



Facility Energy Audit and Benchmarking Action Plan

A Phase-Based Guide for Facility Managers and Building Engineers to Establish Energy Baselines, Select the Right Audit Scope, Prioritize Findings, and Build the Executive Case for Energy Investment

How to Use This Action Plan

This planner walks facility managers and building engineers through four phases of energy management - from establishing a performance baseline through prioritizing improvement investments and presenting the financial case to leadership. Work through each phase in sequence. Use the fillable sections to capture your building's specific data, findings, and investment priorities. Retain completed sections as your energy management planning record and update annually before budget planning season.

**Target: Baseline established and audit scope selected before the next budget planning cycle.
Improvement priorities identified and investment case prepared for leadership presentation.**

PROPERTY INFORMATION

Field	Details
Property Name / Address	
Building Type	
Gross Floor Area (sq ft)	
Year Built	
Primary Fuel Types	☐ Electricity ☐ Natural Gas ☐ Steam ☐ Other: _____
Number of Buildings in Portfolio	
Chicago Energy Benchmarking Ordinance Coverage	☐ Covered - 50,000 sq ft or greater ☐ Not covered ☐ Unsure - confirm
ENERGY STAR Portfolio Manager Account	☐ Active - Score: _____ ☐ Not yet set up
Last Formal Energy Audit	☐ Never ☐ Level 1 - Date: _____ ☐ Level 2 - Date: _____ ☐ Level 3 - Date: _____
Annual Energy Spend (approximate)	Electricity: \$ _____ Natural Gas: \$ _____ Total: \$ _____

PHASE 1: ESTABLISH YOUR ENERGY BASELINE

Before identifying opportunities, understand where the building stands. A baseline tells you what the building is consuming, what it costs, and how it compares to similar buildings nationally.

Step 1A - Set Up or Update ENERGY STAR Portfolio Manager

- ☐ ENERGY STAR Portfolio Manager account confirmed active at portfoliomanager.energystar.gov - or new account created
- ☐ Property added to Portfolio Manager with correct building type, gross floor area, and occupancy characteristics
- ☐ At least 12 months of utility data entered for all fuel types - electricity, natural gas, steam, and any other fuels the building consumes
- ☐ For Illinois facilities - ComEd and Nicor Gas automatic data upload confirmed where available - eliminates manual entry burden and keeps record current
- ☐ ENERGY STAR Score confirmed for property type - note that not all property types receive a 1-100 score; source energy use intensity (EUI) is available for all types
- ☐ For Chicago facilities - Portfolio Manager account confirmed connected to Chicago Energy Benchmarking reporting template - annual report due to City of Chicago by June 1

Current ENERGY STAR Score: _____ Current Source EUI (kBtu/sq ft): _____ Score Date: _____

What Your Score Means

ENERGY STAR Score	Performance Level	Implication
75-100	Top performer - outperforming 75%+ of similar buildings	Eligible for ENERGY STAR certification. Maintain and document.
50-74	Above median - performing better than half of similar buildings	Identify specific improvement opportunities to close gap to top performer range
25-49	Below median - consuming more than half of similar buildings	Priority audit candidate. Meaningful improvement opportunity likely exists.
Below 25	Significant underperformer	High-priority audit. Energy waste is substantial and the investment case is strong.

Step 1B - Establish Your Utility Cost Baseline

Complete for the most recent 12-month period. This is the financial baseline against which improvement returns will be measured.

Utility	Annual Consumption	Annual Cost	Cost per Unit	Prior Year Cost	Year-Over-Year Change
Electricity (kWh)		\$	\$/kWh	\$	%
Natural Gas (therms)		\$	\$/therm	\$	%
Steam (Mlb or MMBtu)		\$		\$	%
Other: _____		\$		\$	%
Total Energy Spend		\$		\$	%

Demand Charge Analysis

Field	Your Data
Estimated demand charge component of annual electricity bill	\$
Demand charge as percentage of total electricity bill	%
Highest recorded peak demand in past 12 months (kW)	
Month of highest peak demand	
Known operational causes of peak demand	

Note: Demand charges often represent 30-50% of a commercial electricity bill. Reducing peak demand is frequently the highest-return energy management opportunity available without capital investment.

Step 1C - Baseline Assessment Summary

Use this section to summarize where the building stands before any improvement investment.

Metric	Your Building	National Median for Building Type	Gap
ENERGY STAR Score		50	
Source EUI (kBtu/sq ft)		(from Portfolio Manager)	
Annual energy cost per sq ft	\$	\$	\$
Year-over-year energy cost change	%		

If your building's ENERGY STAR Score is below 50 or your energy cost per square foot is above the national median for your building type, a formal energy audit is warranted. The gap between your current performance and median performance represents a quantifiable dollar amount that improvement investment could recover. Estimated annual cost of performing at median vs. current performance:

(Current energy cost per sq ft - median energy cost per sq ft) x gross floor area = \$_____

PHASE 2: SELECT AND PLAN YOUR ENERGY AUDIT

Match the audit level to your facility's size, complexity, and the confidence level you need to support investment decisions.

Step 2A - Select Your Audit Level

Audit Level	What It Includes	Best For	Typical Cost Range
Level 1 - Walkthrough Assessment	Site walkthrough, utility bill review, preliminary identification of low-cost and capital improvement opportunities	First audit for any facility - establishes whether deeper investigation is warranted	\$2,000-\$5,000 for mid-size commercial building
Level 2 - Survey and Analysis	All Level 1 work plus instrumented measurement, detailed engineering analysis, quantified savings and payback projections for each measure	Facilities that have completed Level 1 or where specific inefficiencies are suspected and investment guidance is needed	\$5,000-\$20,000 depending on building complexity
Level 3 - Investment Grade	All Level 2 work plus detailed computer simulation, comprehensive measurement and verification planning, high-confidence financial analysis	Major capital investment decisions requiring rigorous engineering justification	\$20,000+ depending on scope

Audit Level Selected: ☐ Level 1 ☐ Level 2 ☐ Level 3

Rationale for Selection: _____

Step 2B - Audit Preparation Checklist

Complete before the audit is conducted to ensure the auditor has access to the information and systems needed to deliver a complete assessment.

Documentation to Prepare

- ☐ 24 months of utility bills for all fuel types - electricity, natural gas, steam, and other fuels
- ☐ Building floor plans and mechanical system drawings where available
- ☐ Equipment inventory for all major energy-consuming systems - HVAC, lighting, plug loads, process equipment
- ☐ Existing service records and PM documentation for mechanical systems
- ☐ BAS trend logs and control sequences where available
- ☐ Prior energy audit reports if any exist
- ☐ List of known comfort complaints, operational issues, and systems suspected of underperformance

Access to Confirm

- ☐ Mechanical rooms and rooftop equipment accessible on audit date
- ☐ BAS access confirmed for auditor - read-only access to trend data and control sequences
- ☐ Utility meter access confirmed - all meters readable by auditor
- ☐ Tenant spaces accessible where applicable and tenant cooperation confirmed
- ☐ Key facility staff available during audit to answer operational questions

Step 2C - Auditor Selection Criteria

Use these criteria when selecting an energy auditor or requesting qualifications from prospective firms.

- ☐ Auditor holds relevant credential - Certified Energy Auditor (CEA), Certified Energy Manager (CEM), or Licensed Professional Engineer with energy audit experience
- ☐ Auditor has documented experience with commercial buildings of similar type and size

- ☐ Auditor scope includes instrumented measurement - not limited to visual walkthrough and utility analysis for Level 2 engagement
- ☐ Auditor deliverable confirmed to include: quantified savings estimates, implementation cost estimates, and simple payback calculations for each identified measure
- ☐ For Chicago facilities: auditor confirmed qualified to perform data verification under Chicago Energy Benchmarking Ordinance requirements if verification year coincides with audit
- ☐ References from comparable commercial building audits confirmed and contacted

PHASE 3: PRIORITIZE FINDINGS AND BUILD THE IMPROVEMENT PLAN

An audit produces findings. This phase converts findings into a prioritized action plan with investment estimates, projected returns, and a sequencing rationale.

Step 3A - Findings Prioritization Framework

Use this framework to categorize audit findings by investment requirement and return profile. Complete one row per identified measure. Add more rows as needed.

Measure	System / Location	Estimated Annual Savings	Implementation Cost	Simple Payback	Available Utility Incentive	Net Cost After Incentive	Net Payback	Priority
		\$	\$	Years	\$	\$	Years	☐ High ☐ Med ☐ Low
		\$	\$	Years	\$	\$	Years	☐ High ☐ Med ☐ Low
		\$	\$	Years	\$	\$	Years	☐ High ☐ Med ☐ Low
Totals		\$	\$		\$	\$		

Priority Assignment Guide

- High - Payback under 3 years, or measure addresses safety or compliance risk, or measure is a prerequisite for other improvements. Recommend for current budget cycle.
- Medium - Payback 3-7 years, or measure addresses developing equipment condition that will become more expensive to address later. Recommend for next 1-2 budget cycles.
- Low - Payback over 7 years, or measure is dependent on planned equipment replacement. Monitor and incorporate into replacement planning.

Step 3B - Illinois Utility Incentive Programs

Complete this section before finalizing improvement costs and payback calculations. Utility incentives directly affect the financial case for every measure.

ComEd Energy Efficiency Program

- ☐ ComEd commercial program review completed - qualifying measures identified
- ☐ Pre-approval requirements confirmed for measures requiring pre-project application
- ☐ Incentive amounts confirmed for each qualifying measure and entered in Step 3A table
- ☐ Application deadlines confirmed - some measures require pre-project notification before work begins

ComEd commercial program information: www.comed.com/WaysToSave



Nicor Gas Energy Efficiency Program

- ☐ Nicor Gas commercial program review completed - qualifying measures identified
 - ☐ Free building energy assessment requested if not yet completed - available at no cost to Nicor Gas commercial customers
 - ☐ Incentive amounts confirmed for each qualifying measure and entered in Step 3A table
- Nicor Gas commercial program information: www.nicorgasrebates.com

Federal Tax Incentives

- ☐ Section 179D commercial building energy efficiency tax deduction applicability confirmed with tax advisor for qualifying improvements
 - ☐ Investment Tax Credit applicability confirmed for any renewable energy measures under consideration
- Total estimated utility incentives across all measures: \$ _____
- Total estimated improvement cost before incentives: \$ _____
- Total estimated improvement cost after incentives: \$ _____

Step 3C - No-Cost and Low-Cost Measures

Operational improvements that require no capital investment. Implement immediately - these do not require budget approval.

- ☐ Heating and cooling setback schedules reviewed and optimized - confirm setbacks are actually occurring and achieving target temperatures
 - ☐ Equipment startup sequences reviewed - staggered startup implemented to reduce coincident peak demand
 - ☐ After-hours equipment operation reviewed - confirm HVAC, lighting, and plug loads are not operating in unoccupied spaces during unoccupied periods
 - ☐ Thermostat and sensor calibration verified - miscalibrated sensors cause systems to respond to conditions that do not exist
 - ☐ Economizer operation confirmed during appropriate outdoor air conditions - free cooling opportunity being captured where available
 - ☐ Compressed air system leaks identified and repaired where applicable
 - ☐ Vending machine and plug load controls implemented where applicable
- Estimated annual savings from no-cost measures: \$ _____

PHASE 4: BUILD THE EXECUTIVE CASE FOR ENERGY INVESTMENT

Use this framework to present energy improvement investment to finance and operations leadership in terms they can act on.

Step 4A - Executive Summary Template

Complete and present to leadership before budget submission.

Current Performance

Our facility is currently performing at an ENERGY STAR Score of , **which places us in the _____ percentile of similar buildings nationally. Our annual energy spend is \$**, representing \$_____ per square foot. The national median for our building type is approximately \$_____ per square foot. The gap between our current performance and the national median represents an estimated \$_____ in annual excess energy cost.

Audit Findings Summary

A Level _____ energy audit conducted by _____ identified _____ improvement measures with a combined estimated annual savings of \$. **Total implementation cost before utility incentives is \$**. Available utility incentives from ComEd and Nicor Gas reduce net implementation cost to \$_____. The aggregate simple payback on the full improvement package is _____ years.

Priority Investment Recommendation

We recommend proceeding with the following High-priority measures in the current budget cycle:

Measure	Net Cost	Annual Savings	Payback
	\$	\$	Years
	\$	\$	Years
	\$	\$	Years
Total	\$	\$	Years

Cost of Inaction

Deferring these investments means absorbing \$_____ in annual excess energy cost for each year action is delayed. At current utility rates, a one-year deferral of the full improvement package costs the organization approximately \$_____ in energy spend that would have been avoided.

Step 4B - Compliance Context for Chicago Facilities

Include this section when presenting to leadership at Chicago-area facilities covered by the benchmarking ordinance.

Our building is subject to the Chicago Energy Benchmarking Ordinance, which requires annual energy reporting to the City of Chicago using ENERGY STAR Portfolio Manager by June 1 of each year. Our benchmarking data is publicly available on the Chicago Data Portal. Our current ENERGY STAR Score of _____ is visible to prospective tenants, investors, and the public.

Buildings that demonstrate improving energy performance over time are positioned advantageously in a commercial real estate market where energy performance is increasingly a tenant selection and financing criterion. The improvement investments recommended above are projected to improve our ENERGY STAR Score from _____ to approximately _____ over _____ years - moving us from the _____ percentile to approximately the _____ percentile for our building type.

Step 4C - Portfolio Performance Summary

For facility managers responsible for multiple buildings - use this summary to present portfolio-level energy performance and prioritize improvement investment across properties.

Property	ENERGY STAR Score	Annual Energy Cost	Cost per Sq Ft	Score vs. Median	Improvement Priority
		\$	\$	Above / Below	☐ High ☐ Med ☐ Low
		\$	\$	Above / Below	☐ High ☐ Med ☐ Low
		\$	\$	Above / Below	☐ High ☐ Med ☐ Low
		\$	\$	Above / Below	☐ High ☐ Med ☐ Low
		\$	\$	Above / Below	☐ High ☐ Med ☐ Low
		\$	\$	Above / Below	☐ High ☐ Med ☐ Low
		\$	\$	Above / Below	☐ High ☐ Med ☐ Low
		\$	\$	Above / Below	☐ High ☐ Med ☐ Low

Properties with ENERGY STAR Scores below 50 or energy costs significantly above portfolio average should be prioritized for audit and improvement investment.

ANNUAL ENERGY MANAGEMENT REVIEW CHECKLIST

Complete once per year before budget planning season to confirm the energy management program is current and improvement progress is being tracked.

- ☐ ENERGY STAR Portfolio Manager record updated with current year utility data - score and EUI current
- ☐ For Chicago facilities - annual benchmarking report submitted to City of Chicago by June 1 deadline
- ☐ Current ENERGY STAR Score compared against prior year - improvement or deterioration noted and explained
- ☐ Utility cost baseline updated with current year actual spend



- ☐ Implemented improvements verified producing projected savings - actual savings compared against audit projections
- ☐ Any measures where actual savings are below projection - investigated and corrective action identified
- ☐ Remaining improvement measures reviewed - priority ranking confirmed current and budget submission updated
- ☐ ComEd and Nicor Gas incentive programs reviewed for current year - program updates confirmed and new qualifying measures identified
- ☐ Any buildings added to portfolio since last review - benchmarked in Portfolio Manager and assessed for audit priority
- ☐ Portfolio performance summary updated and presented to leadership before budget submission deadline