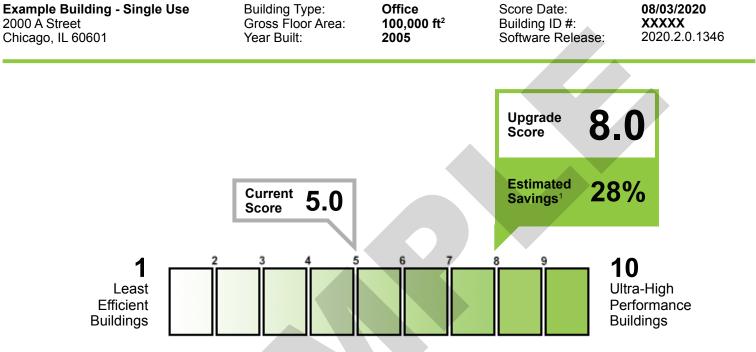


# OVERALL BUILDING SCORE

### **BUILDING INFORMATION**



Standard Occupancy and Operating Conditions		Estimated Source Energy Use (kBtu/ft <sup>2</sup> )		Energy Use Intensity by Fuel Type
Number of Assumed Occupants Hours of Operation	499 48.6 hrs/wk	Current Building Upgraded Building	154 111	Site Energy Use (kBtu/ft²) Source Energy Use (kBtu/ft²)
Cooling Set Point Heating Set Point Misc. Energy Loads	75° F 70° F 0.75 W/ft²			Fuel Type [ Site EUI , Source EUI ]         Gas [ 5.5, 5.8 ]         Electricity [ 47.3, 148.4 ]         District Hot Water [ 0.0, 0.0 ]         District Steam [ 0.0, 0.0 ]         Propane [ 0.0, 0.0 ]         Fuel Oil [ 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.

<sup>1</sup> Savings reflect the reduction in source energy that would result from undertaking all of the user-selected energy efficiency measures identified on the **Upgrade Opportunities** page. Actual savings will depend on a variety of factors including actual operating conditions.



This report is based on self-reported building information. http://energy.gov/eere/buildings/building-energy-asset-score



# UPGRADE OPPORTUNITIES

Building Name: Example Building - Single Use Gross Floor Area: 100,000 ft<sup>2</sup>

Cost Effective Upgrade Opportunities	Energy Savings <sup>3</sup>	Cost⁴
Building Envelope		
• Add air barrier to reduce building air leakage. <sup>†</sup> - Learn More	Low	\$\$
• Upgrade the window Window 1 in Office Block. <sup>†</sup> - <i>Learn More</i>	Medium	\$\$-\$\$\$
Lighting Systems		
• Replace existing lighting for Fixture 1 to LED lighting in Office Block. <sup>†</sup> - <i>Learn More</i>	Medium	\$
HVAC Systems and Controls		
• Implement demand controlled ventilation (DCV) in Office Block - Learn More	Medium	\$\$
Add variable frequency drive to supply fans in Office Block - Learn More	Medium	\$\$
Service Hot Water Systems		
Add low flow faucets in Office Block - Learn More	Low	\$\$

<sup>3</sup> 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.
<sup>4</sup> 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). <sup>†</sup> User-selected energy efficiency measure





# STRUCTURES AND SYSTEMS

Building Name: Example Building - Single Use

Gross Floor Area: 100,000 ft<sup>2</sup>

### ABOUT THE BUILDING SYSTEMS

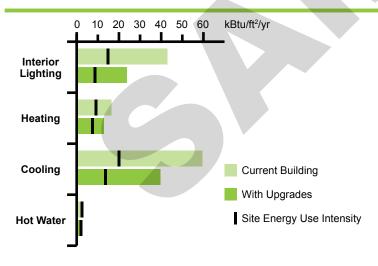
	Ranking⁵
Interior Lighting	Fair
Whole Building HVAC System TSPR	Fair
Air Handler 1	Fair

## ABOUT THE BUILDING ENVELOPE

	Ranking⁵
Roof U-Value, Non-Attic (Btu/tt²·h·°F)	Good
Walls U-Value, Framed (Btu/ft <sup>2</sup> ·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	Good

\*System evaluation is not based on a verified TSPR

### SOURCE ENERGY USE INTENSITY BY END USE



<sup>5</sup> 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.
 N/A: The building does not have a heating or a cooling system, or the loads are too low for the system to be effectively ranked.





## **BUILDING ASSETS**

Building Name: Example Building - Single Use

### Office Block CHARACTERISTICS SUMMARY

#### Geometry

Geometry				Current Building
Above Ground: Below Ground:	2 floors 0 floors		Window VT	Estimated
Floor-to-Floor Height Floor-to-Ceiling Height:	14.00 ft 9.00 ft		Window Layout	Continuous
Orientation: Use Type:	0.0° from North Office	5200	Window-to-Wall Ratio	0.4
	000		Exterior Shading Type	External Overhangs
		<u>↓</u> ∢>	Infiltration	
		200′ Current Building	Energy code the building complies with	Estimated
			Lighting	
Roof			Lighting Power Density	1.08 W/ft <sup>2</sup>
Roof		Roof 1	Fixture	Fixture 1
Roof Type	Roof Type Built-up w/ metal deck		Lighting Type	Fluorescent T8
Roof U-value		0.056 Btu/°F·ft <sup>2</sup> ·h	Mounting Type	Recessed
Skylights			Lamp Wattage	32 W/lamp
Na Oludiata			Lamps per Fixture	2
No Skylights			Percent Served	100.0%
Floor			Occupancy Controls	
Floor		Floor 1	Heating/Cooling	
Floor Type		Slab-on-Grade	Thermal Zone Layout	Perimeter and core
Slab Insulation		No Insulation	Perimeter Zone Depth	15.0 ft
Floor U-value		Estimated	Primary Heating/Cooling System	Air Handler 1
Walls and Windows			Cooling Equipment	
All Surfaces			Cooling Source	Central DX
Wall		Wall 1	Efficiency	Estimated
Wall Type		Brick/Stone on masonry	Heating Equipment	
Wall U-value		Estimated	Heating Source	Central Furnace
Window		Window 1	Fuel Type	Natural Gas
Window Framing Type		Metal	Thermal Efficiency	82.00%
Window Glass Type		Single Pane	Distribution	
Window Gas Fill Type		None	Distribution Type	Single Zone
Window U-value		0.68 Btu/°F·ft²·h	Fan Systems	
Window SHGC		0.6	Fan Motor Efficiency	84.0%

<sup>\*</sup> 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

### Gross Floor Area: 100,000 ft<sup>2</sup>

" Standard operating assumptions are used for building optimization if no values are entered by the user.



## **BUILDING ASSETS**

### Building Name: Example Building - Single Use

#### Gross Floor Area: 100,000 ft<sup>2</sup>

	Current Building
Fan Mechanical Efficiency	56.0%
Fan Control	Constant Volume
Service Water Heating	
Water Heater	Natural Gas
Fuel Type	Natural Gas
Water Heater Efficiency	80.00%
Operations	
The information in this section is not r	required and does not affect the current Asse

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.

Operation	Operation 1
Miscellaneous Electric Load	4.0 W/ft <sup>2</sup>
Miscellaneous Gas Load	Standard"
Total Occupants	450 total occupants
Setpoint Heating	72.0 °F
Setpoint Cooling	76.0 °F
Weekdays	8:00am - 7:00pm

\* 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.

