Energy Services

www.npcg.net/services/energy

Saving energy is important for many reasons, especially for the bottom-line. Our team audits commercial properties to determine not only the usual energy savings opportunities (i.e. lighting upgrades), but the more complicated and creative opportunities that provide operational efficiency and better building comfort (i.e. downsizing an oversized HVAC system at a large hotel or constructing a commercial laundry facility with tunnel-washers at a resort). We use mechanical engineers who specialize in how your type of property operates. Our audits deliver realistic options, budgets, and potential savings that also align with your operational philosophy and investment plans for the property.

NPC can also help you implement the energy upgrades from small "low-hanging fruit" to large and complex projects (i.e. replacing a central plant) by managing the project, contractors, etc. and securing energy rebates for even more savings.

Energy & Utility Assessment

NPC has an in-house team of dedicated engineers and experts to provide assessments of HVAC, central plant, lighting, controls, and utility system energy consumption. An energy assessment is the first step in defining current energy usage and identifying upgrades to reduce energy consumption and utility expenditure. We tailor our approach based on facility requirements, goals, and return on investment requirements. The onsite investigation includes interviews with engineering, building occupants, observing and reviewing operations, building plans, equipment, and controls systems. Typical energy consumption savings are greater than 10% and often greater than 30% of building energy and water expenditure.

All Energy and Utility Assessments address applicable rebates and incentives. NPC maintains direct contact with utilities and program administrators to stay abreast of program and funding changes. When project involvement extends to design and implementation NPC will manage the rebate process with the owner, contractor, and incentive provider. **For example, in 2023 NPC guided a client in Norfolk, VA in receiving the first Non-Residential Building Automation Program custom incentive in Dominion Energy of Virginia territory. This $300,000 hotel project was eligible for a $27,000 rebate. It reduced demand by 128 kW and is projected to save the client 1,286,600 kWh/yr ($107,000).**

Energy Code Compliance

Increasingly states and municipalities are requiring a "tune-up" of existing buildings to meet local energy, water, and greenhouse gas goals. These programs can be similar but often have differing requirements, procedures, and levels of detail. Often, they are paired with Energy and Utility Assessments to maximize the positive effects of the process. NPC has coast-to-coast experience meeting these requirements.

Building Controls Retro Commissioning & Controls Design

Retro commissioning is a systematic process for functionally testing equipment to determine if it is capable of being operated and maintained according to operational needs. This process identifies repair, replacement, and upgrade opportunities to controls systems and functional components they operate. Included in this process is the design of advanced sequences of operation for the controls system.

Owner's Representative

Implementation in projects needs to be in keeping with the intent of the energy assessment to realize a full return on investment. As Owner's Representative or "Construction Administrator," NPC applies a three-part process to ensure project goals are met.

- design & procurement process including full bid evaluation and discussion with contractors around capabilities, scope, and pricing.
- project execution including submittal review, schedule maintenance, & installation review checkpoints.
- project commissioning and closeout to ensure a fully operational system prior to project turnover and the start of the warranty period.

Renewable/Special Energy Project Development

NPC can act as the owner's agent for large energy projects, particularly when engineering design is required to realize the projected energy savings when projects are justified by utility cost savings and/ or are coupled with tax credits or utility incentives. Projects may include traditional projects eligible for significant utility rebates such as chiller plant upgrades, combined heat and power, and het recovery chilled water systems, renewables, such as solar, or demand management projects including thermal and battery storage. NPC can develop the project to ensure that the project meets energy savings or GHG reduction goals while ensuring that utility and tax credit savings are maximized.

You profit from our experience

- In 2023, NPC identified over $10M in energy savings for hotel clients, an average of $223K per hotel or $767 per room.
- Average simple payback on recommended energy upgrades is 2.98 years.

Expertise includes:

- Hotels/Resorts
- Convention Centers
- Offices
- Schools
- Military/government facilities

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