

## The following are some of the **IceCOLD®** installations

### Since 2002 and the reported savings:

#### **Manufacturer's independent engineering data logger pilot analysis reported:**

- York reported 28% increase in BTU/KWH on a 125 ton chiller
- Westinghouse reported 21.8% on an air to air packaged units.
- Trane reported 12% on a 360 ton chiller after installing 1/3 of the required amount of IceCOLD to "see what would happen".

#### **Customers' independent data logger analysis, approximately one hundred data logger analysis show a 20% average for air units and 16% on chillers:**

- The 7-Eleven main corporate refrigerated warehouse in Lewisville, Texas; has seen a 23.6% savings in the data logger actual data.
- 7-Eleven main corporate warehouse in Orlando, Florida, independent refrigeration contracting firm SOURCE Refrigeration reported over 30% measured savings.
- Dr. Wolski Clinic in Dallas, Texas 20% savings
- Digital Realty Trust; Liebert Deluxe System 3 with dual compressors New York; 19.1% savings
- Hunter College; of Syracuse University, 25 year old chiller; 28% electricity savings
- San Antonio, Texas convenience store – 41% increase in efficiency
- A MacDonald's in Amman, Jordan reported 36.4% increase in efficiency
- Houston, Texas Memorial City Mall's independent engineering firm reported a 21% savings
- Liberty Christian School; Argyle, Texas – 16% savings - 1,200 tons
- Condesa Hotel's 650 ton chillers showed a 15% increase in BTU/KWH.
- Sunset Hotel's walk in cooler showed a 34% increase in BTU/KWH
- Flagler Schools 100 ton chiller logger reported a 28% increase in BTU/KWH
- Flagler Schools cafeteria and classroom rooftop units reported a 38% increase in BTU/KWH
- Scotia Bank's chiller logger showed a 15% increase in BTU/KWH in cold weather
- The logger at 7-Eleven Corporate refrigerated warehouse showed a 23% % savings in a three month run. Total CO<sub>2</sub> savings for 10 warehouses is 960,000 pounds annually.
- Data logger at a Fort Worth nursing home 10 ton rooftop unit showed a 21% increase in BTU/KWH
- Presbyterian Hospital in Dallas analyzed a 23% savings on their second building installation 40 ton packaged unit at their Natatorium.
- Baylor Hospital in Dallas shows over a 30% electivity savings after installation at their laundry.
- Spring Hill Hospital in Mobile, Alabama shows a 30% electivity savings in their 8 operating rooms.
- Texas Mental Health Mental Retardation Hospital laundry logger showed a 23% increase in BTU/KWH.
- Popeye's Fast Food Restaurant in Laredo, Texas's energy usage was measured continuously over a 3 day period on a 2 1/2 ton Carrier roof top; the savings was 34% at the same heat loads.
- In raw-milk refrigeration equipment at Rio Blanco Dairy, Muleshoe, Texas the 26 ton chiller based on 8 cents per KWH showed a 17.3% savings verified by the OnSet Computer data logging devices indicating an annual electricity cost savings of \$1,727.00 for a 6 month payback.

- The OnSet data logger at a Lubbock Dairy Queen 10 ton roof top kitchen unit showed savings of over 30%.
- The Friendship School Admin building in a Lubbock Texas pilot on a 5 ton rooftop packaged unit showed 32.7% increase in BTU/KWH performed by Duncan Heating and Air.
- City of Euless, Texas dorm area at Fire Station #2 a 5-ton Lennox rooftop reported 16% savings.
- The two data loggers at Mayfair House nursing home in Hampton, Virginia analyzed 15.8% and 16.2% increase in efficiency in the kitchen and the "SCU" areas.

### **Numerous customers report savings directly from their electric bills:**

- Dr. Wolski Clinic in Denton, Texas 20% savings; annual savings \$10,477
- Houston, Texas Memorial City Mall's reported that their electric bills showed a \$58,729.77 annual savings for a three month payback.
- Fairfield Resort in Las Vegas (250 rooms) reported a \$41,000 savings in a six month period compared to the same period the previous year; in the savings year, there was 20% higher occupancy and 6 degrees hotter average temperatures, and an increase in electricity rates of over 10%.
- A Lubbock home 3 1/5 ton unit saved over 20%.
- A South Lake home 5 ton unit saved over 30% three months running summer 2008.
- Another South Lake home 5 ton unit reports a \$200 per month reduction in electricity cost.
- Two other South Lake homes with 12 tons reported savings of over 20% two months running.
- Sabas Menswear store in Phoenix, Arizona, in September, 2003 indicated savings of \$3,200 per year for a 9 month payback.
- CEC Entertainment's Restaurant in Las Vegas reported measured their own AC electricity savings at 30%
- Meza Grill, Houston, Texas, 10 ton RTUs 18% savings.

### **Hundreds of efficiency calculations have been done by calculating before and after IceCOLD installation return air - supply air differential:**

This method is generally used to validate savings when a data logger is not used:

- Gamma Engineering in Mansfield, Texas reported a 24% savings
- Hallek Engineering in Southlake, Texas reported a 24% savings on two RTUs
- Aspen Court Apartments- 18 year old 3 ton York heat pump showed 24% increase in efficiency in 2001. 80 of 85 units still running in 2009.
- Aspen Court Apartments 85 York units were 18 years old when IceCOLD was installed, 80 of these units are still running and they are now 25 years old.
- Beverly Garland Holiday Inn in Hollywood, California 1 1/2 Ton PTAC was 15 years old and calculated 24%
- Turnberry Place Condominiums in Las Vegas, Nevada, a 3 ton water cooled Carrier heat pump showed over 20%.
- At NJ's Residence in Carrollton, Texas a 4 ton DX unit showed a 21% increase in efficiency.
- City of Euless, Texas dorm area at Fire Station #2 5-ton Lennox rooftop calculated a 16% savings.

*(Note many of our customers, such as a large nationwide cell phone company, will not allow us to "publish" their results)*

**Additional installations:**

Texas Sports Hall of Fame, Austin, Texas  
Richardson ISD., Richardson, Texas  
El Paso ISD  
Friendship School, Lubbock, Texas ISD  
St. Mary's School, West Palm Beach, Florida  
Benbrook Nursing Home; Benbrook, Texas  
LA Cold Storage  
Irving Mall; Irving, Texas;  
Baylor Hospital Laundry  
Texas MHMR Hospital laundry, Austin, Texas  
1000 Oaks Inn, Thousand Oaks, California  
Hamilton Inn, Denton, Texas  
Key Storage, Dallas, Texas  
CBRE property Tulsa, Oklahoma  
SMU Faculty Lounge, Dallas, Texas  
Ford Dealer, Cancun, Mexico  
Haagen Dass, Cancun, Mexico  
Mirage Casino Theater, Las Vegas  
Palms Casino Theater, Las Vegas  
Grandy's, Dallas, Texas  
Coney Island, Houston, Texas  
Meza Grill, Houston, Texas  
8531 N. Braunfels Limited, 2 story office building, San Antonio, Texas  
*(and hundreds we do not have permission to "publish")*

plus hundreds of residences and small businesses and thousands of automobiles.

The actual savings mechanism is not the reduction of amperes while running, but the fact that the removal of the oil fouling, the lower refrigerant evaporation temperature, and the lubricity increases make the system 16% (chillers) to 20% (air units) more efficient; causing colder supply air (or faster chiller water cool down) resulting in the equipment running 16% to 20+% less.

When the equipment is not running 16% to 20% of the time, it is not using electricity; and while not running, there are no maintenance labor and parts needs accruing resulting in a 16% to 20% savings in that area, plus the equipment will last 16% to 20% longer since it is running 16% to 20% less.