

natural refrigerants



The Greenest way to preserve and save

# Serge Dubé CSC Presentation





- CSC's History
- Canadian Food retail Picture
- CO2 market perspectives
- CSC's transcritical solutions
- Questions

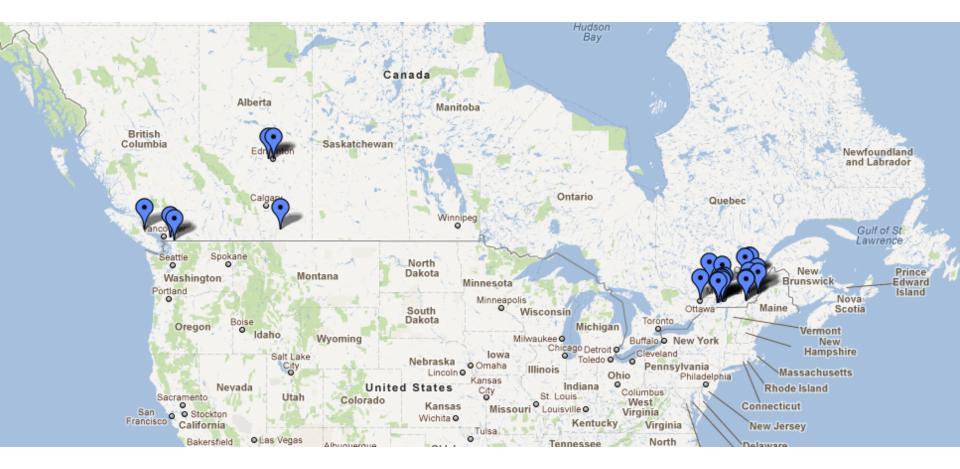


## •Brief History of the CSC Group

- Founder : Serge Dubé
- CSC Group: Compressor Systems Control / Smartref Technology
- Manufacturer since 1996
- More than 35 canadian and US patents
- Hundred of installations all across Canada (supermarkets-HFC)
- First North American transcritical CO2 commercial system:
  - •IGA Coteaux-du-Lac, June 2009.



#### Eco2-Systems in Canada





### **Canadian Food Retail Picture:**

- 1. Loblaws, 1530 locations, 31.7B \$
- 2. Sobey's, 3042 locations, 15.7B \$
- 3. Metro, 1278 locations, 11.9B \$
- 4. Canada Safeway, 286 locations, 6.8B \$
- 5. Costco, 68 locations, 5.0B \$
- 6. Overwaitae Food Group, 184 locations, 2.7B \$



# CO2 Market Perspectives:

- Canada:
  - CO2 refrigeration is well establish in 2 large food retailers
    - All new stores will use R744
    - Proven Energy Savings
    - Carbon trade exchange available

- USA:
  - UL approval shall open the market for CO2 refrigeration



# Eco2-system's Advantages:

- Supermarkets:
  - Soft Start:
    - Automatic re-start device after power failure
    - No CO2 losses during power failure
  - High pressure security line
    - Protection against high pressure for all cases
  - Efficient and Quick Low Pressure hot gaz defrost:
    - Defrost pressure never exceed 400 psi in the cases
  - High efficiency multi-zone heat reclaim
    - Domestic hot water
    - Building



#### Eco2-system In-line rack





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#### CSC leading technologies are <u>available</u> and <u>built</u> in USA for US market through our relationship with Kysor/Warren, a brand of Heatcraft Worldwide Refrigeration

# **Questions?**

Thank you!