Agenda

Introduction

What is Post-Occupancy Evaluation?
  ◦ Value Proposition
  ◦ Process

Case Studies
  ◦ Non-Profit: Parks & People
  ◦ Multifamily Residential: Radian

Wrap-Up / Recap
What is Post-Occupancy Evaluation (POE)?

• POE is a high-level evaluation of MEP system performance and overall occupant experience.

• The project team revisits the site 1-3 years after substantial occupancy.

• The project team issues a report summarizing findings and makes recommendations for improvement.
Value Proposition: Client

- Engages the design team during/beyond the warranty period
- Enhances owner understanding of their building and design intent
- Provides recommendations for improved operations
- Outlines corrective actions for issues
Value Proposition: Design Team

- Solicits candid feedback on building design, maintainability, and performance
- Analyzes real-life performance data to evaluate design decisions, lessons learned
- Follows up on commitments made by the project (EUI, IEQ metrics, etc.)
- Deepens the client relationship
- Opportunities to conduct energy audits and retrocommissioning
How is POE Different From...

- **M&V or an energy audit?**
  - POE is not focused solely on energy consumption
  - POE does not include energy model calibration

- **retro-commissioning?**
  - POE occurs before retro-Cx
  - POE does not alter system operations

POE is a higher-level and shorter process than either of these activities.
POE Process

- Follow up with the owner 1-3 years after occupancy
- Outline POE process and value proposition
  - Send questionnaire
  - Request utility data
  - Schedule site visit
- Evaluate utility data, compare to energy model
POE Process

Questionnaire and Interviews

• Building controllability and complexity
• Equipment maintenance and warranty issues
• Energy performance
• Physical installation
• Project closeout & training
• Occupant comfort
• Overall occupant experience

<table>
<thead>
<tr>
<th>Assessment Area</th>
<th>Score (out of 5)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>General System Performance</td>
<td>★★★★☆</td>
<td>Controls issues stem from the user interface and the interaction between the master controls and the individual system control.</td>
</tr>
<tr>
<td>Building Controllability</td>
<td>★★★★</td>
<td>The energy performance has not been calibrated with the model. However, the overall energy use is for the whole building is inline with the model.</td>
</tr>
<tr>
<td>Energy Performance</td>
<td>★★★★</td>
<td>There have been few issues with actual installation. However, the water heater was placed in a way that has made the access to instantaneous hot water slightly limited. The hot water takes a few minutes to occur in the showers that are across the building.</td>
</tr>
<tr>
<td>Physical Installation</td>
<td>★★★★☆</td>
<td>The building has been well maintained although the controls specialists have not been easy to be in contact with. A potential next step would be to work with BGE to determine whether lighting rebates are available.</td>
</tr>
<tr>
<td>Project Closeout</td>
<td>★★★★☆</td>
<td>The occupants have been very satisfied with room-level thermal comfort, temperature control, and layout. The lighting glare has been an issue occasionally but the shades can be drawn and tend to alleviate the problem.</td>
</tr>
<tr>
<td>Occupant Experience</td>
<td>★★★★☆</td>
<td></td>
</tr>
</tbody>
</table>
POE Process

- Conduct site visit:
  - Interview owner and occupants
  - Interview facilities staff
  - Inspect the building systems

- Issue report with findings and corrective actions

- Follow up with owner to review findings and next steps
POE Process

Report and Follow-Up

• Document questionnaire and interview findings
• Provide analysis of energy performance vs.
  • Modeled design
  • Similar buildings (i.e. Benchmarking)
• Suggest corrective actions
• Review lessons learned
• Celebrate what went right!

Intro What is POE?/Process Case Studies Recap
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Wrap-Up / Recap
Case Study # 1

The Sally & Butch Michel Center for Parks and People
Baltimore, MD

Parks and People is a Baltimore non-profit which works to revitalize neighborhoods and communities through hands-on cleaning and greening of the natural environment.
Case Study #1
Center for Parks and People

- Historic renovation of Park Superintendent House
- New construction of offices and community rooms

Headquarters building (10,000 SF)
Superintendent’s building (4,700 SF)