



# Feeding America Southwest Virginia Food Bank

Salem, Virginia

The Feeding America Southwest Virginia Food Bank serves 26 counties and 10 cities primarily in the Southwest Virginia region. ColonialWebb has been providing Feeding America's Salem Distribution Center with HVAC and Refrigeration services since 2007.

## The Challenge

Feeding America Southwest Virginia is a nonprofit that operates on an extremely tight budget. Most of their donations and income go to serving the needs of people with only a small portion allocated to facility repairs. Due to minimal resources allocated to facility maintenance their refrigeration and mechanical systems were in need of repairs and faced constant breakdowns. They were continually spending repair money on their freezer in an attempt to keep it running without replacing it. In addition, they were looking for days to reduce their extremely high utility costs.



*"Colonial Webb continues to provide us with efficient turn-key solutions that meet and exceed our expectations from both a strategic plan and tactical, day-to-day basis. They are a true partner to Feeding America Southwest Virginia."*

**- Bob Frampton  
VP Operations & Logistics,  
Feeding America Southwest  
Virginia Food Bank**

## The Solution

The nonprofit was able to earn a grant from the USDA as well as a private grant to help with their growing concerns. They turned to ColonialWebb to help them decide what mechanical work they could perform to decrease their costs and reduce utility expenses. ColonialWebb's Green Energy Solutions team came into the facility and performed an Energy Dig to help identify areas where the Food Bank could best utilize their funding.



The Dig helped identify that their freezer system used the most energy in the facility and had the highest ongoing repair cost. After looking at their options, the Food Bank decided to have a new state-of-the-art freezer system installed, utilizing energy saving technology including:

- Electronically commutated motors which save 50% to 60% compared to regular motors.
- Utilized smart defrost controls to drastically reduce usage of electric heaters during defrost.
- New automatic freezer doors that quickly open and close to keep moisture infiltration from entering the cooler. Keeping the moisture from entering the box drastically reduces defrost time.





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ColonialWebb was also able to lower the cooling load in the freezer by changing the lighting from metal halides to T5 light bulbs with reflectors. Motion sensors were installed on the lighting to ensure the lights are off when no one is in the freezer. By lessening the heat output from the lighting, ColonialWebb was also able to install smaller, more efficient equipment and drastically reduce the energy used from lighting.



## The Results

Since July 2010, Feeding America Southwest Virginia has had \$28,656 in energy savings. Those savings are equivalent to providing an additional 86,154 meals to their community. In addition, the new system included a warranty and maintenance program that will save \$13,256 per year during the first five years. Originally, the project was estimated to have a six and a half year payback, but current calculations have brought that estimate down to only four and a half years.



Before



After

