

BUILDING ENERGY ASSET SCORE

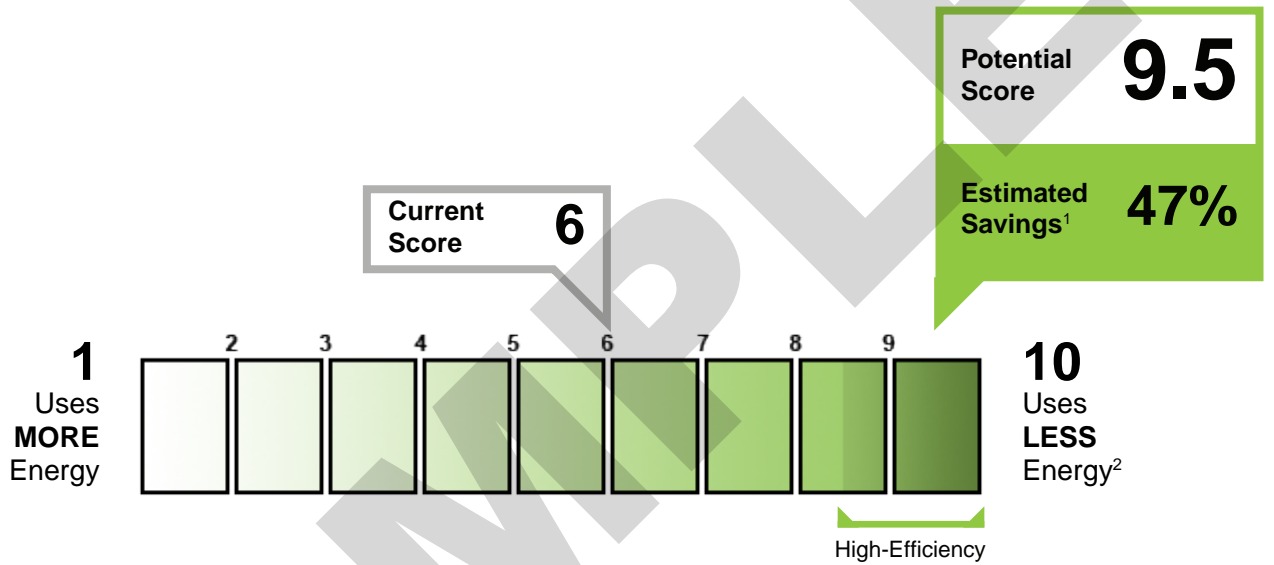
OVERALL BUILDING SCORE

BUILDING INFORMATION

Example Building - Mixed Use
2000 A Street
Chicago, IL 60601

Building Type: **Mixed Use**
Gross Floor Area: **140,000 ft²**
Year Built: **2005**

Score Date: **09/22/2015**
Building ID #: **XXXXX**



Building Use Types	Estimated Source Energy Use (kBtu/ft ²)	Energy Use Intensity by Fuel Type
Office: 100,000 ft²	Current Building 148	Site Energy Use (kBtu/ft ²)
Retail: 40,000 ft²	Upgraded Building 78	Source Energy Use (kBtu/ft ²)
<p>This report includes a Score for the entire building as well as individual Scores for each of the separate use types.</p>		Fuel Type [Site EUI , Source EUI]
		Gas [12.7, 13.3]
		Electricity [42.9, 134.6]
		District Heating [0.0, 0.0]
		District Cooling [0.0, 0.0]

The **Building Energy Asset Score** is a national rating system developed by the U.S. Department of Energy. The **Score** reflects the energy efficiency of a building based on the building's structure, heating, cooling, ventilation, and hot water systems. The building's **Structure and Systems** are individually evaluated and ranked. The **Upgrade Opportunities** page provides recommendations for how to improve the building's energy efficiency, increase the building's Asset Score, and save money.

¹ Savings reflect the reduction in source energy that would result from undertaking all of the efficiency improvements identified on the **Opportunities** page. Actual savings will depend on a variety of factors including actual operating conditions.

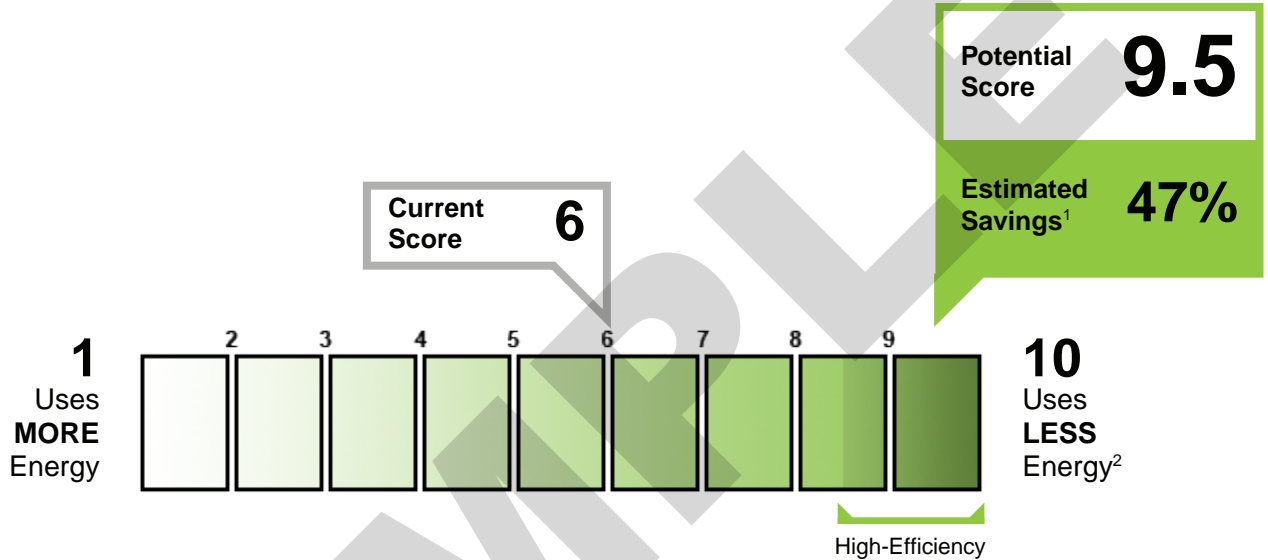
² A score of 10 represents lowest expected energy usage using current energy efficiency technologies. A score of 8.5 represents a high-efficiency building that uses approximately 30% less energy than a building built to the AHSRAE 90.1-2004 energy code.

BUILDING ENERGY ASSET SCORE

SCORE: OFFICE PORTION

Building Name: **Example Building - Mixed Use**

Gross Floor Area: **100,000 ft²**



Standard Occupancy and Operating Conditions	Estimated Source Energy Use (kBtu/ft ²)	Energy Use Intensity by Fuel Type
Number of Assumed Occupants 499 Hours of Operation 48.6 hrs/wk Cooling Set Point 75° F Heating Set Point 70° F Misc. Energy Loads 0.75 W/ft²	Current Building 144 Upgraded Building 77	Site Energy Use (kBtu/ft ²) Source Energy Use (kBtu/ft ²) Fuel Type [Site EUI , Source EUI] Gas [6.8, 7.1] Electricity [43.5, 136.6] District Heating [0.0, 0.0] District Cooling [0.0, 0.0]

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BUILDING ENERGY ASSET SCORE

SCORE: RETAIL PORTION

Building Name: **Example Building - Mixed Use**

Gross Floor Area: **40,000 ft²**



Standard Occupancy and Operating Conditions	Estimated Source Energy Use (kBtu/ft ²)	Energy Use Intensity by Fuel Type
Number of Assumed Occupants 597 Hours of Operation 46.3 hrs/wk Cooling Set Point 75° F Heating Set Point 70° F Misc. Energy Loads 0.30 W/ft²	Current Building 159 Upgraded Building 82	Site Energy Use (kBtu/ft ²) Source Energy Use (kBtu/ft ²) Fuel Type [Site EUI , Source EUI] Gas [27.5, 28.8] Electricity [41.3, 129.8] District Heating [0.0, 0.0] District Cooling [0.0, 0.0]

¹ Savings reflect the reduction in source energy that would result from undertaking all of the efficiency improvements identified on the Opportunities page. Actual savings will depend on a variety of factors including actual operating conditions.

² A score of 10 represents lowest expected energy usage using current energy efficiency technologies. A score of 8.5 represents a high-efficiency building that uses approximately 30% less energy than a building built to the AHSRAE 90.1-2004 energy code.

BUILDING ENERGY ASSET SCORE

UPGRADE OPPORTUNITIES

Building Name: **Example Building - Mixed Use**

Gross Floor Area: **140,000 ft²**

Cost Effective Upgrade Opportunities	Energy Savings ³	Cost ⁴
Building Envelope		
• Add roof insulation in Office Block, Retail Block - Learn More	High	\$ - \$\$
• Install high performance triple pane windows in Office Block, Retail Block - Learn More	High	\$\$ - \$\$\$
Interior Lighting		
• Upgrade T8 fluorescent lighting in Office Block, Retail Block with LED lighting - Learn More	Medium	\$\$
• Add daylighting controls in Office Block, Retail Block - Learn More	Low	\$\$
HVAC Systems		
• Add air-side economizer in Office Block, Retail Block - Learn More	Medium	\$-\$
• Implement demand controlled ventilation (DCV) in Office Block, Retail Block - Learn More	Medium	\$\$
• Add variable frequency drive to supply fans in Office Block, Retail Block - Learn More	Medium	\$\$
Hot Water Systems		
• Add low flow faucets in Retail Block, Office Block - Learn More	Low	\$\$

³ The energy savings range reflects the expected incremental savings for the overall building associated with the specific efficiency upgrade opportunity assuming all other recommended upgrades have already been implemented. This assumption is made to avoid double counting of savings. The ranges reflect site energy savings and are based on standard operating assumptions, unless actual operating conditions are provided by the user.

⁴ The costs are based on Advanced Energy Retrofit Guide and RS Means. The costs are replacement costs, not incremental costs. The costs do not include local incentives. Costs are shown as a range (\$ = low cost, \$\$ = medium cost, \$\$\$ = high cost).

BUILDING ENERGY ASSET SCORE

STRUCTURES AND SYSTEMS

Building Name: **Example Building - Mixed Use**

Gross Floor Area: **140,000 ft²**

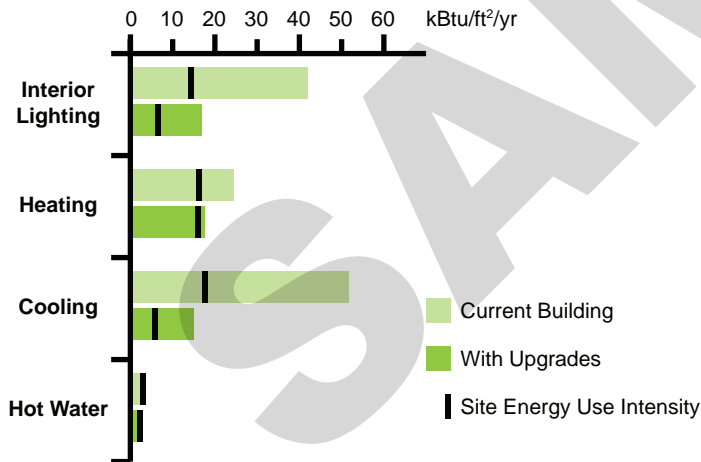
ABOUT THE BUILDING SYSTEMS

	Ranking ⁵
Interior Lighting	Superior
Heating	Superior
Cooling	Good
Overall HVAC Systems	Superior

ABOUT THE BUILDING ENVELOPE

	Ranking ⁵
Roof U-Value, Non-Attic (Btu/ft ² h °F)	Good
Walls U-Value, Framed (Btu/ft ² h °F)	Superior
Windows U-Value (Btu/ft ² h °F)	Fair
Walls + Windows U-Value (Btu/ft ² h °F)	Fair
Window Solar Heat Gain Coefficient	Good

SOURCE ENERGY USE INTENSITY BY END USE



⁵ Ranking Range:

Fair: Building Envelope or Building Systems are less efficient than a typical building built to the AHSRAE 90.1-2004 energy code.
Superior: Building Envelope is more efficient than a typical building built to the AHSRAE 90.1-2013 energy code. Building Systems exceed the highest efficiency levels with market viable technologies.
Good: Building Envelope or Building Systems are between Fair and Superior.

BUILDING ENERGY ASSET SCORE

BUILDING ASSETS

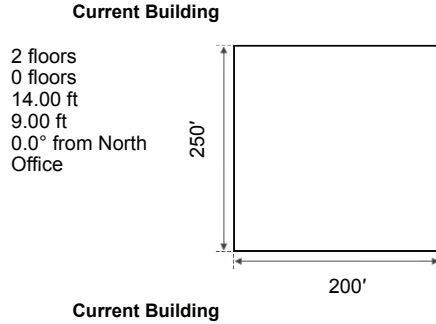
Building Name: **Example Building - Mixed Use**

Gross Floor Area: **100,000 ft²**

Office Block CHARACTERISTICS SUMMARY

Geometry

Above Ground: 2 floors
 Below Ground: 0 floors
 Floor-to-Floor Height: 14.00 ft
 Floor-to-Ceiling Height: 9.00 ft
 Orientation: 0.0° from North
 Use Type: Office



Roof

Roof Type: Built-up w/ metal deck
 Roof U-value: 0.056 Btu/F°-ft²-h

Skylights

No Skylights

Floor

Floor Type: Slab-on-Grade
 Floor U-value: Estimated*

Walls and Windows

Surface

Wall Type: Brick/Stone on masonry
 Wall U-value: Estimated*
 Window Framing Type: Metal
 Window Glass Type: Single Pane
 Window Gas Fill Type: None
 Window Layout: Continuous
 Window-to-Wall Ratio: 0.40
 Window U-value: 0.68 Btu/F°-ft²-h
 Window SHGC: 0.6
 Window VT: Estimated*
 Exterior Shading Type: External Overhangs

Surface

Wall Type: Brick/Stone on masonry
 Wall U-value: Estimated*
 Window Framing Type: Metal
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** Standard operating assumptions are used for building optimization if no values are entered by the user.

BUILDING ENERGY ASSET SCORE

BUILDING ASSETS

Building Name: **Example Building - Mixed Use**Gross Floor Area: **100,000 ft²****Current Building**

Window U-value	0.68 Btu/F°-ft ² -h
Window SHGC	0.6
Window VT	Estimated*
Exterior Shading Type	External Overhangs

Lighting

Recessed Fluorescent T8	100.0% served
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Heating/Cooling

Cooling	Central DX
Efficiency	Estimated*
Heating	Central Furnace
Efficiency	82.00%

Service Water Heating

Fuel Type	Gas
Distribution Type	Distributed
Water Heater Efficiency	80.0%

Operations

The information in this section is not required and does not affect the current Asset Score. If provided, it is only used to identify upgrade opportunities, which are considered in generating the potential score.

Miscellaneous Electric Load	4.00 W/ft ²
Miscellaneous Gas Load	Standard**
Total Occupants	450 total occupants
Setpoint Heating	72.0 F°
Setpoint Cooling	76.0 F°
Weekdays	8:00am - 7:00pm

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BUILDING ENERGY ASSET SCORE

BUILDING ASSETS

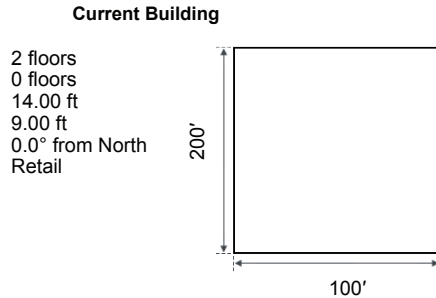
Building Name: **Example Building - Mixed Use**

Gross Floor Area: **40,000 ft²**

Retail Block CHARACTERISTICS SUMMARY

Geometry

Above Ground: 2 floors
 Below Ground: 0 floors
 Floor-to-Floor Height: 14.00 ft
 Floor-to-Ceiling Height: 9.00 ft
 Orientation: 0.0° from North
 Use Type: Retail



Current Building

Roof

Roof Type: Built-up w/ metal deck
 Roof U-value: 0.056 Btu/F°-ft²-h

Skylights

No Skylights

Floor

Floor Type: Slab-on-Grade
 Floor U-value: Estimated*

Walls and Windows

Surface

Wall Type: Brick/Stone on masonry
 Wall U-value: Estimated*
 Window Framing Type: Metal
 Window Glass Type: Single Pane
 Window Gas Fill Type: None
 Window Layout: Continuous
 Window-to-Wall Ratio: 0.40
 Window U-value: 0.68 Btu/F°-ft²-h
 Window SHGC: 0.6
 Window VT: Estimated*
 Exterior Shading Type: External Overhangs

Surface

Wall Type: Brick/Stone on masonry
 Wall U-value: Estimated*
 Window Framing Type: Metal
 Window Glass Type: Single Pane
 Window Gas Fill Type: None
 Window Layout: Continuous
 Window-to-Wall Ratio: 0.40
 Window U-value: 0.68 Btu/F°-ft²-h
 Window SHGC: 0.6
 Window VT: Estimated*
 Exterior Shading Type: External Overhangs

Surface

Wall Type: Brick/Stone on masonry
 Wall U-value: Estimated*
 Window Framing Type: Metal
 Window Glass Type: Single Pane
 Window Gas Fill Type: None
 Window Layout: Continuous
 Window-to-Wall Ratio: 0.40
 Window U-value: 0.68 Btu/F°-ft²-h
 Window SHGC: 0.6
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 Exterior Shading Type: External Overhangs

Surface

Wall Type: Brick/Stone on masonry
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BUILDING ENERGY ASSET SCORE

BUILDING ASSETS

Building Name: **Example Building - Mixed Use**Gross Floor Area: **40,000 ft²****Current Building**

Window U-value	0.68 Btu/F°-ft ² -h
Window SHGC	0.6
Window VT	Estimated*
Exterior Shading Type	External Overhangs

Lighting

Recessed Fluorescent T8	100.0% served
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Heating/Cooling

Cooling	Central DX
Efficiency	Estimated*
Heating	Central Furnace
Efficiency	82.00%

Service Water Heating

Fuel Type	Gas
Distribution Type	Distributed
Water Heater Efficiency	80.0%

Operations

The information in this section is not required and does not affect the current Asset Score. If provided, it is only used to identify upgrade opportunities, which are considered in generating the potential score.

Miscellaneous Electric Load	1.00 W/ft ²
Miscellaneous Gas Load	Standard**
Total Occupants	450 total occupants
Setpoint Heating	72.0 F°
Setpoint Cooling	76.0 F°
Weekdays	8:00am - 7:00pm

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