

# TKG Energy Newsletter

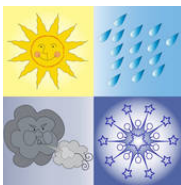
Fourth Quarter 2009

## WEATHER CORRECTION & ENERGY ACCOUNTING

Utility bills tell you how much energy you use each month, what peak demand you reached, and the cost of your energy use. Comparing those bills and the use each month often provides inaccurate results. Weather conditions have a direct impact on a building's energy use and consumption. In order to make accurate and meaningful comparisons, it is important to factor in weather.

Energy Management provides the best opportunity for trimming your budget. With proper energy accounting you can not only identify areas to save but you can also document results. Without weather correction, an energy conservation measure could inaccurately be considered an abysmal failure or a rousing success. If the summer is abnormally hot or a winter unusually cold, a building will use more energy and therefore cost more money that particular year.

Keeping track of how many KWH and how many therms your buildings consume will not tell you the whole story. Comparisons from year to year are not accurate unless weather is taken into account.



## WHERE ENERGY MEETS ENGINEERING

Saving energy has taken on more importance than at any time since the 1970's. Our federal government has made stimulus funds available to local governments and State Energy Programs that make a commitment to saving energy. Unfortunately, saving energy and saving money is not always the same thing. In fact, saving energy is not always as straightforward as it seems.



At The Kelly Group, we bring over 30 years of experience in Energy and Engineering and blend the two to help our clients achieve the best possible savings. Whether your concern is money, energy consumption, or green house gas emissions, our services and energy accounting tool EASY help you evaluate your energy use and make accurate informed decisions. We work hard for our clients and offer a unique variety of services for saving energy and implementing "green" initiatives in design

## FEATURES OF EASY

The Kelly Group's Energy Accounting tool EASY is a highly adaptable product. Using ASHRAE linear regression analysis, local weather data and fuel mixes from the

actual power plants and not just regional averages, EASY provides compelling and accurate data to help you make decisions about how to handle your energy. EASY uses weather correcting, but only on the portion of the load that is actually weather responsive. Below is a summary of some of the newer and modified features of EASY.



**The Avoided Cost report-** This report is good for quantifying the effectiveness of energy conservation measures on a building or group of buildings. It takes a base year and a range of subsequent comparison years and instead of comparing energy cost from one year to the next, it compares the actual energy cost to what the energy cost would have been on the current rates if energy consumption remained constant. This is a more accurate view of money saved because energy rates gradually increase over time. By default, this report weather normalizes the data, but this can be turned off if the building(s) in question are not weather responsive.

### Exception Reports/Import Auditing

This feature is designed to catch anomalies in the data received from utility providers such as consumption or cost that exceeds normal thresholds for a building and gaps in monthly billing for a building. The customer is responsible for the utility costs even if the utility company neglects to send a bill. This feature can save a large accumulated cost that you were not

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expecting by making certain the utility company is sending an accurate bill each month.

**Export Data** – Pick which types of monthly data you want (rate, square footage, demand, consumption), which buildings you want it for, the range of dates, and this will give you the requested data in a generic spreadsheet outside of EASY that may be used in your own reports or calculations, or used as input into a separate system. This report works with electricity, natural gas, and water. This feature will allow you to export data directly to Energy Star Portfolio Manager to determine which buildings might be eligible for the Energy Star rating and to maintain the rating each year.

## SC EO-01 GRANTS

Congratulations to Kershaw County School District and to Spartanburg School District 5! Both districts were awarded the full South Carolina Energy Office 01 grant allocation for their energy efficiency projects. TKG Energy, combining both the Engineering and Energy departments, calculated the estimated annual energy savings and prepared the grants for submittal. Applications for Energy Efficiency grants, both local and federal, often must show an accurate savings estimate. Using building simulations and other generally accepted engineering practices, The Kelly Group was able to provide a clear, concise grant application to the SC Energy Office.



## BEST REASONS FOR ENERGY ACCOUNTING

Before you devise a plan to save energy and implement energy conservation measures, you must first analyze your current situation. You cannot manage what you do not first measure. Below are some of the best reasons for Energy Accounting

**Record energy costs:** Your energy costs depend upon how much energy you use and also how you use it. Energy Accounting allows you to keep track of both consumption and demand and compare cost between buildings.



**Provide a basis for prioritizing energy projects:** Determine which energy conservation measure will realize the most savings

**Evaluate the success of changes in institutional behavior and other energy conservation measures:** By comparing a building's energy performance against its own past performance, you can demonstrate the success of your program.

**Find billing errors:** Energy Accounting allows you to identify when a building is performing outside the limits of normal. Missing data reports will clearly show billing errors.

## ENGINEERING CORNER

TKG Engineering performs mechanical, electrical and plumbing engineering services for a variety of industries. As an Energy Star Partner, we design projects to be as energy efficient as possible. Some of the projects currently underway or recently completed:

- Powell Wellness Center, Culpeper, VA
- Abilene Baptist Church, Martinez, GA
- City of Charlotte Mint Museum Chilled Water Analysis
- Security Central (UL approved monitoring station), Statesville, NC
- Main Street Baptist Church (designed with provision for conversion to geothermal heat pump), Christiansburg, VA
- Energy Star certification for CMGC City of Charlotte
- St. Patrick Catholic Church, Fayetteville, NC
- St. Brendan's Catholic Church, Shallotte, NC
- River School, Washington DC