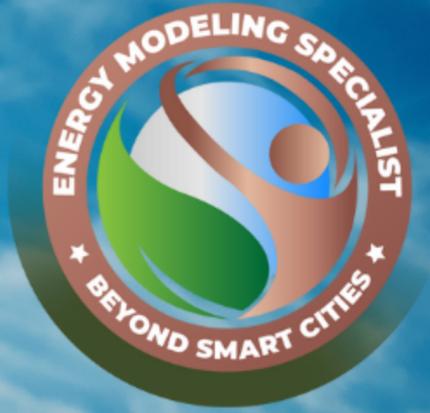


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# INTERPRETATIONS OF ENERGY MODEL RESULTS

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# Reconcile Anomalies Using single Time-Step Reports.

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# INTERPRETATIONS OF ENERGY MODEL RESULTS

Building energy modeling (BEM) is crucial for designing and operating energy-efficient buildings. However, anomalies in data can lead to skewed results. Recognizing irregularities like outliers, spikes, or trends is essential. Single time-step reports offer a detailed analysis of energy consumption over time, providing a granular view.

# Learning Objectives

- Introduction and Course Outline
- Reconcile Anomalies Using single Time-Step Reports.
- Analyzing and Comparing Modeling Results
- Economic Analysis
- Sensitivity Analysis
- Exceptional calculation methods
- Building Energy Modeling Project Deliverables
- Interpreting Model Results
- Sample Energy Modeling Report
- Summary and Resources
- BEMP Practice Test V.5.1



## INTRODUCTION

- Building energy modeling (BEM) is crucial for designing and operating energy-efficient buildings.
- Anomalies, irregularities in data, can lead to skewed results and misinterpretations.
- Reconciliation involves identifying the nature of irregularities, such as outliers, spikes, or trends.
- Single time-step reports provide a granular view of energy usage at specific intervals.
- Steps include data validation, baseline comparison, cross-referencing with operational events, adjustment of model parameters, documentation and reporting, and iterative review.
- This structured approach ensures reliable and actionable energy consumption predictions, contributing to energy conservation and cost efficiency.

# RECONCILING ANOMALIES USING SINGLE TIME-STEP REPORTS IN BEM

## Understanding Anomalies in Building Energy Modeling

- Anomalies in Building Energy Modeling (BEM) can arise from sensor inaccuracies, data entry errors, external environmental factors, or misalignments in modeling assumptions.
- Common types of anomalies include outliers, spikes, and tre



# SINGLE TIME-STEP REPORTS IN BUILDING ENERGY MODELING



- These reports provide a granular view of energy usage at specific intervals.
- They compile data from various building systems, allowing for a detailed analysis of energy consumption over time.

# STEPS TO RECONCILE ANOMALIES

- Data Validation: Check for discrepancies in sensor readings.
- Baseline Comparison: Compare anomalous data against historical baselines.
- Cross-Referencing with Operational Events: Correlate the identified anomalies with operational events or changes in building occupancy.
- Adjustment of Model Parameters: Adjust the model parameters if the anomaly is due to incorrect model assumptions.
- Documentation and Reporting: Document the findings and steps taken during the reconciliation process.
- Iterative Review: Continuous monitoring and iterative reviews of the energy data can help refine the model further and identify new anomalies.



# CONCLUSION



- Reconciling anomalies using single time-step reports is a vital practice in building energy modeling.
- This structured approach aids in addressing current anomalies and establishing a robust framework for future energy modeling endeavors.

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