2014 BIG TEN CONFERENCE

50% energy reduction with a Stirling Freezer

65% lighting energy cost reduction utilizing LED kits

80% motor energy cost reduction in coolers and freezers utilizing ECM motors

STIRLING FREEZER

Manufacturers claims:
50% reduction in operating costs
20% more storage space for the foot print
120 or 208 plug available
-20 to -86 operating range
Electrically Commutated Motors and More

-80°C - Cycling Characteristics of the Freezers

-80°C - Hourly Average Power Draw
Electrically Commutated Motors and More
Each freezer has a different volume of storage. This chart shows the total energy costs over 12 years per cubic foot.

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12 Year Cost of Ownership. Factors in the additional space available in the Stirling and one compressor replacement after year seven for other units.
FREEZER SUMMARY

50% reduction in operating costs: Check

LED KITS

60% reduction in operating costs
No blended fixtures
No mixing LED tubes and fluorescent tubes
5 year and less ROI
Utilizes existing fixture housing
Moos Tower LED Retrofit Results
Below is the amperage of the circuits before and after the retrofit.
Consumption is reduced 66% utilizing LED lighting

Before retrofit

After retrofit

Total Moos Electric (kW) 4/30/14 vs 4/22/13
20 Story Building ~ 675,000 sq ft

4/30/2014 [m] 4/22/2013 [m]
ECM MOTORS

80% reduction in operating costs

18 month or less ROI
SUMMARY

Stirling Freezer

LED Retrofit Kits

ECM Motors