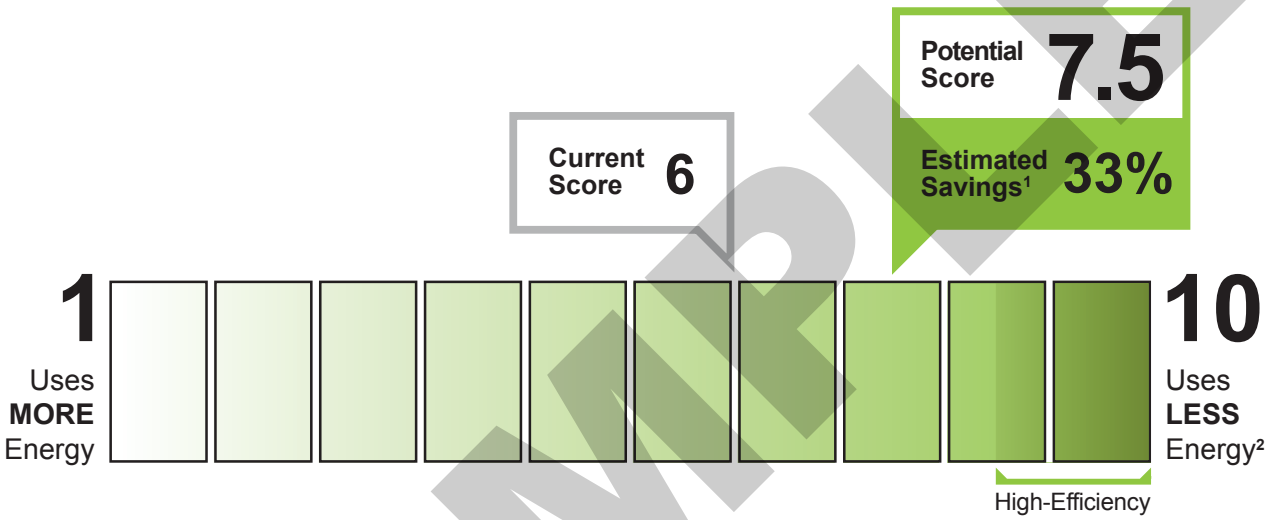
COMMERCIAL BUILDING
ENERGY ASSET SCORE
OVERALL BUILDING SCORE

BUILDING INFORMATION

Example Building
2000 A St.,
Chicago, IL 60601

Building Type: **Office**
Gross Floor Area: **100,000 ft²**
Year Built: **2005**

Score Date: **02/21/2013**
Building ID #: **XXXXX**

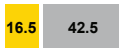


Standard Occupancy and Operating Conditions	
Number of Assumed Occupants	**500**
Hours of Operation	**49 hrs/wk**
Cooling Set Point	**75°F**
Heating Set Point	**70°F**
Misc. Energy Loads	**0.75 W/ft²**

Estimated Source Energy Use (kBtu/ft²)	
Current Building	**159**
Upgraded Building	**107**

Energy Use Intensity by Fuel Type

Site Energy Use (kBtu/ft²)



Source Energy Use (kBtu/ft²)

Gas
Electricity
District Heating
District Cooling

The **Commercial 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 commercial 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 Upgrade 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.

This report is based on self-reported building information.

http://energy.gov/eere/buildings/commercial-building-energy-asset-score

U.S. DEPARTMENT OF ENERGY

Building ID #: **XXXXX**

Gross Floor Area: **100,000 ft²**

COST EFFECTIVE UPGRADE OPPORTUNITIES

	Energy Savings[4]	Cost[5]
Building Envelope		
• Add roof insulation in Office *Learn More*	Medium	$$
• Upgrade windows in Office with high performance double pane windows *Learn More*	Medium	$$
Interior Lighting		
• Upgrade Fluorescent T8 lighting system in Office to compact fluorescent lighting system *Learn More*	High	$
HVAC Systems		
• Upgrade cooling system in Office with high efficiency electric DX cooling system *Learn More*	High	$$$
• Add supply air temperature reset to HVAC system in Office *Learn More*	Low	$
Hot Water Systems		
• Upgrade service hot water system in Office with electric heat pump water heater *Learn More*	Medium	$$

[4] 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.

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

COMMERCIAL BUILDING ENERGY ASSET SCORE

STRUCTURE AND SYSTEMS

Building ID #: **XXXXX**

Gross Floor Area: **100,000 ft²**

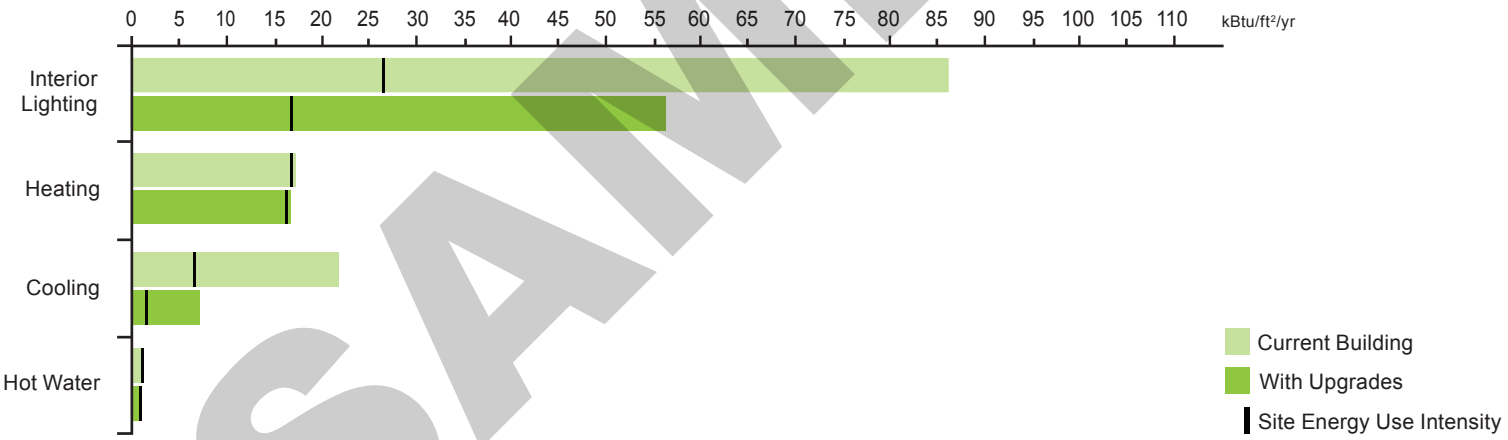
ABOUT THE BUILDING SYSTEMS

	Ranking[6]
Interior Lighting	Fair
Heating	Good
Cooling	Good
Overall HVAC Systems	Good
Hot Water	Fair

ABOUT THE BUILDING ENVELOPE

	Ranking[6]
Roof U-Value, Non-Attic (Btu/ft² h °F)	Good
Floor U-Value, Mass (Btu/ft² h °F)	Good
Walls U-Value, Framed (Btu/ft² h °F)	Good
Windows U-Value (Btu/ft² h °F)	Fair
Walls + Windows U-Value (Btu/ft² h °F)	Fair
Window Solar Heat Gain Coefficient	Fair

ENERGY USE INTENSITY BY END USE



[6] **Fair:** less efficient than ASHRAE 90.1-2004
Good: at least as efficient as ASHRAE 90.1-2004, but not more efficient than ASHRAE 90.1-2010 (Systems) or ASHRAE 90.1-2013 (Envelope)
Superior: more efficient than ASHRAE 90.1-2010 (Systems) or ASHRAE 90.1-2013 (Envelope)

*This value was not directly entered by the user. It was generated by the Asset Scoring Tool based on other building data provided. The user can re-score the building using actual information about this building characteristic if available.

U.S. DEPARTMENT OF ENERGY

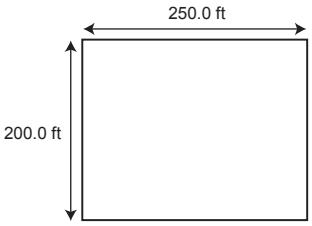
Building ID #: **XXXXX**

Gross Floor Area: **100,000 ft²**

BUILDING SYSTEM CHARACTERISTICS SUMMARY

Geometry

Above Ground:	2 floor
Below Ground:	0 floor
Floor-to-Floor Height:	14 ft
Floor-to-Ceiling Height:	9 ft
Orientation:	0.0° from North
Use Type:	Office



	Current Building
Roof	
Roof Type:	Built-up/EPDM w/metal deck
Roof U-Value:	U-0.056 BTU/(hr-ft °F)
Wall	
Exterior Wall Type:	Mass Wall–8” HW Concrete
Wall U-Value:	Estimated*
Floor	
Floor Type:	Slab-on-Grade
Windows	
Window Frame Type:	Metal
Glass Type:	Single pane
Gas Fill Type:	None
Window Layout:	Continuous
Window to Wall Ratio:	0.4
Window U-Value:	U-0.68 BTU/(hr-ft °F)
Window SHGC:	0.6
Window VT:	Estimated*

	Current Building
Shading	
Exterior Shading Type:	External overhang
Height Above Window:	0 ft
Projection:	2 ft
Skylight	
Skylights Installed:	No
Indoor Lighting	
Lighting Type:	T8
Mounting Type:	Recessed
Percent of Total Floor Area Served:	100%
Occupancy Controls:	Yes
Daylighting Controls:	No
Lighting Power Density:	Estimated*

*This value was not directly entered by the user. It was generated by the Asset Scoring Tool based on other building data provided. The user can re-score the building using actual information about this building characteristic if available.

*This value was not directly entered by the user. It was generated by the Asset Scoring Tool based on other building data provided. The user can re-score the building using actual information about this building characteristic if available.

Building ID #: **XXXXX**

Gross Floor Area: **100,000 ft²**

BUILDING SYSTEM CHARACTERISTICS SUMMARY

	Current Building
Cooling	
Cooling Type:	Packaged single zone DX
Year of Manufacture:	2005
Efficiency (COP):	Estimated*
Heating	
Heating Type:	Furnace
Year of Manufacture:	2005
# Pieces of Equipment:	1
Efficiency:	82%
Fuel Type:	Gas
Ventilation	
Fan Efficiency:	54%
Service Hot Water	
Fuel Type:	Gas
Heat Pump Installed:	No
Distribution Type:	Distributed
Water Heater Efficiency:	80%
Tank Volume:	Estimated*
Tank Insulation Thickness:	Estimated*

Facility Operation

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:	4W/ft²
Miscellaneous Gas Load:	0 kBtu/ft²
Opening Time - Closing Time:	8AM – 7PM
Total Occupants:	450
Setpoint, Heating:	72°F
Setpoint, Cooling:	76°F

*This value was not directly entered by the user. It was generated by the Asset Scoring Tool based on other building data provided. The user can re-score the building using actual information about this building characteristic if available.