

ENERGY & WATER AUDIT

What an Energy & Water Audit Delivers — and When You Need One

Automated bill management catches billing errors. Rate reviews identify tariff opportunities. But neither tells you what's actually happening at the building level — which equipment is running inefficiently, where water is being wasted, and what on-site changes would reduce consumption before the bill even arrives. That's what an audit does.

15–30%

Typical consumption reduction potential identified through a Level II energy audit

10–25%

Water cost savings achievable through audit-identified leak and fixture upgrades

2–3 yr

Average simple payback on audit-identified efficiency improvements

What auditors actually look at

**HVAC systems and controls**

Heating, cooling, and ventilation typically account for 40–60% of a commercial building's energy use. Auditors assess equipment age, efficiency ratings, scheduling, setpoints, and whether building automation is functioning as designed — or has been overridden over the years.

**Lighting systems**

LED retrofits remain one of the highest-ROI efficiency investments available — especially in facilities still running T8 fluorescent or metal halide fixtures. Auditors document current fixtures, hours of operation, and available utility rebates that reduce project cost.

**Water systems and fixtures**

Water audits identify irrigation inefficiencies, running toilets, dripping fixtures, and process water waste that may not be apparent from monthly invoices. For facilities in water-scarce regions or with high sewer costs, water audits frequently identify some of the fastest-payback opportunities.



Process equipment and compressed air

Industrial and manufacturing facilities should include compressed air systems, motors, and process equipment in scope. Compressed air leaks alone typically waste 20–30% of compressed air system output — often costing tens of thousands of dollars annually at sites that have never been audited.



Billing accuracy and meter verification

An on-site audit includes physical verification of meter installations and utility account assignments. It's common to find meters assigned to the wrong accounts, submeters that haven't been read correctly, or utility services that are billed to the wrong tenant or cost center.

The three levels of energy audit

I

Level I — Walk-through assessment

A brief on-site survey that identifies obvious low-cost and no-cost improvements. Useful for initial triage and prioritization across a large portfolio. Does not involve detailed measurement or financial modeling.

II

Level II — Energy survey and analysis

The most common commercial audit type. Includes a detailed walkthrough, equipment inventory, utility data analysis, and financial analysis of identified measures — including estimated cost, savings, and simple payback. Sufficient for most capital project decisions.

III

Level III — Investment-grade audit

The most detailed and rigorous audit type, involving sub-metering, computer simulation, and detailed engineering analysis. Required for large capital investments, performance contracting, and projects involving complex financing or long-term performance guarantees.

Audit vs. ongoing monitoring — an important distinction

An audit gives you a point-in-time picture. It identifies what exists and what could be improved — but it doesn't tell you what happens after you leave. Continuous monitoring through interval data or IoT submetering is what allows you to verify that improvements are holding, catch regression, and surface new issues as they develop. The two approaches are complementary, not interchangeable.

When an audit makes sense

Before a major capital project

Confirm what's actually driving energy or water costs before committing to a retrofit scope. Assumptions made without an audit frequently lead to underperforming projects.

When a site is above benchmark

If utility cost benchmarking flags a site as a significant outlier, an audit identifies why — and whether the driver is behavioral, equipment-related, or a billing issue.

For ESG baseline building

A physical audit supplements utility data analysis for sustainability reporting — validating that operational characteristics match what the bills suggest.

Portfolio acquisitions

Auditing newly acquired facilities establishes a baseline for understanding inherited utility costs and identifies immediate savings opportunities before the first full operating year.