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## **Cool conservation: An HVAC efficiency strategy that pays for itself quickly**

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As building owners search for efficiency solutions, air conditioning is often considered because HVAC is found to be a significant portion of a buildings energy consumption. To make matters worse, daytime energy like air conditioning has become the bulls-eye on the target to reduce pollutants from aging coal power plants. These plants are still relied on heavily during daytime hours, particularly warm days. It is said that air conditioning and refrigeration is responsible for up to 50% of our nation's energy usage. You can also expect consistently higher daytime rates as time of use metering kicks in. If you don't believe me simply ask a building owner from California, where daytime rates in certain areas were reported to be 4 to 5 times more than those at night. For this reason enormous focus is on air cooling and all available efficiencies. After extensive research one easy and affordable technology proved highly effective, affordable and able to increase efficiency in any cooling unit with a refrigerant line. This strategy involves an advanced refrigerant oil enhancement; it requires no new equipment and will normally show a payback within a year. This product is a specifically blended refrigerant oil supplement that has multiple beneficial attributes when added to the refrigerant line along with the existing refrigerant oil.

ASHRAE states that insulating oil build up will reduce system efficiency by 7% in the first year, 5% in the second, and 2% or more in subsequent years. Normally by the 24th month of operation, system degradation is evident in the reduction of cooling capacity and increase noise and running amps due to the loss of lubricity. This inferior oil oxidizes and insulates the inner surfaces of the heat exchanger thereby impeding heat transfer.

Fortunately an oil lubricant additive exists that serves as an antioxidant and is designed to improve the functionality of the existing oil. As this oil vaporizes and travels throughout the system along with the refrigerant it lubricates and protects all system moving parts and seals. It has a Polarizing Compound which enables the formula to bond to metal on a molecular level. This property enables it to displace the insulating build-up of compressor lubricating oil inside the refrigerant circuit and bond directly to metal surfaces to form a coat with single molecule thin layer. Furthermore, the supplemental oil additive molecule does not allow oil build-up to reform. A superior oil additive will also increase the lubricity of compressor installed oil and reduce wearing on compressor moving parts. This oil supplement was proven to be over 1500 times more effective than standard refrigerant oils and will protect seals, lubricate moving parts and reduce oxidation. This will reduce maintenance and extend system life. This patented supplement will be specifically blended to match the refrigerant type and will work in all reciprocating, rotary, scroll, screw, centrifugal compressors, and walk in refrigeration. Scott Milne from National Energy Technology will be demonstrating this technology along with many other system solutions at the NE Building and Facilities Conference at 2:00 on June 12th at the Boston Convention and Exhibition Center. Visit

[www.NationalEnergyTech.com](http://www.NationalEnergyTech.com) for more information.

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