# **ENERGY SUMO® ENERGY DASHBOARD**

#### MARKETS WE SERVE

Healthcare Higher Education Hotel & Resort Science & Technology Pharmaceutical & Industrial Commercial Government Senior Living Multifamily Residential

### SERVICES WE OFFER

Analytical LEED MEP Design Commissioning Retro- & Monitoring-Based Commissioning

### **OUR SPECIALTIES**

LEED & Energy Efficiency Consulting MEP Infrastructure Central Utility Plants Commissioning Retro- & Monitoring-Based Commissioning Sustainability Consulting Local Law Compliance Mission Critical Environments LEED Consulting Thermal Energy Storage & Geothermal

## **CHICAGO REGION**

820 Davis Street, Suite 300 Evanston, IL 60201 847.328.3555

## MADISON REGION

7617 Mineral Point Road, Suite 203 Madison, WI 53717 608.278.1890

## MILWAUKEE REGION

1011 N. Mayfair Road, Suite 300 Wauwatosa, WI 53226 414.476.8980

NEW YORK REGION 36-42 Newark St., Suite 402 Hoboken, NJ 07030 847.328.3555

grummanbutkus.com



# UNLOCK THE POWER OF YOUR DATA

**Energy Sumo**® is a visualization tool for reviewing building energy consumption data across a portfolio of buildings. Energy consumption data can be entered manually into the platform, using information from your utility bills, or can be directly integrated from ENERGY STAR Portfolio Manager.

The tool's **Portfolio Dashboard** allows comparison of multiple buildings' annual energy usage benchmarks. This helps identify buildings that may have more opportunity for energy savings. The **Building Dashboard** depicts monthly energy usage for a single facility compared to historical usage and a calculated baseline model.

Energy Sumo helps you monitor building energy usage at a high level. The data is a great supplement to information from a fault detection and diagnostics platform, such as GBA's **Trend Sumo**® analytics platform, which analyzes building automation system data at an interval level. Trend Sumo's focus is getting "into the weeds" to find individual opportunities for energy savings. Energy Sumo's focus is monitoring energy usage at the utility bill level to document building performance over a longer period.

The Energy Sumo baseline model is created using historical energy and weather data and is then applied to current weather data to estimate the baseline equivalent energy usage compared to current energy usage.



# **ENERGY SUMO® ENERGY DASHBOARD**

## **PORTFOLIO DASHBOARD VIEWS**

The Portfolio page provides a summary of the last 12 months' worth of energy usage for each building in a portfolio. Benchmarks can be visualized in multiple ways to help you quickly identify outliers.



Above: Scatter chart showing annual energy usage per square foot (kBtu/sf) on the Y Axis and energy cost per square foot (\$/sf) on the X Axis. Each circle is a property within a multi-building portfolio, and the size of the circle represents the relative total area of the property.



Above: Column chart showing annual energy consumption for a group of hospitals (kBtu/sf/year).



Above: Tree Map view depicts EUI (kBtu/sf) for 19 properties in a portfolio. The size of each box represents the property's relative area, and the color represents the relative EUI (green signifying the lowest EUI, and red the highest).



## **BUILDING DASHBOARD VIEWS**

The individual building monthly energy data can be reviewed on the Individual Building dashboard. The utility bills are automatically calendarized based on each billing period to correct for different billing periods from different utilities. The baseline equivalent energy usage is calculated for each utility meter, and those are summed together to create a total baseline equivalent energy usage. The energy data is typically normalized by square footage to account for building additions, but the non-normalized historical energy usage is also available for simple comparison.



Above: Monthly "energy card" shows that this particular building's electricity, natural gas, and eCO2 readings are all down compared with the past 12 months as well as the baseline.



Monthly Energy Usage by Energy Type

Above: Calendarized energy usage by energy source. Multiple meters for each energy source are combined to show total energy usage per month, broken out by electricity and fossil fuel. This is compared against the baseline equivalent energy usage (blue line).



Baseline Comparison and Rolling EUI

Above: Column chart shows the percentage difference of actual usage compared to baseline usage. The green bars represent months when the actual energy usage was less than the baseline; red bars show months when energy usage was higher than the baseline. The blue line represents the EUI. Overall, the chart shows that the building's actual usage is less than baseline usage and, correspondingly, the EUI is decreasing.



# **ENERGY SUMO® ENERGY DASHBOARD**



Above: Additional individual-building views showing energy usage (MMBtu), including a multi-year line chart (left) and month-over-month column chart (right). Energy Sumo's variety of visualization tools makes it easy to grasp patterns and identify targets for improvement.

## **ENERGY STAR INTEGRATION**

Energy Sumo collects individual building ENERGY STAR scores and compiles this data into a single visualization. This provides a quick overview of how all the buildings in your portfolio are progressing over time. Each line in is a different building. The buildings can also be categorized in groups, with each group assigned a color scheme. That weighted average score for each group can then be calculated. Groups or buildings can be toggled on/off for custom views.



Above: Line chart visualizing ENERGY STAR scores for nine different buildings in a portfolio over a period of about three years, using data from ENERGY STAR's Portfolio Manager. This portfolio includes buildings with a wide range of scores, from a bit over 10 to higher than 80. Scores for specific facilities can be grouped as desired, and buildings or groups toggled on/off, for ease of comprehension.

### HARNESS THE POWER OF UTILITY DATA

To optimize facility and portfolio energy efficiency, it's ideal to use an energy dashboard tool (such as Energy Sumo) in concert with a fault detection and diagnostics tool (such as Trend Sumo). But excellent software is only a tool; interpretation is equally important. GBA's skilled engineers can analyze patterns from both your energy dashboard and your FDD software to help you identify strategies that will yield the greatest reduction in energy use, costs, and greenhouse gas emissions. Contact us for details!

