U.S. Energy Group launches USE-Analysis to define baseline usage and determine peak operating efficiency

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U.S. Energy Group has launched USE-Analysisâ„¢, a large-scale fuel consumption analysis study, which is designed to define the amount of oil, or gas equivalent, that buildings in New York City typically use, and to apply this information to help buildings achieve peak operating efficiency. USE-Analysis, which started with U.S. Energy's existing customers and is now open at no cost to all New York City multi-family (rentals, coops and condos) and commercial buildings, analyzes key building indicators along with historical fuel usage to develop two numbers - the amount of fuel the building is currently using by "degree-day" and the amount it would be using if it were operating at peak operating efficiency. Once these two numbers are known, U.S. Energy Group recommends a "Pathway to Peak Efficiency."

The popular "rule of thumb" has been that a one-bedroom unit uses 525 gallons of fuel per year, or .75 gallons/square foot; however, this is not supported by a credible statistical analysis. U.S. Energy Group recognizes that the only way to understand usage is through "real-world" monitoring and benchmarking. The goal of USE-Analysisâ„¢ is to systematically aggregate existing building data for a large sample of buildings and develop a more accurate portrait - a city-wide benchmark of normative fuel usage.

First, the building owner or manager is asked to supply U.S. Energy Group with information, such as a building's fuel bills for the past two years, the size of the building, the type of heating system the building has (such as steam, vacuum or hot water); and any noteworthy building features (penthouse units, cast-iron or aluminum radiators, etc.). Typically, the fuel information is easy to obtain from suppliers with simple authorization (most fuel companies can easily provide past bills on an account, and some have them available online), and U.S. Energy Group analysts can assist in the process to make it even easier for the building owner or manager.

Next, U.S. Energy Group processes the information, using a specialized database analysis tool. The end-goal is to develop two numbers: the amount of fuel the building is actually using and the amount it is projected to utilize if it were operating at peak operating efficiency. Finally, U.S. Energy Group presents the owner with a Pathway to Peak Efficiency, which is a series of recommendations for the specific building. Managers can reduce their operating costs significantly if the Pathway goals are implemented.

The first phase of USE-Analysis has focused on over a thousand existing customer installations, and U.S. Energy Group studied these buildings' fuel usage before and after the installation of its energy management system (EMS). An energy management system (EMS) uses both the outdoor and indoor temperatures of the building to cycle the boiler more efficiently than the old-style devices, often called 'heat-timers,' which are triggered by outdoor temperature only. Thus far, the findings in this phase of the study have been illustrating that buildings, after installing an EMS, typically reduce

fuel usage by 18-23%, but that the percentage of decrease was dependent on the extent to which the buildings were actively monitored. For example, those customers who paired their EMS with U.S. Energy's USE Manager Online Monitoring System and who promptly responded to system alerts had much better results.

While the first phase continues, U.S. Energy Group has opened the study to all existing multi-family (rentals, coops and condos) and commercial buildings in the New York Metro area, inviting owners and managers to submit information for their buildings. There is no obligation or cost to participate in the study or to receive the Pathway to Peak Efficiency recommendations. U.S. Energy knows the information garnered will help guide its existing customers and build stronger relationships across the real estate industry. For example, the increased data expected in the second phase will facilitate greater categorizing, including norms for each borough, for each type of building and for different heating systems.

This study is crucial to understanding how various categories of buildings use fuel and how to reduce their usage," said Anthony Jabbour, product manager at U.S. Energy Group. "We look forward to having a better understanding of normative usage and helping building owners save money."