



# Energy Performance Benchmarking Report

**The Small Retail Store  
Address  
Egg Harbor Township, NJ 08234**

Date  
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## Background

New Jersey's Clean Energy Program, administered by the NJ Board of Public Utilities, supports building owners and facility managers in their pursuit of energy efficiency and sustainability. This benchmarking assessment is designed to help you:

- Understand how energy is consumed and cost trends at each building
- When possible, if there is sufficient comparative data, see how these building(s) compare to other similar buildings
- Identify opportunities for improving operations, reducing costs, and participating in relevant Clean Energy incentive programs

The analysis was based on the information provided on the *Building Data Request Form* submitted, which included building, energy supplier, and other information. The building's utility bills were also used to assess its electricity and heating fuel consumption for the year(s) provided. A summary table of your building's energy use and cost information is provided in Table 1.

If your building type fits either the EPA's ENERGY STAR<sup>®</sup> Portfolio Manager or EPA EPI models, then its energy performance was compared to national data for similar buildings. The five major benchmarks used to analyze building performance include, electricity use; heating fuel use; weather-normalized heating fuel use; total cost; and total cost per resident, all of which have been normalized for comparison by square footage and weather. If an ENERGY STAR benchmark was conducted, a more detailed description of your building's specific score is available below.

Not all buildings fall within a well-represented peer group, nor are all buildings able to receive a benchmarking comparative rating. Buildings for which no model was available will still receive an energy performance analysis and recommendations for improvements to lower energy use and increase building operations. Please note, all information provided to this program is confidential.

Tables 2 and 3 track your facility's monthly electricity use, electricity demand, and heating fuel use figures. Although the monthly usage graphs do not include comparisons with other similar buildings in New Jersey or nationwide, they give you a clear picture of how your building consumes energy over the course of a year. Monthly figures are useful for anyone who is interested in conducting an onsite energy audit.

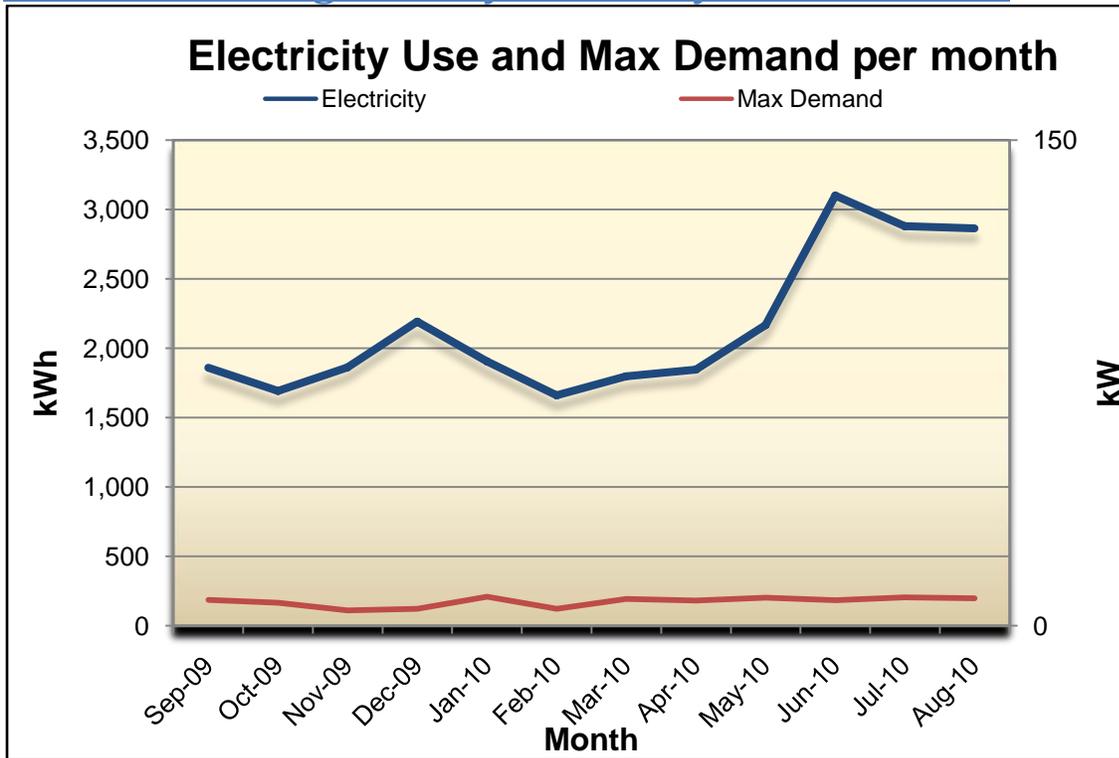
Table 4 presents the building's carbon footprint and the last 2 sections of this report include some recommended next steps and information on other offerings available through the New Jersey Clean Energy Program to support your energy efficiency projects both technically and financially.

## Building Energy Use Data

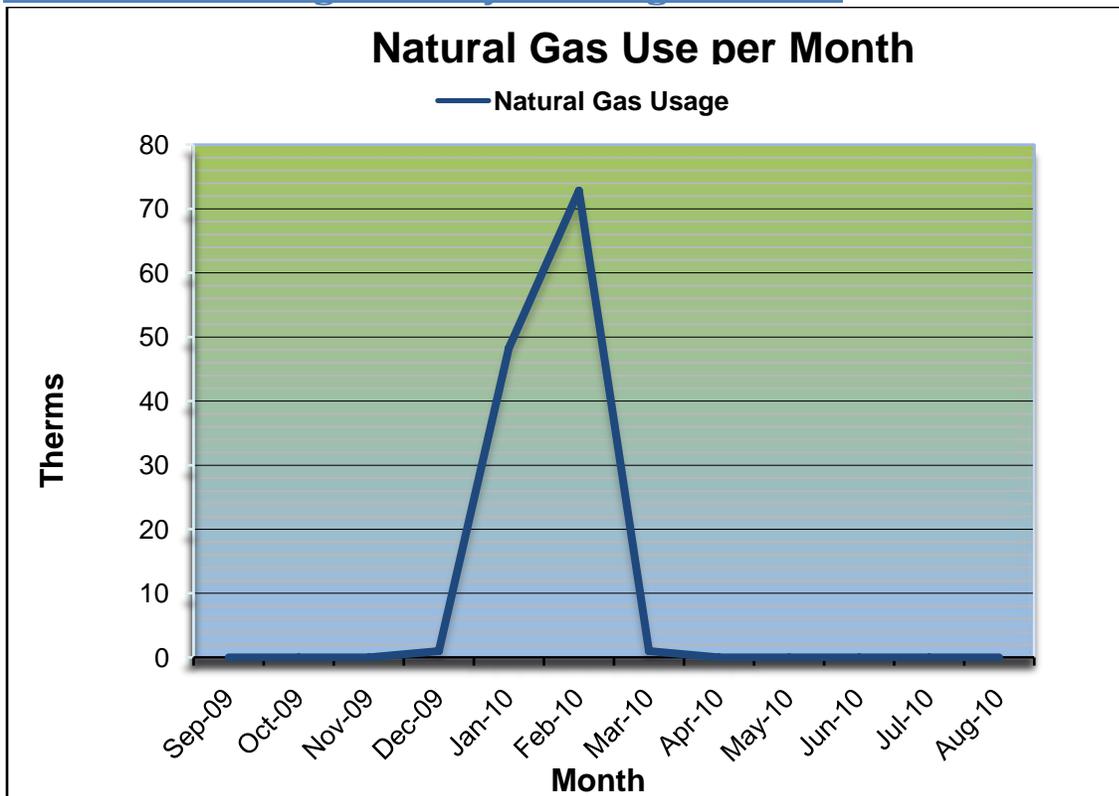
**Table 1: Building Summary**

Building Data			
Weather Zone	ATLANTIC CITY, NJ	Building Name	The Small Retail Store
City	Egg Harbor Township	Zip Code	08234
Year Built	2004	Floor Area (sq.ft.)	1,440
No. of Persons	7	Number of PCs	3
Weekly Operating Hours	58	Months Used	12
Percentage Heated	100%	Percentage AC	100%
Pool Size	N/A	Months Pool Used	N/A
Utility Data			
Data End Point	8/31/2010	Total Cost (\$)	N/A
Electricity Usage (kWh)	25,831	Electricity Cost (\$)	N/A
Natural Gas Usage (therms)	123.1	Natural Gas Cost (\$)	N/A
Fuel Oil Usage (gal)	N/A	Fuel Oil Cost (\$)	N/A
Other Fuel Usage (gal)	N/A	Other Fuel Cost (\$)	N/A
Energy Performance Indicators			
EPA Score	N/A	Electric Usage (kWh/sq.ft.)	17.9
Heating Fuel Usage (kBtu/sq.ft.)	8.6	Weather Adjusted Heating Usage (Btu/sq.ft./HDD)	1.9
Site Energy (kBtu/sq.ft.)	69.8	Source Energy (kBtu/sq.ft.)	213.4
Environmental Impact Indicators			
Carbon Emissions			
This Year's Heating Fuel CO <sub>2</sub> (tons)	0.7	This Year's Total CO <sub>2</sub> (tons)	18.5
This Year's Electricity CO <sub>2</sub> (tons)	17.8	CO <sub>2</sub> Efficiency Savings Over Previous Year (tons)	N/A

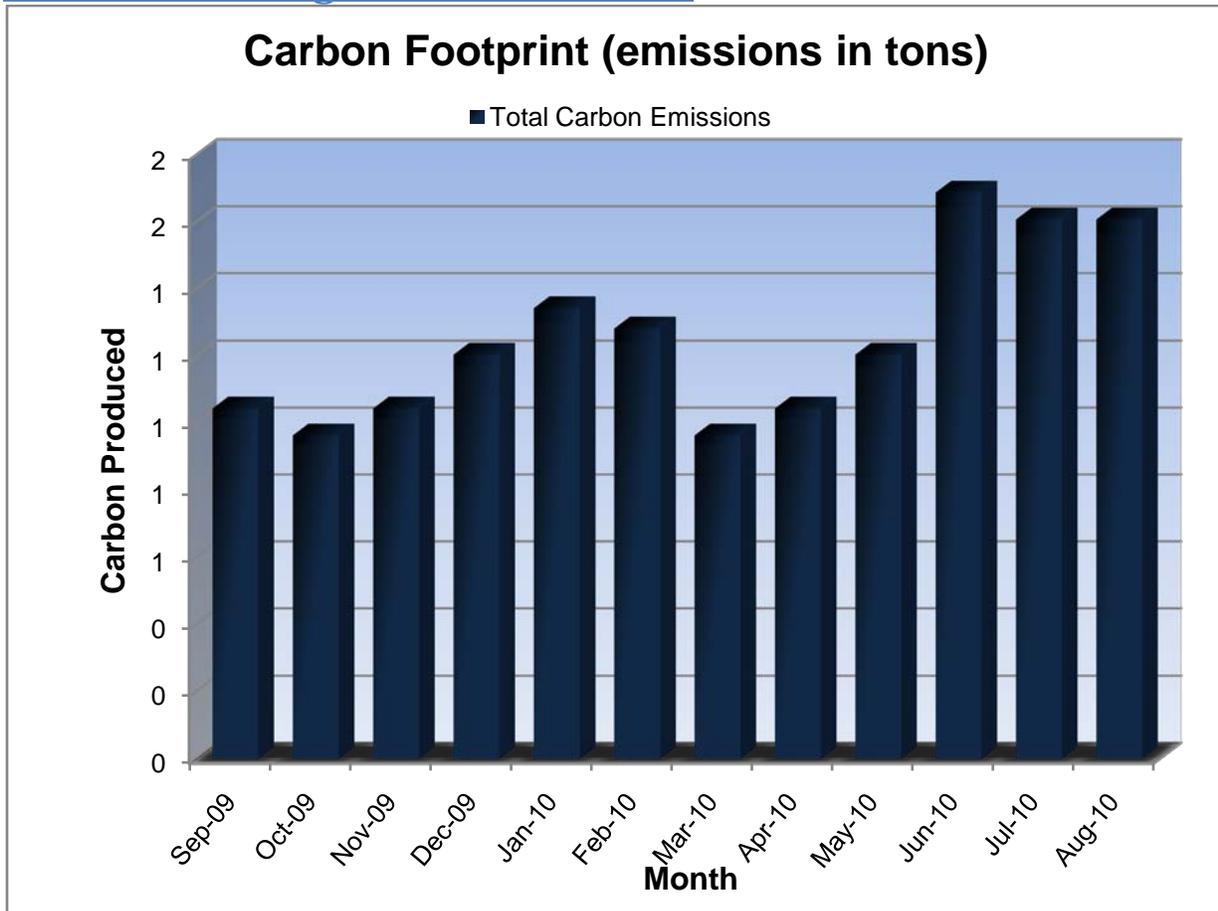
**Table 2: Building Monthly Electricity Use & Demand**



**Table 3: Building Monthly Heating Fuel Use**



**Table 4: Building Carbon Emissions**



Please note this report is based on self-reported data, interpreted at a high level, and prepared to disseminate valuable information on how energy is used, potential for energy saving, and guidance on applying for relevant NJCEP incentives.

This is not an engineering report or an investment grade audit.

## Analysis Results

Energy Intensity	The Small Retail Store	National Average: Retail, Non-Mall Store
Site	69.8	82
Source	213.4	191

Site Energy Intensity score is a measure of a building's annual energy utilization per square foot. The site energy intensity score calculated at the Small Retail Store is 69.8. This calculation is completed by converting the fuel usage consumed by the building for one year, to British Thermal Units (BTU), and dividing this number by the square footage of the building. Site Energy Intensity score is a good measure of a building's energy use and is utilized regularly for comparison of energy performance for similar building types.

$$\text{Building Site Energy Intensity} = \frac{(\text{Electric Usage in kBtu} + \text{Natural Gas in kBtu})}{\text{Building Square Footage}}$$

The estimated average site energy intensity score for a building of similar square feet, type and usage is approximately 70. Belleville Public Library is 17.5% less than the national site energy intensity average.

Source Energy Intensity score is a combination of the building's energy usage in addition to the transmission, delivery, and production losses, this calculation is an estimated complete assessment of energy required to operate the building. The source energy intensity score calculated at the Small Retail Store is 213.4.

$$\text{Building Source Energy Intensity} = \frac{(\text{Electric Usage in kBtu} \times \text{SS Ratio} + \text{Natural Gas in kBtu} \times \text{SS Ratio})}{\text{Building Square Footage}}$$

The estimated average source energy intensity score for a building of similar square feet, type and usage is 213. The Small Retail Store is 10.5% higher than the national source energy intensity average.

## Recommendations

Energy efficiency is a critical need as utility prices continue to rise. Since the inception of the New Jersey Clean Energy Program in 2003, the price of natural gas has nearly doubled in New Jersey, driving similar increases in electricity prices, while oil prices have been wide ranging and extremely volatile. New Jersey's Clean Energy Program is designed to help building owners save energy by providing significant financial and technical support. Accordingly, buildings that have participated in other states' previous energy benchmarking programs have shown a decrease in overall energy use of approximately 20%. We hope the following recommendations will help you reduce your energy consumption as well.

Based on the age and size of your building and its total energy use, we recommend that you obtain a comprehensive energy audit and create an energy reduction plan. The New Jersey Clean Energy Program (NJCEP) that will identify areas of improvement and also provide incentives to off-set the initial cost of an energy audit investment is the [Direct Install Program](#).

### Direct Install

Direct Install is designed as a turn-key equipment replacement program to reduce energy costs of smaller, nonresidential facilities. A network of Participating Contractors selected via a Request for Proposal (RFP) process will perform energy assessments and installation services. Customers installing eligible equipment replacement measures under the program will receive financial incentives of up to 60% of installed costs.



### Eligibility

Existing small to mid-sized commercial and industrial facilities with a peak electric demand that did not exceed 200 kW in any of the preceding 12 months are eligible to participate in Direct Install. Buildings must be located in New Jersey and served by one of the state's public, regulated electric or natural gas utility companies.

### Benefits

Contractors will perform energy assessments and equipment inventories using provided software to identify energy efficiency measures eligible for incentives. Participating Contractors will then install qualifying measures according to an installation agreement signed by the customer.

Project installations are typically completed within 60 days from the time of scheduling your Energy Assessment.

Ongoing Savings - Your new energy-efficient equipment will provide savings for years to come through dramatically reduced energy costs on your monthly utility bills.

## New Jersey's Clean Energy Program

New Jersey's Clean Energy Program (NJCEP) promotes increased energy efficiency and the use of clean, renewable sources of energy including solar, wind, geothermal, and sustainable biomass. The results for New Jersey are a stronger economy, less pollution, lower costs, and reduced demand for electricity. NJCEP offers financial incentives, programs, and services for residential, commercial, and municipal customers. The following is a list of current options available under the program.

**Table 5: Applicable NJ Programs by Building Type**

C&I Building Type	Program			
	NJ SmartStart Buildings	Pay for Performance	LGEA	Direct Install
Small Business	X			X
Large Business	X	X		
Higher Education	X	X	X	X
Small Industrial	X		X	X
Large Industrial	X	X		
Hospital/Healthcare	X	X		X
Multifamily	X	X		X
Hospitality	X	X		X
Local Government	X	X	X	X

### Pay for Performance Program:

Pay for Performance helps building owners and managers take a comprehensive, whole-building approach to saving energy in existing facilities and earn incentives that are directly linked to savings. The Pay for Performance Program is supported by a network of Partners, under direct contract with you, who provide technical services. Acting as your energy expert, your Partner will develop an Energy Reduction Plan for each project with a whole-building technical component of a traditional energy audit, a financial plan for funding the energy efficient measures and a construction schedule for installation.



## Eligibility

The Existing Buildings component is designed for commercial, industrial, and multifamily buildings with a peak demand in excess of 200 kW in any of the preceding twelve months. Save 15% or more on the energy consumption in your buildings with the help of our Approved Partners and receive incentives along the way.

## ENERGY STAR Portfolio Manager

Pay for Performance takes advantage of the ENERGY STAR Program with Portfolio Manager, EPA's interactive tool that allows facility managers to track and evaluate energy and water consumption across all of their buildings. The tool provides the opportunity to load in the characteristics and energy usage of your buildings and determine an energy performance benchmark score. You can then assess energy management goals over time, identify strategic opportunities for savings, and receive EPA recognition for superior energy performance.



## Incentives

Pay for Performance incentives are awarded upon the satisfactory completion of three program milestones:

- **Incentive #1** - Submittal of complete Energy Reduction Plan prepared by an approved Program Partner - Contingent on moving forward, incentives will be between \$5,000 and \$50,000 based on approximately \$.10 per square foot, not to exceed 50% of the facility's annual energy expense.
- **Incentive #2** - Installation of recommended measures - Incentives are based on the projected level of electricity and gas savings, which will be "trued-up" after one year based on actual savings.
- **Incentive #3** - Completion of Post-Construction Benchmarking Report - A completed report verifying energy reductions based on one year of post-implementation results is required. Incentives for electricity savings and natural gas savings will be paid based on actual savings, provided that the minimum performance threshold of 15% savings has been achieved.

The Energy Reduction Plan must define a comprehensive package of measures capable of achieving energy costs 15% below ASHRAE 90.1-2004 Standards.

Combined Heat & Power (CHP) projects are eligible for incentives up to \$1,000,000 as part of Pay for Performance.

## **Local Government Energy Audit (LGEA):**

The Local Government Energy Audit Program targets buildings owned by local governments, New Jersey State Colleges and Universities, and 501 (c)(3) non-profit agencies. Such facilities may include, but are not limited to: offices, courtrooms, town halls, police and fire stations, sanitation buildings, transportation structures, schools and community centers. All local governments, New Jersey State Colleges or Universities, and non-profit agencies exempt from federal tax under section 501 (c)(3) of the Internal Revenue Code that are located within the service territory of at least one of NJ's public utilities are eligible. In the future, federal funding may be provided to allow local governments and New Jersey State Colleges and Universities that are not within the service territory of at least one of NJ's public utilities to apply for the program. More information will be provided if and when the Program does become open to these entities.

The Program requires that participating local government agencies pass a resolution enabling submittal of the program application. Downloadable sample resolutions are on the website that may be used by your governing body. The Division of Local Government Services (DLGS) within the Department of Community Affairs (DCA) has issued a Local Finance Notice to allow participants in the LGEA Program to pass a resolution later in the process, when the participant is selecting an auditing firm.

### **Incentives Up To 100% of the Cost**

Participants will select from a list of pre-qualified auditing firms who will follow the strict parameters of New Jersey's Clean Energy Program and deliver an investment grade audit. The Program will subsidize 100% of the cost of the audit. More information about the New Jersey Division of Purchase and Property State Contract (T-2545) and the selected firms are available on the web site at <http://njcleanenergy.com/lgea>.



When your audit is complete, you'll have a list of recommended, cost-effective energy efficiency measures and facility upgrades that will reduce operating expenses and, in many cases, improve the health and productivity of the buildings' occupants. Of course, those measures are eligible for additional incentives available through the NJ SmartStart Buildings Program.

Applicants must commit to implement measures recommended by the audit. In each building that is audited, applicants must submit paperwork within one year of approval of the Audit Report to show that they have spent, net of other NJCEP incentives, at least 25% of the cost of the audit. Applicants not honoring this commitment will be required to pay back to the program an amount equal to 25% of the cost of the audit.

To ensure the opportunity for participation by many local governments throughout the state, this program is subject to an annual incentive cap for each participant based on square footage of facilities involved in the audit. The new cap structure may be viewed at <http://njcleanenergy.com/lgea>.

### **SmartStart Buildings:**

NJ SmartStart Buildings provides financial incentives, design support and technical assistance for energy efficient measures including high-efficiency lighting and lighting controls, heating and cooling equipment, water heating, motors and variable frequency drives. The program is available to address the new construction and renovation needs of businesses, schools, municipalities, multifamily buildings, and other commercial and industrial facilities.



### **Eligibility**

In order to be eligible to receive financial incentives under this Program, applicants must receive electric and/or gas service from one of the regulated electric and/or gas utilities in the State of New Jersey. They are: Atlantic City Electric, Jersey Central Power & Light, Rockland Electric Company, New Jersey Natural Gas, Elizabethtown Gas, PSE&G, and South Jersey Gas.

### **Incentives**

In addition to design incentives and technical support, financial incentives for qualifying equipment are also available through NJ SmartStart Buildings. These incentives were developed to help our customers offset some of the added cost to purchase qualifying energy-efficient equipment, which provides significant long-term energy savings.

A wide range of incentives is available for qualifying equipment (depending on type, size and efficiency) including Electric Chillers, Gas Cooling, Desiccant and other ERV Systems, Electric Unitary HVAC, Ground Source Heat Pumps, Gas Heating, Variable Frequency Drives, Natural Gas Water Heating, Premium Motors, Prescriptive and Performance Lighting, Lighting Controls and Custom Gas and Electric Projects.

Please call us at **866-NJ-SMART (866-657-6278)** or log on to **NJCleanEnergy.com/ssb** to find out how these programs can help you save money and improve building energy performance.