



# Energy Assessment & Potential Savings Report



Completed for:  
[Building Address]

Assessment Date: 11/26/2014

Potential Gas Savings: 23%

January 14, 2015

[Building Owner/Manager Name]  
[Building Management Company]  
[Building Address]  
[Building Owner/Manager Phone]  
[Building Owner/Manager Email]

Tessa Maurer  
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Dear [Building Owner/Manager Name],

Elevate Energy has completed an Energy Assessment for your building. We inspected the property, analyzed past utility bills, and modeled potential energy upgrades. This report details our findings and recommendations. Elevate has helped hundreds of other buildings owners save—and now it's your turn.

The table below summarizes your current energy usage and potential for savings. These figures include only the natural gas account paid by the owner.

	Natural Gas
Current average utility cost	\$14,430/year
Projected average savings	\$3,274/year
Projected average utility cost	\$11,156/year
<b>Projected reduction</b>	<b>23%</b>

The next page outlines our specific recommendations for your property, cost and savings associated with each recommendation, and any utility rebates that may be applicable. The report also provides information on financing, health and safety recommendations, and an explanation of some of the non-efficiency benefits of the recommended improvements.



What happens next? Call us. We can answer any questions you have and continue the process. We'll help you every step of the way. The sooner you start, the sooner you can save.

Regards,  
Tessa Maurer

## Recommended Efficiency Improvements

The table below summarizes the most important upgrades we recommend for your building, based on our site visit and analysis of your utility bills. The estimated cost, savings, and payback period are calculated for each recommendation. Your expected reduction in natural gas usage is shown in therms. The recommendations are ranked by savings-to-investment ratio (SIR), which indicates how many times an upgrade will pay for itself by the end of its lifetime. Upgrades with high SIRs make the most sense and should be done first.

Recommendation	Estimated Cost	Annual Dollar Savings*	Annual Usage Reduction	Years to Payback	Upgrade Lifetime (years)	SIR	Potential Utility Rebate†
1. <b>Steam Pipe Insulation:</b> Insulate all accessible steam pipe with jacketed fiberglass (R-6)	\$1,300	\$500	50 therms	2.6	25	<b>9.6</b>	-
2. <b>Roof Cavity Air Sealing &amp; Insulation:</b> Air seal roof cavity perimeter and all penetrations, gaps and bypasses with foam, and insulate with blown-in cellulose (R-49)	\$10,030	\$1,970	1,970 therms	5.1	25	<b>4.9</b>	\$1,970 20%
3. <b>DHW Pipe Insulation:</b> Insulate all accessible domestic hot water pipe with jacketed fiberglass (R-4.5)	\$1,440	\$130	130 therms	11.1	25	<b>2.3</b>	-
4. <b>Door Sweeps:</b> Install sweeps and weatherstripping on all exterior doors	\$975	\$184	184 therms	5.3	10	<b>1.9</b>	-
5. <b>Boiler Controls:</b> Install boiler controls with a minimum of 4 in-unit temperature sensors and outdoor reset control (see note below)	\$3,900	\$490	490 therms	8.0	12	<b>1.5</b>	\$1,950 50%
<b>TOTAL</b>	<b>\$17,645</b>	<b>\$3,274</b>	<b>3,274 therms</b>	<b>5.3</b>	-	-	<b>\$3,920 22%</b>

\* Assumes \$1.00per therm of natural gas.

† Rebates are capped at 75% of the total project cost

**Note on Boiler Controls:** It is possible that the most cost-effective option for this building is to repair the boiler control system that is currently in place. However, as the current model is several years old, it may not be feasible to do so. In addition, installing a new model would provide building management with more flexibility and control over building temperatures and boiler operation. We have reached out to R&D Electronics to ask about sensors for the current model, and we will let you know when we hear from them. In the meantime, please feel free to reach out to us with any questions.

## Paying for Efficiency

You can pay for upgrades any way you like. There are no funding requirements for our services. What follows is information about rebates, financing, and water programs that can assist in offsetting the costs of implementing our recommendations.

### Utility Rebates

The rebates shown in the table above are an estimate of the current incentives offered by the utility companies. They should give you an idea of the amount you may receive depending on your eligibility, timing, and actual scope of work. However, these rebates are subject to change. Your Energy Analyst will follow up with you to discuss your eligibility for these rebates and can help you apply for them.

### Low-cost Energy Loans

Elevate Energy has a partnership with the Community Investment Corporation (CIC), a nonprofit lender, to finance energy-efficiency measures in multifamily buildings. CIC offers Energy Savers Loans at a fixed-rate of 3% (check with CIC for current rate) with a seven-year term as a second mortgage to pay for energy efficiency improvements.

To learn more about loan options, contact CIC's Energy Savers Program Manager:

James Wheaton  
(312) 870-9928

[james.wheaton@cicchicago.com](mailto:james.wheaton@cicchicago.com)

### Water Saving Programs


Due to rising water rates in and around the city, we understand that water bills are becoming a priority for many building owners. In some cases, both water and energy usage in a building can be reduced through the same upgrades. A substantial amount of water can also be conserved in buildings through proper maintenance of fixtures. For some buildings, it may be beneficial to initiate a combined upgrade and maintenance program. If you are interested in learning more about this opportunity, please let us know.

## Non-Efficiency Benefits

Research shows that making energy and water efficiency improvements to your building can bring benefits beyond lower utility bills. These benefits include reduced operations and maintenance costs, higher tenant comfort, lower tenant turnover, and less variable utility costs. We would be happy to discuss the non-energy benefits of our recommendations with you in greater detail.

## Health and Safety Recommendations

In addition to helping you make your building more efficient, Elevate Energy will work with you to improve the health and safety of your building. The table below gives our specific health and safety recommendations. Unlike our efficiency recommendations, these may or may not be cost-effective or save your building energy, but they are critical in keeping your tenants and employees healthy and safe. Some may also improve the living conditions in your building and increase tenant comfort.

Health & Safety Recommendation	Photograph
<p><b>Hazardous dryer venting:</b> During the assessment, we found safety issues with the dryer venting. The current dryer vents are made out of mylar, which presents a fire hazard as any lint fires that start in the vent will not be contained and may spread to the house. In addition, the exhaust flue for one dryer was disconnected, which may lead to the presence of noxious flue gases inside the building and endanger the health of building occupants. Replace with a smooth, securely connected metal vent to the outdoors.</p>	

## Next Steps

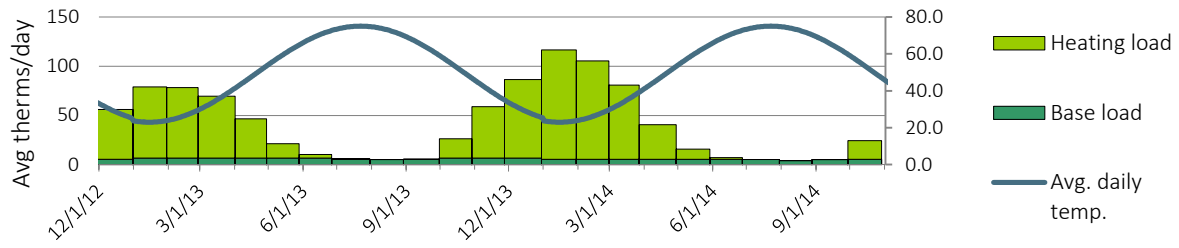
Now that Elevate Energy has completed our analysis and determined what improvements are needed in your building, we are here to help you move forward. We can help you with the following:

- Developing a project plan
- Soliciting and reviewing bids from contractors
- Filling out utility rebate applications
- Scheduling installation work and performing quality control inspections

Once work is finished, we will track the performance of your improved building by reviewing utility bills. We will provide an annual performance report, including a tune-up if your building is underperforming.

## Appendix: An Explanation of Your Energy Usage

Natural gas use follows a seasonal pattern. Consumption is highest in the winter because of the need for space heating. It is lowest in the summer—but not zero—when only the water heaters consume natural gas. Your natural gas use for the past two years is shown in the figure below.



Source: Peoples Gas

Your natural gas consumption can be broken into two parts: base load and heating load. The base load represents the gas used by water heaters and other gas-powered appliances throughout the year. We estimate it as the average of the summer bills, when the building is unheated. Everything above this is assumed to be the heating load.

The table below shows how your building compares to other buildings in our program in terms of energy use intensity (EUI). Energy-use intensity (EUI) is a useful metric for comparing buildings of different sizes. It is the total energy used by the building in one year divided by the total heated area, expressed in thousands of BTUs per square foot per year (kBtu/ft<sup>2</sup>/yr). Buildings with low EUIs use energy more efficiently than buildings with high EUIs. The table below shows how your building’s natural gas EUI is split into base load and heating load, and how they compare to other buildings in our program.

	Natural gas base load	Natural gas heating load	Total natural gas load
Average Elevate Energy building	24	78	102
<b>Your building</b>	<b>20</b>	<b>114</b>	<b>133</b>
Percent with lower EUI	37%	87%	81%

Building address: [Building Address]

Number of stories: 3

Number of units: 13

Method of analysis: Annual energy usage was estimated using natural gas bills.

Natural gas utility used to calculate rebates: Peoples Gas

Electric utility used to calculate rebates: ComEd

Water provider used to calculate water rate: Chicago

This energy assessment and potential savings report was prepared by Elevate Energy. Elevate Energy is a nonprofit organization whose mission is to provide economic and environmental benefits to households, building owners, and communities through energy efficiency and conservation.

Elevate Energy is an affiliate of the Center for Neighborhood Technology (CNT), a 36-year old nonprofit organization whose mission is to promote the development and perpetuation of vibrant urban communities that are environmentally and economically sustainable, both in the Chicago region and throughout the United States.

#### DISCLAIMER

This report does not assure financial savings, energy savings, or building upgrades. Financial and energy savings depend on many interrelated variables: building performance, quality of contractor installations, job costs, operations and maintenance, tenant behavior, weather, and energy prices. Achieving energy savings will require a concentrated and proactive approach on the part of the building owner, e.g., by following best practices in operations and maintenance, performing basic upgrades (weatherstripping, compact fluorescent lamps), educating tenants about the impact of their behavior on energy consumption, and pursuing smart upgrades and retrofits. This report should not be used for specifying upgrade techniques or methods.

The contents of this report should not be construed as assuring any energy savings, investment, or financing for upgrades. The results, assessments, conclusions, and recommendations stated herein are factually representative of the conditions and circumstances observed in accessible building areas on the date of the assessment. We do not assume responsibility for building conditions found in inaccessible areas or any change in conditions or circumstances. This report and its findings and recommendations, if implemented by your firm, should not be construed as an assurance or implied warranty for the continuing safety, performance, or cost-effectiveness of any equipment, product, system, facility, procedure, or policy discussed or recommended herein.

This report may contain sensitive information about your firm, staff, equipment, operations, or policies. It may also contain confidential or proprietary information about specific equipment or products that have been provided to Elevate Energy by the manufacturers or other sources. Therefore, we consider this report confidential and ask that you do the same. This report should not be transmitted to third parties without the written permission of Elevate Energy and an authorized agent of your firm. Asbestos-containing materials, lead-based paint, and other hazardous materials, such as mercury and PCBs in lighting ballasts, may be present in building materials. The Owner is responsible for identifying those materials that will be affected by the planned retrofit work. Licensed, insured, and experienced professionals should be retained to test, manage, remove, and dispose of all hazardous materials in accordance with all applicable federal, state, and local regulations.