Building Performance Tracking Success Story

The Aventine

Glenborough’s Aventine facility in La Jolla, California is a living example of how multiple tools and strategies can be combined to create a successful building performance tracking story. The result: an ENERGY STAR® score of 100, a Leadership in Energy and Environmental Design (LEED) Platinum certification, and HVAC issues addressed before they turn into tenant complaints.

Glenborough uses the following tools and services to support its building performance tracking goals:

- **Benchmarking**: ENERGY STAR Portfolio Manager to track progress towards energy savings goals and to prioritize energy-savings investment across their portfolio
- **Third Party Utility Bill Analysis Services**: Contract with Constellation Energy to analyze monthly utility bills and to provide alerts when usage is off-target
- **Automated System Optimization**: Optimum Energy’s OptimumMVM services track chilled water plant performance and automatically optimize settings based on load
- **Building Automation System (BAS)**: Alerton BAS to track key HVAC system performance indicators and follow up on alerts reported through other performance tracking tools

The combination of these tools enables Glenborough to 1) directly track system performance and 2) identify anomalies in energy use, thereby covering the two key elements of building performance tracking.

Performance tracking tools do not guarantee improved building performance on their own. Equally important are the management strategies that support the use of tools.

“Decisions made now will be with the building for five, ten, maybe even twenty-five years.”

— Carlos Santamaria, LEED AP
Director of Engineering, Glenborough, LLC

### Quick Facts

<table>
<thead>
<tr>
<th>FACILITY NAME:</th>
<th>Aventine</th>
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<tbody>
<tr>
<td>OWNER:</td>
<td>Glenborough, LLC</td>
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<td>WEBSITE:</td>
<td><a href="http://www.glenborough.com">www.glenborough.com</a></td>
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<tr>
<td>LOCATION:</td>
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<tr>
<td>TYPE:</td>
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<td>GROSS SQUARE FOOTAGE:</td>
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<td>ENERGY USE INDEX:</td>
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<td>ENERGY STAR® SCORE:</td>
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<td>LEED RATING:</td>
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**PERFORMANCE TRACKING STRATEGIES:**

- Energy Benchmarking
- Utility Bill Analysis
- Building Automation System (BAS)
- Automated System Optimization

**What is Building Performance Tracking?**

The process of monitoring facility data on a regular basis to continually improve building energy performance. The four steps below detail the fundamental process for tracking, analyzing, diagnosing, and resolving issues with heating, ventilation, and air conditioning (HVAC) and lighting systems.

1. Collect data and track performance
2. Detect performance issues
3. Diagnose issues and identify solutions
4. Fix issues and verify results

Building performance is tracked on an ongoing basis and incorporated as part of standard processes.
Building Performance Tracking 101

Elements of a supportive working environment:

- **Clear goals**
- **Time and resources to utilize tools, analyze identified issues, and perform corrective action**
- **Sufficient training on tool capabilities**
- **Incorporate energy performance metrics in management reporting**
- **Communication among stakeholders**
- **Support from facility managers, building operators, financial decision-makers and senior management**
- **Direct digital controls and building-level energy meters**
- **IT support and server storage**

Glenborough tracks chiller efficiency, CO₂ and cost savings with its OptimumMVM tool

Lessons Learned

Glenborough's Aventine facility learned lessons implementing building performance tracking tools that are widely applicable to organizations with similar objectives:

- Achieve buy-in and participation from corporate management and site engineers.
- Use third-party providers for energy management services if in-house engineering time is limited.
- Maintain awareness of facility operation by making the viewing of dashboards and reports part of daily operations.

Glenborough's Aventine facility is a shining example of using Building Performance Tracking to increase Net Operating Income (NOI) and enhance asset value, thereby maintaining competitiveness in the highly challenging multi-tenant commercial real estate market.

“Information must be actionable. Make the information work for you.”

— Carlos Santamaria, LEED AP
Director of Engineering, Glenborough, LLC

About this Success Story

This case study was developed by the California Commissioning Collaborative (CCC) with funding from the California Energy Commission's Public Interest Energy Research (PIER) program.

For more information, contact the CCC at

Email: info@cacx.org
Phone: 877-306-CACX

View more case studies and download a free copy of The Building Performance Tracking Handbook at http://www.cacx.org/PIER/handbook.html