

## **Industrial Refrigeration and LEED Certification**

In the world of Industrial Refrigeration, LEED certification is very rare. To have a facility with a gold LEED certification is truly unique.

I have had the opportunity to visit the first large cold storage granted this prestigious designation. The facility is the 135,000 s.f. Innovative Cold Storage in San Diego, Ca. Some of the sustainability features they employ are as follows:

- LED lighting was installed instead of traditional metal halide lighting. Motion sensors turn lights instantly on and off, a feature the metal halide lights cannot do in a -10 degree environment. The combination of these reduced the energy consumed by the lighting by 76%.
- VFD drives on compressor motors, evaporator fans and condenser fans.
- 3400+ solar cells on the roof generating 1 mega watt of power.
- A Control System that allows the temperature to “float” during the day and pull down at night when rates are less and outside temperatures allow for increased efficiency.
- Wall, floor and roof R-values 50-100% higher than in conventional cold storage construction.
- Condensation from the evaporator coils is collected and used to flush toilets.
- Rainwater is collected into two storage tanks located under a parking lot and used to provide make up water to an oversize evaporative condenser.
- Condenser blowdown is non-chemically treated and is stored for use in irrigation systems.

This is a truly impressive facility incorporating design features that should be explored in similar facilities throughout the country.

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