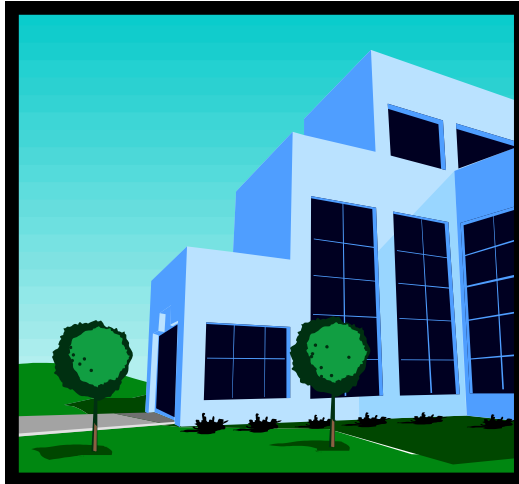


# Energy Analysis Report

[Facility Name]

[Facility Address]

[Facility City, Zip Code]



[Facility Photograph]

Prepared by:

[Auditor]

[Auditor Contact Information]

[Report Date]

# Instructions for Use of This Energy Analysis Report Template

This template is designed to provide a general and flexible guideline for preparation of an Energy Analysis Report. **The preparer of any energy analysis reports using this template agrees that they are solely responsible for all language contained within this template.** Some template sections may not be applicable to your specific report. In addition, your report may benefit from the inclusion of sections that are not outlined in this template. It is important that you use your best judgment in adding and removing sections as is appropriate for your individual situation.

In this template, all text contained within [brackets] contains instructions or a summary of what to include in the section, and is designed to be replaced with specifics from your analysis. For example, when you begin adapting the cover page, click on [Facility Name] and replace that generic placeholder with the name of your facility. Continue with [Facility Address], etc.

This template includes headers and footers which will appear in your printed document. The footer content automatically numbers the pages of the report, beginning with i, ii, etc. on pages between the cover sheet and the page where the Executive Summary begins. Beginning with the Executive Summary page, the footer automatically numbers the pages 1, 2, etc. It will be necessary for you to manually insert page numbers into the Table of Contents list, corresponding to the page on which each section can be found. To edit the generic placeholders [Auditor], [Auditor Logo], and [Facility Name], which begin in the header and footer on Page 1, right-click on each field to “edit field”. To edit the header or footer in Word 2003, go to the “View” menu and select “Header and Footer”. From the created window you can insert auto text for variables like author and date. To edit the header or footer in Word 2007, click on the “Insert” tab, click on “Header” or “Footer”, and then choose “Edit Header” or “Edit Footer”. When editing is complete, click on “Close Header and Footer” within the “Design” tab to return to the body of the report.

**DELETE THE CONTENTS OF THIS INSTRUCTION PAGE  
PRIOR TO COMPLETION OF YOUR REPORT**

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Billing Rates and Data Analysis, Benchmark Score.....	[#]
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## **DISCLAIMER – edit as required**

The intent of this energy analysis report is to estimate energy savings associated with recommended upgrades to the systems at the analyzed facility. Appropriate detail is included in this report to make decisions about implementing energy efficiency measures at the facility. However, this report is not intended to serve as a detailed engineering design document, as the description of the improvements are diagrammatic in nature only in order to document the basis of energy savings cost estimates, and to demonstrate the feasibility to implement the improvements.

While the recommendations in this report have been reviewed for technical accuracy and are believed to be reasonably accurate, the findings are estimates and actual results may vary. The “auditing company” is not liable if projected estimated savings or economics are not actually achieved. All savings and cost estimates in the report are for informational purposes, and are not to be construed as a design document or as guarantees. In no event will the “auditing company” be liable for the failure of the customer to achieve a specified amount of energy savings, any operational issues that arise in the customer’s facilities, or any incidental or consequential damages of any kind in conjunction with this report or the installation of recommended measures.

EXECUTIVE SUMMARY

[Enter here an overview of the analysis results and recommendations.]

[Enter here a summary of proposed energy saving measures]

[Complete table below with energy savings measures]

Recommended Energy Saving Measures and Estimated Savings

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure 1						
Measure 2						
Measure 3						
Measure 4						

[Enter here a summary of any proposed Demand Response Measures]

### Recommended Demand Response Measures and Estimated Savings

Measure	Description of Measure	Demand Reduction (kW)	Annual Savings (\$)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						
Measure #						

[Enter here a summary of any proposed Self Generation Measures]

### Recommended Self Generation Measures and Estimated Savings

Measure	Description of Measure	Generation Produced (kW)	Annual Savings (\$)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						
Measure #						

## PROJECT INFORMATION

[Enter here a description of the project, including:]

[Building description]

[Schedules, occupancy variation, usage patterns]

### Building Occupancy Schedule

Area/ Zone	Square Footage	Weekdays			Weekends / Holidays		
		Hours		# of People	Hours		# of People
		From	To		From	To	

### HVAC Operating Schedule

Day	Equipment Operating Time
Weekdays	
Weekends/Holidays	

[Comfort and other operational requirements]

[Rate description and billing data analysis]

**Summary of Electricity Usage:**

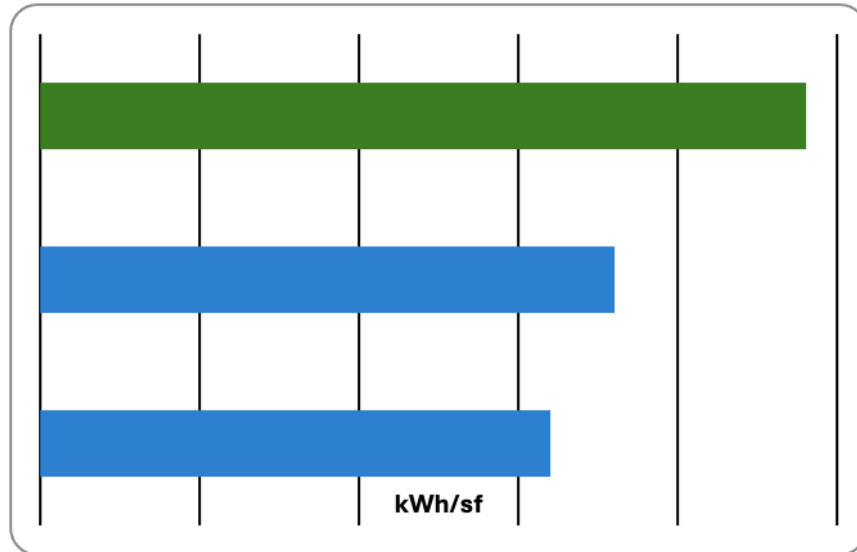
Month/Year	Peak Demand (kW)	Energy Usage (kWh)	Avg. Daily Usage (kWh/day)	Total Cost (\$)	Unit Cost (\$/kWh)
TOTAL					

**Summary of Natural Gas Usage:**

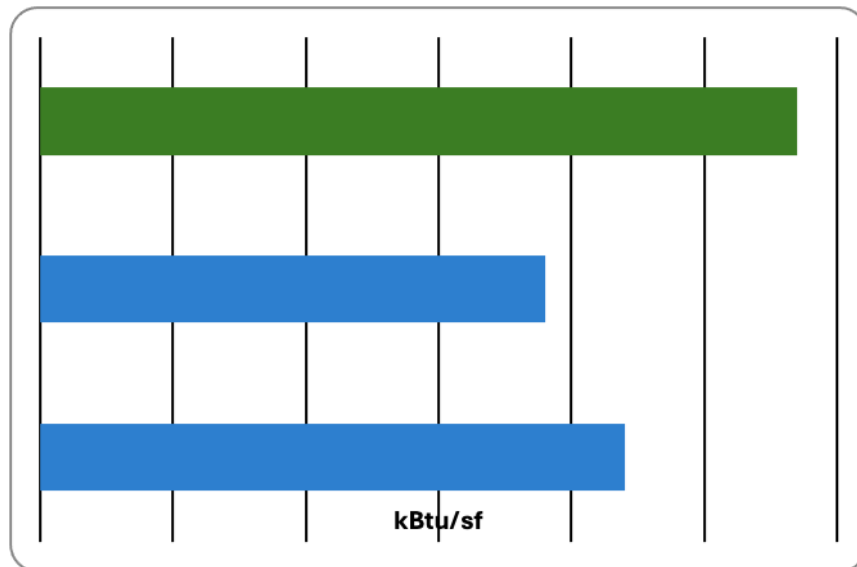
Month/Year	Gas Usage (Therms)	Avg. Usage (Therms/Day)	Gas Cost (\$)	Unit Cost (\$/Therm)
TOTAL				

[Provide benchmarking scores and explanation]

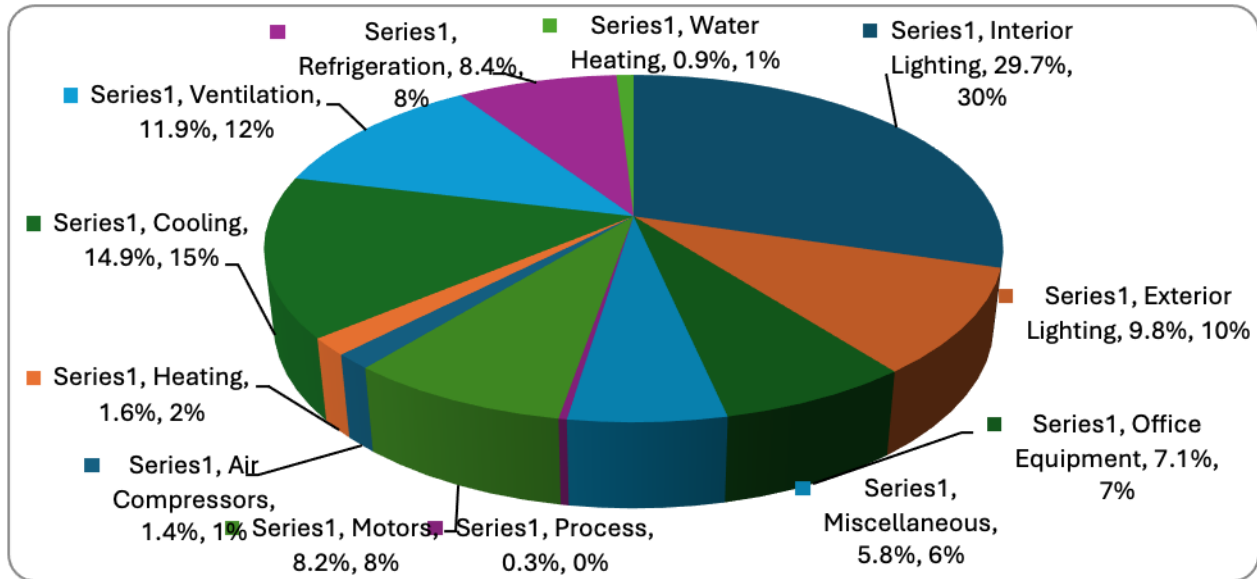
### Electricity Benchmarking



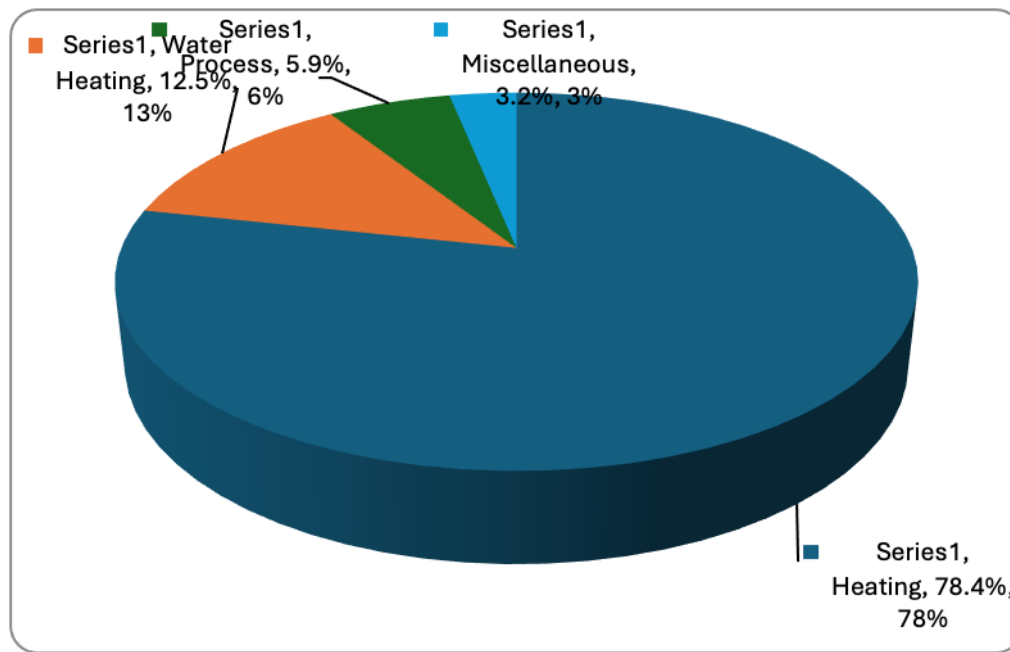
### Natural Gas Benchmarking



[Commercial Building End-Use Survey (CEUS) data]

**Electric Usage by End-Use**

### Natural Gas Usage by End-Use



[Audit scope of work]

[Description of relevant lighting systems and controls]

[Optional: provide table of lighting equipment]

### Lighting

Building Area	Lamp Type Fixture Type	Approximate Number of Fixtures	Average Watts per Fixture	Operating Hours/Day	Average Foot- candles

[Description of relevant mechanical systems and controls]

[Optional: provide table of mechanical equipment]

### Mechanical Equipment

Equipment Name/Number	Motor Use	Area Served	Motor Size (hp)	Quantity of Motors	Efficiency
AHU-1	Supply Fan				

[Description of relevant miscellaneous systems]

[Optional: provide table of miscellaneous equipment]

### Miscellaneous Equipment

Equipment Name/Number	Motor Use	Area Served	Load Used	Quantity	Efficiency

[Description of relevant envelope systems]

[Optional: provide table of glazing, insulation, and roof treatment]

	Area (sq. ft.)	Material Type	Direction Facing
Doors			
Glass			

	Area (sq. ft.)	Material Type	Insulation Type	Insulation Thickness
Walls				
Roof				

## ENERGY SAVINGS MEASURES

### NO-COST MEASURES

**MEASURE [#] - [Name of Measure #]**

[Enter description of Measure #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

**Measure [#] - [Name of Measure #]**

[Enter description of Measure #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

## LOW-COST MEASURES

### Measure [#] - [Name of Measure #]

[Enter description of Measure #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

### Measure [#] - [Name of Measure #]

[Enter description of Measure #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

## INVESTMENT-GRADE MEASURES

### Measure [#] - [Name of Measure #]

[Enter description of Measure #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

### Measure [#] - [Name of Measure #]

[Enter description of Measure #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

**DEMAND RESPONSE STRATEGIES****[an optional section that may or may not apply]****DR [#] - [Name of DR #]**

[Enter description of DR #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Demand Reduction (kW)	Annual Savings (\$)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

**DR [#] - [Name of DR #]**

[Enter description of DR #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Demand Reduction (kW)	Annual Savings (\$)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

## PROPOSED SELF-GENERATION OPPORTUNITIES

[an optional section that may or may not apply]

**SG [#] - [Name of SG #]**

[Enter description of SG #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Generation Produced (kW)	Annual Savings (\$)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

**SG [#] - [Name of SG #]**

[Enter description of SG #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Generation Produced (kW)	Annual Savings (\$)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

## MEASURES ANALYZED BUT NOT RECOMMENDED

### Measure [#] - [Name of Measure #]

[Enter description of Measure #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

### Measure [#] - [Name of Measure #]

[Enter description of Measure #]

[Include photo, project savings, benefits, cost, incentives, financial analysis]

Measure	Description of Measure	Annual Savings (kW)	Annual Savings (kWh)	Estimated Implementation Cost	Simple Payback (years)	Internal Rate of Return (%)
Measure #						

## APPENDICES

[Provide supporting information including:]

[Calculations]

[Documentation on assumptions]

[Implementation notes]

[Emission reductions]

[Measurement and verification protocols]

# BEST Center Curricula, Resources & Recordings

## Academic Programs

Georgia Piedmont Technical College - Building Automation Systems

Milwaukee Area Technical College - Sustainable Facilities Operations

Laney College - Commercial HVAC Systems

City College San Francisco - Commercial Building Energy Analysis & Audits

## Professional Development Materials, Presentations & Videos

National Institutes

Building Automation Systems Instructor Workshops

Webinars (e.g., BEST Talks)

## Faculty Profile Videos

## Reports & Case Studies

## Marketing Resources

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