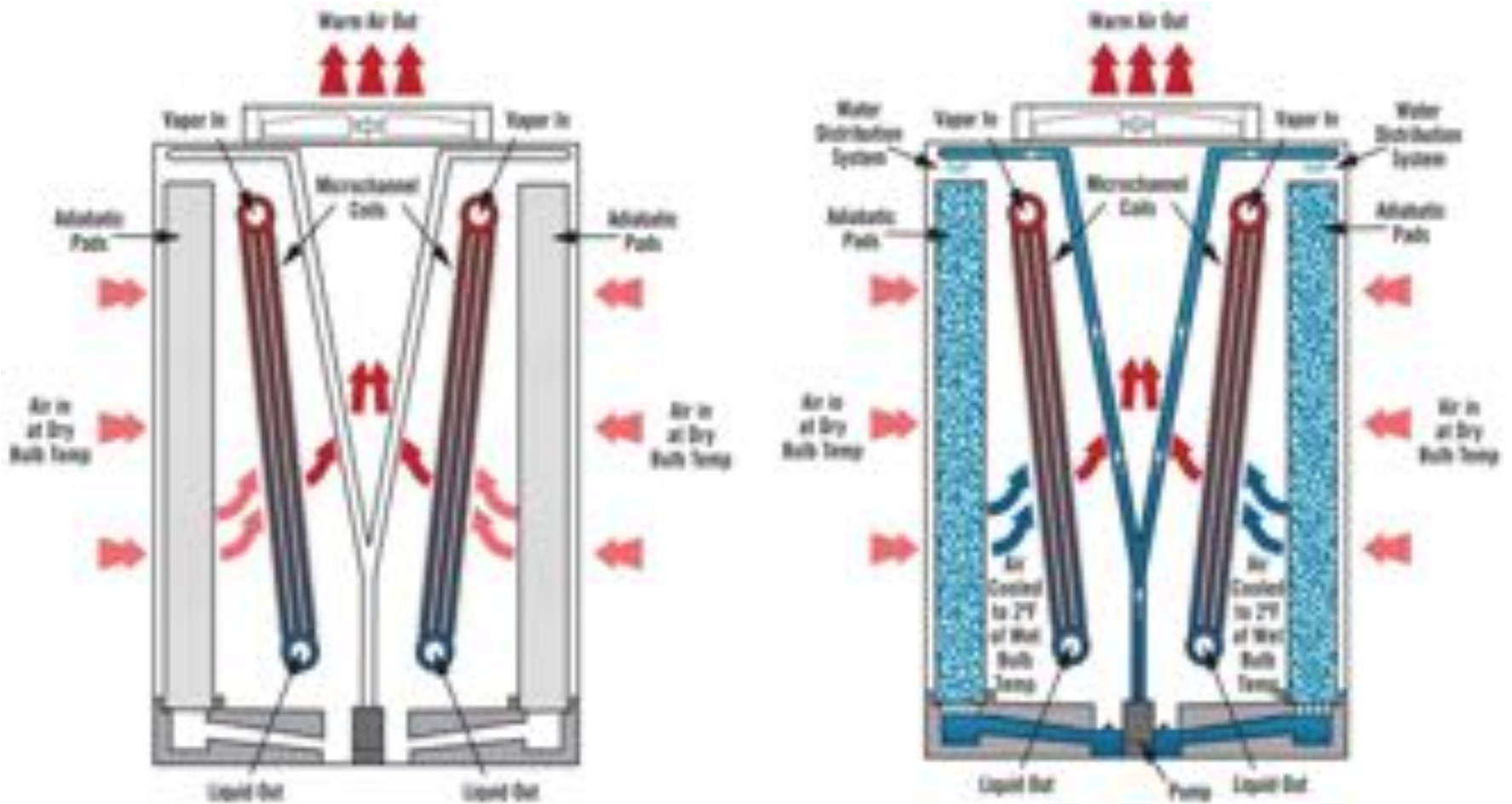
Sprouts Farmers Market

Facility Review

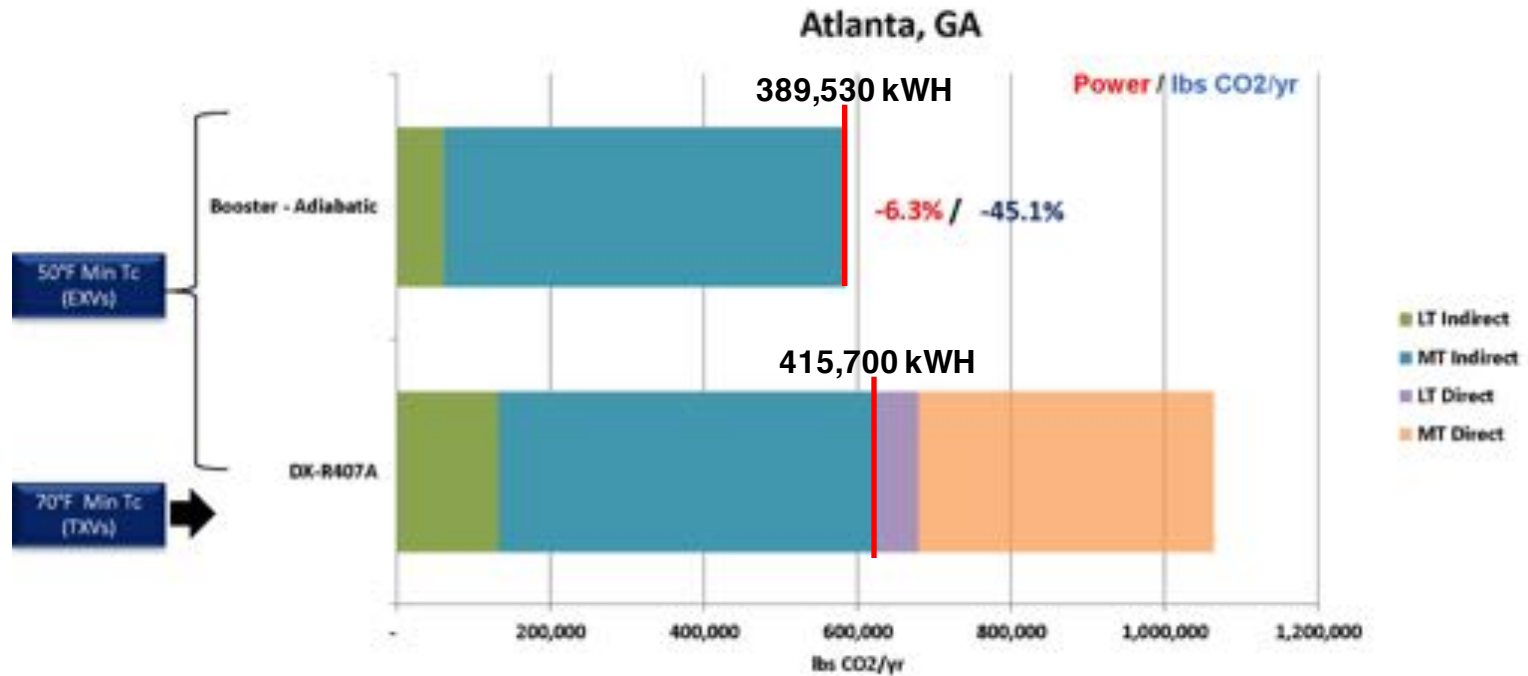


Sprouts Farmers Market

Facility Review



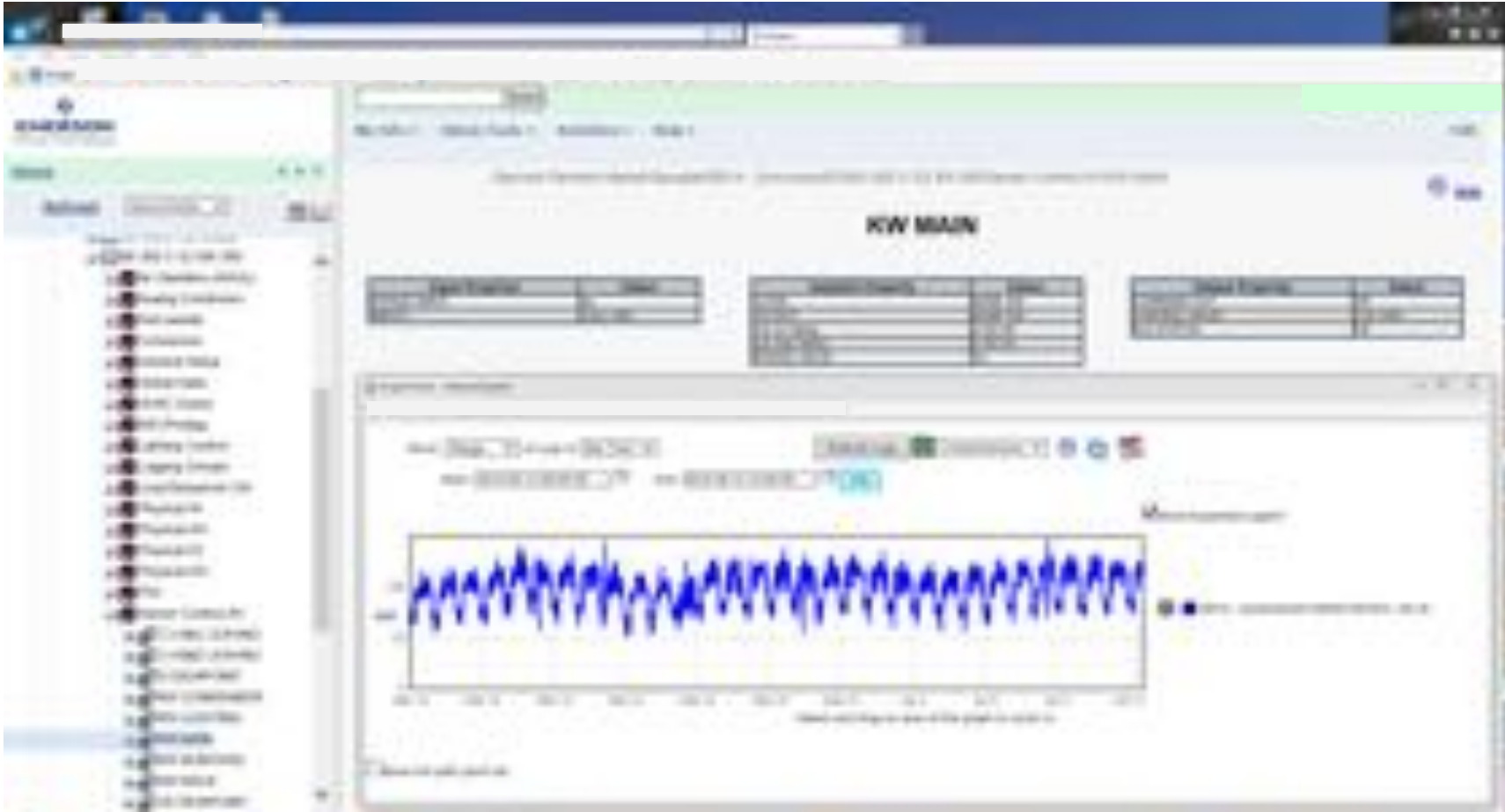
Annual Comparison – Atlanta, GA



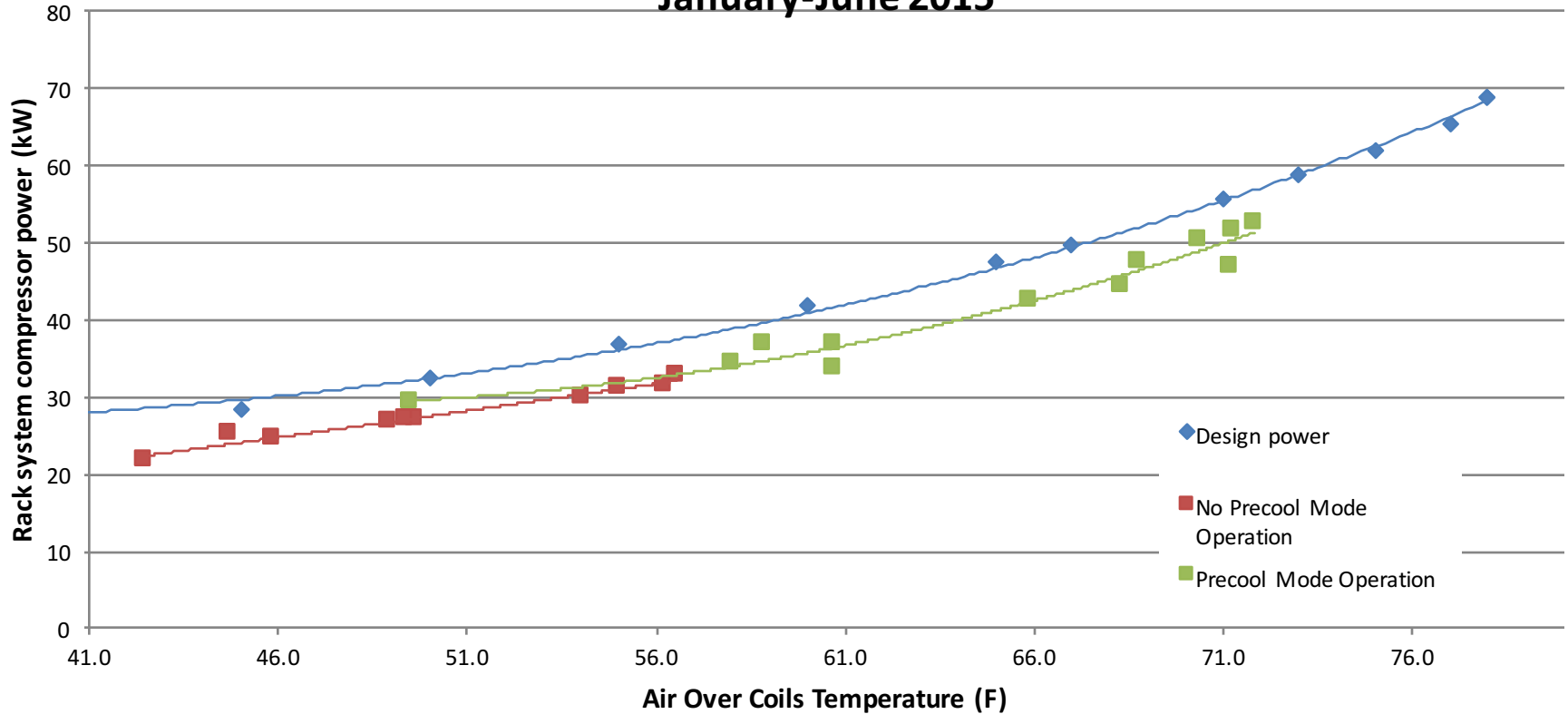
Analysis Only - Actual Performance In A System Could Be Different
 The advice and conclusions by Emerson Climate represents Emerson Climate's best judgment under the circumstances, but such advice given and/or conclusions made or results obtained shall be deemed used at your own risk.

Sprouts Farmers Market

Data Acquisition



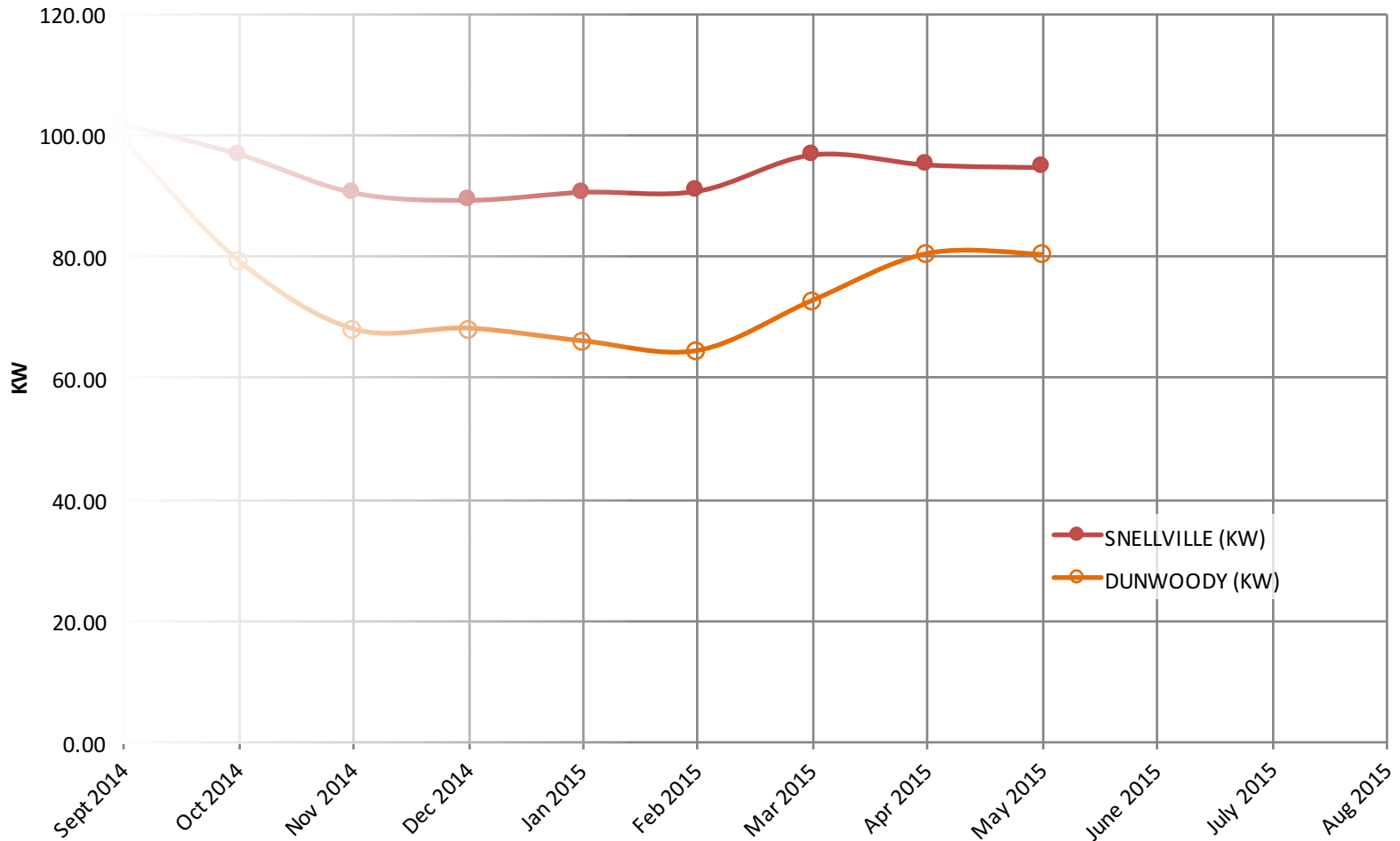
Dunwoody Theoretical and Measured Compressor Power January-June 2015



Store Power

Georgia Sprouts Stores

AVERAGE MONTHLY STORE POWER



Rack/Condenser Power

Georgia Sprouts Stores

	Suction Group Temps	Circuit Counts	Compressors	Capacity (BTUH)
Snellville	LT -24°F	7	3	91.0K
	MT 20°F	19	5	695.4K
Dunwoody	LT -20°F	7	3	77.6K
	MT 21°F	19	4	610.4K

Sprouts' Conclusions



- **The actual energy consumption of the installed refrigeration system is at or below the values predicted by calculation.**
- **The 2014 theoretical comparison is correct, the energy consumed is less than the standard system.**
- **Eliminated HFC's and Reduced Carbon Footprint**





Thank You!

Jeff Newel
Hillphoenix