



# Fort Atkinson School District

## Through December 31, 2012

### Energy Summary

February 2013

# Overview

- All schools are ENERGY STAR certified for 2012
- Purdy recognized as a 2012 National Green Ribbon School
- District nominated for 2013 National Green Ribbon District
- Geothermal in Barrie, Purdy, Rockwell Elementary and Middle School
- Additional renewable energy systems
  - Middle School pool solar heating
  - High School pool solar heating
  - Purdy solar electric
  - High School wind turbine
- Lighting Upgrades
  - 32 W T12 to 30 W T8: Savings have paid for upgrade in less than 4 years
- New pool dehumidifier installed for High School Pool – Summer 2012

# Savings

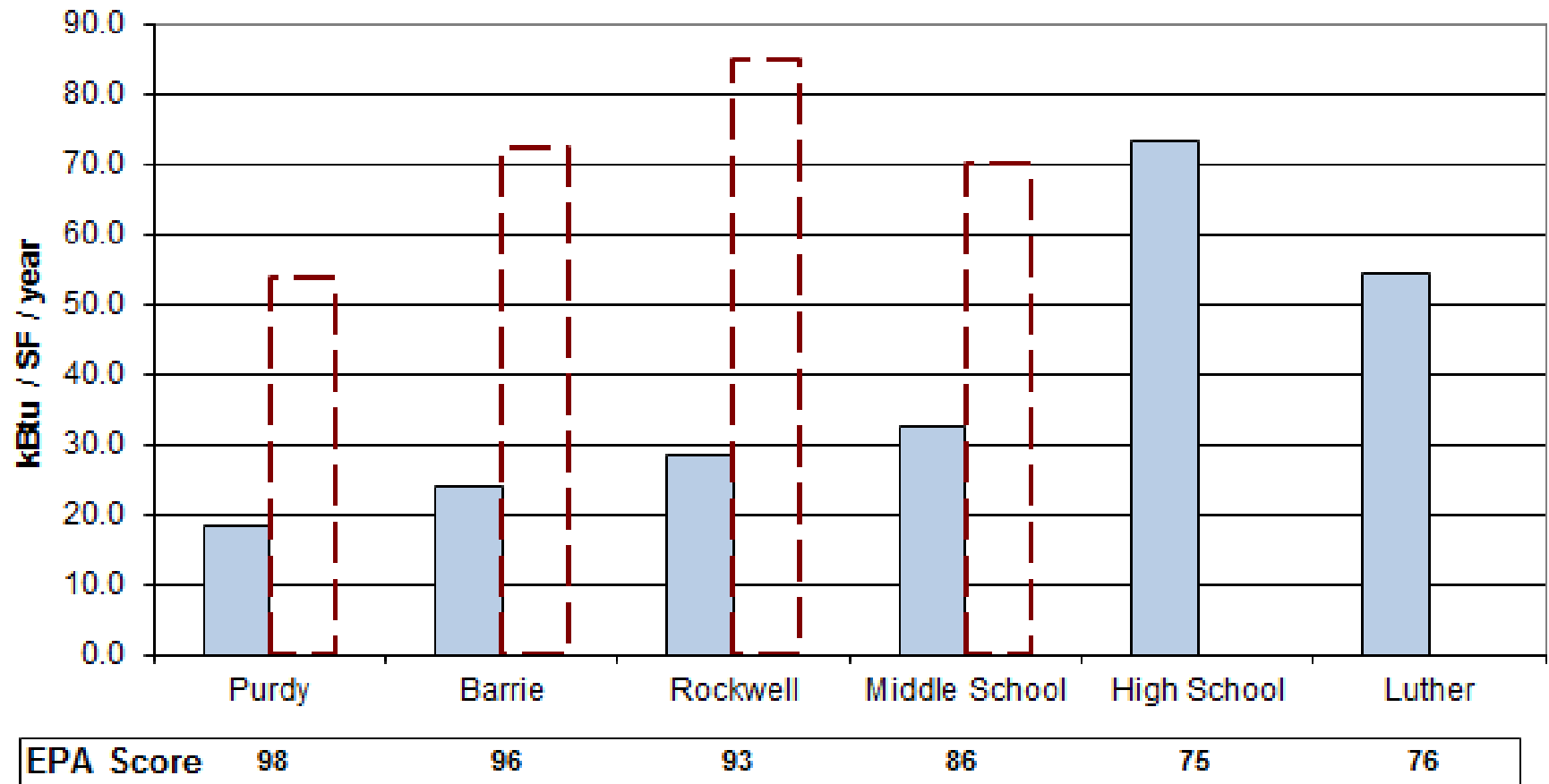
	<u>Savings</u>	<u>Outlay</u>
• Lighting Upgrade - Lifetime (2007-2012)	~\$437,000	\$273,298
• Geothermal - Lifetime (2007-2012)	~256,500	\$1,040,000
• Solar Hot Water @ Middle School - Lifetime (2009-2012) 8,580 therms	~\$11,000	\$25,185
• Solar Hot Water @ High School - Lifetime (2009-2012) 6,507 therms	~\$8,200	\$52,930
• Solar Electric @ Purdy - Lifetime (2010-2012) 64,325 kWh	~\$7,100	\$12,399
• Wind Turbine @ High School - Lifetime (2011-2012) 151,327 kWh	~\$16,700	\$145,708
Totals	~\$736,500	\$1,549,527

# 2012 Energy Summary

January 2012 through December 2012

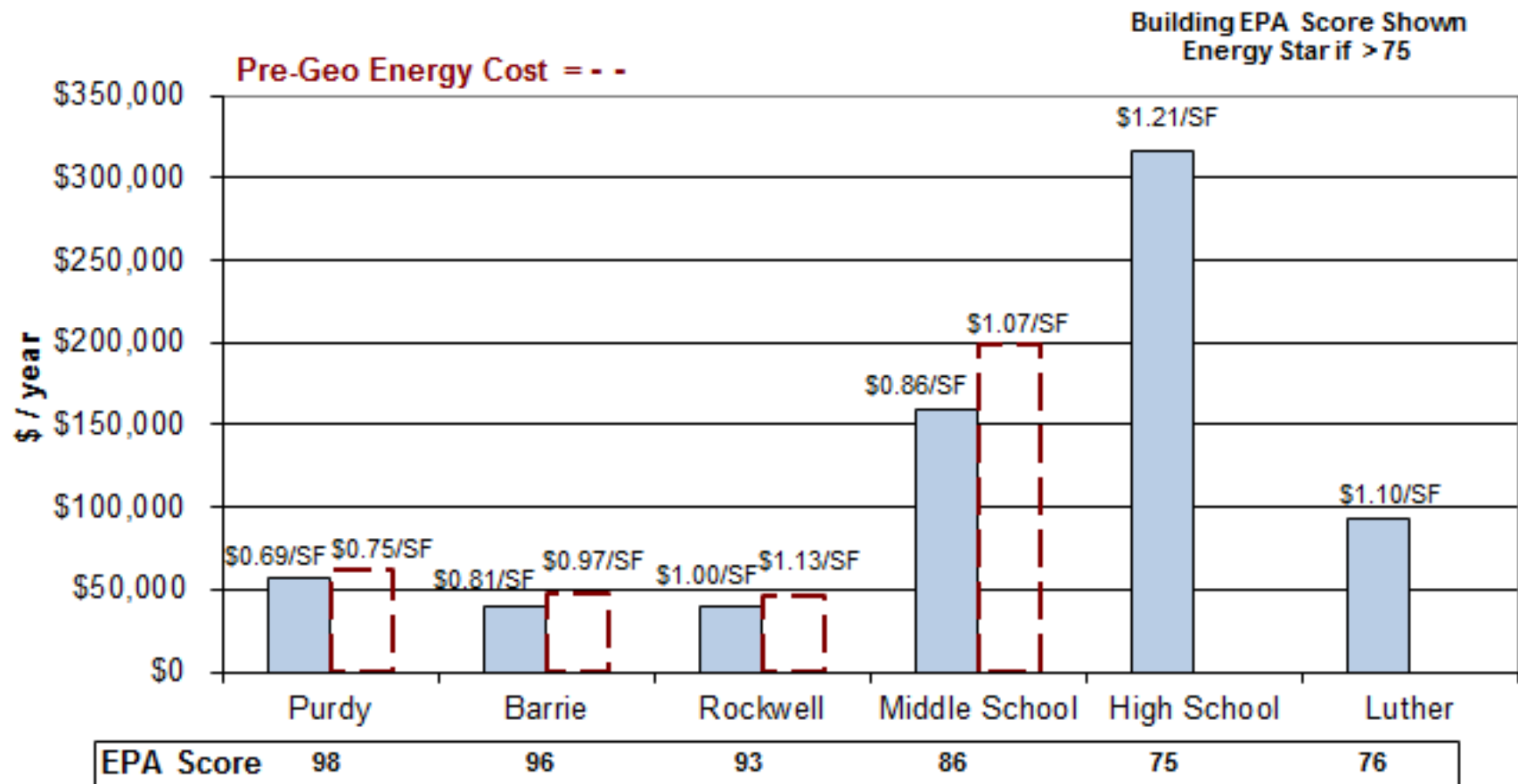
Pre-Geo Energy Use = - -

Building EPA Score Shown  
Energy Star if >75



# 2012 Cost Summary

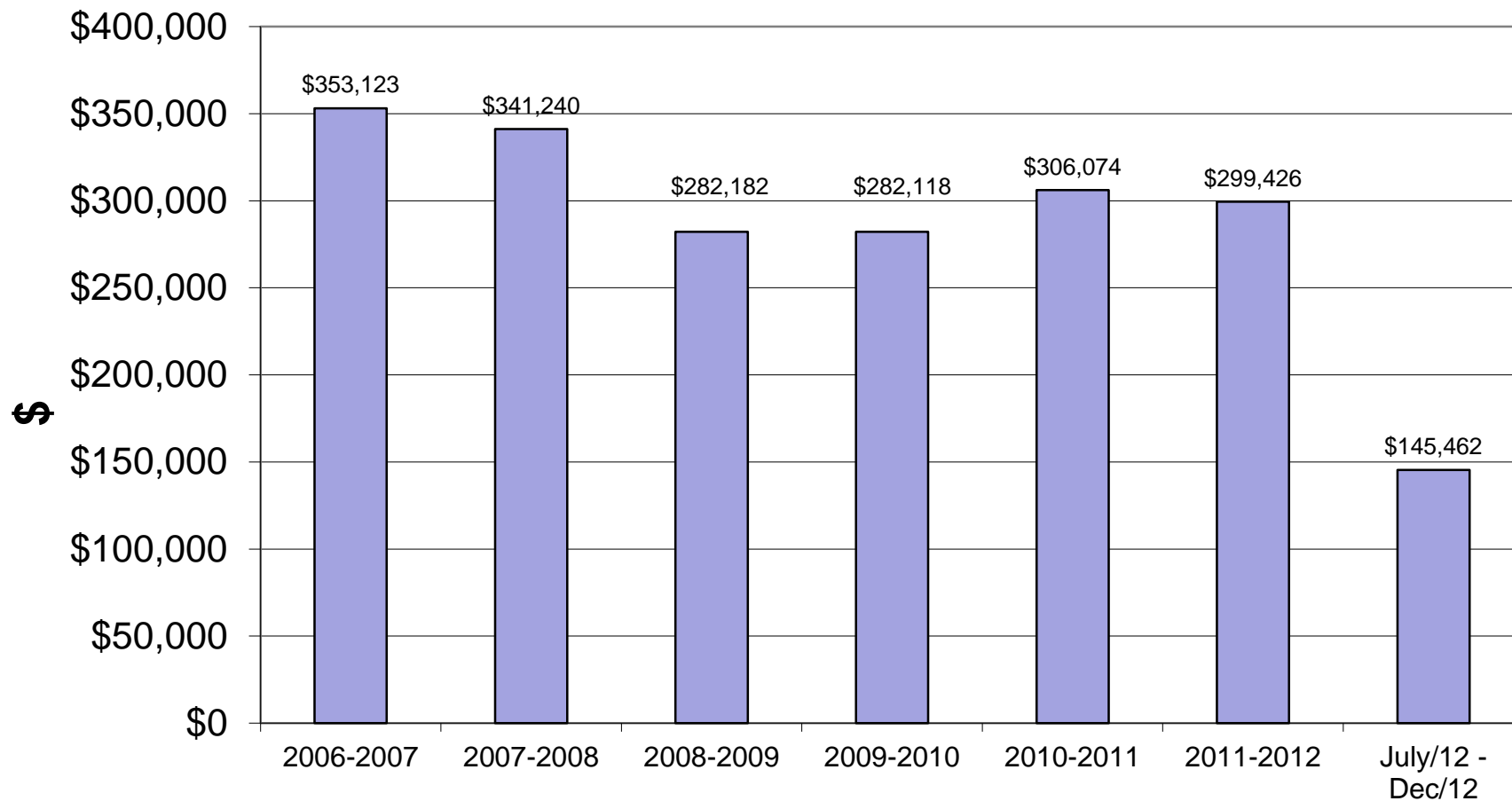
January 2012 through December 2012



Total gas/electric expenditure for all buildings 2012: ~\$782,500

# Cost Summary for Geothermal Schools

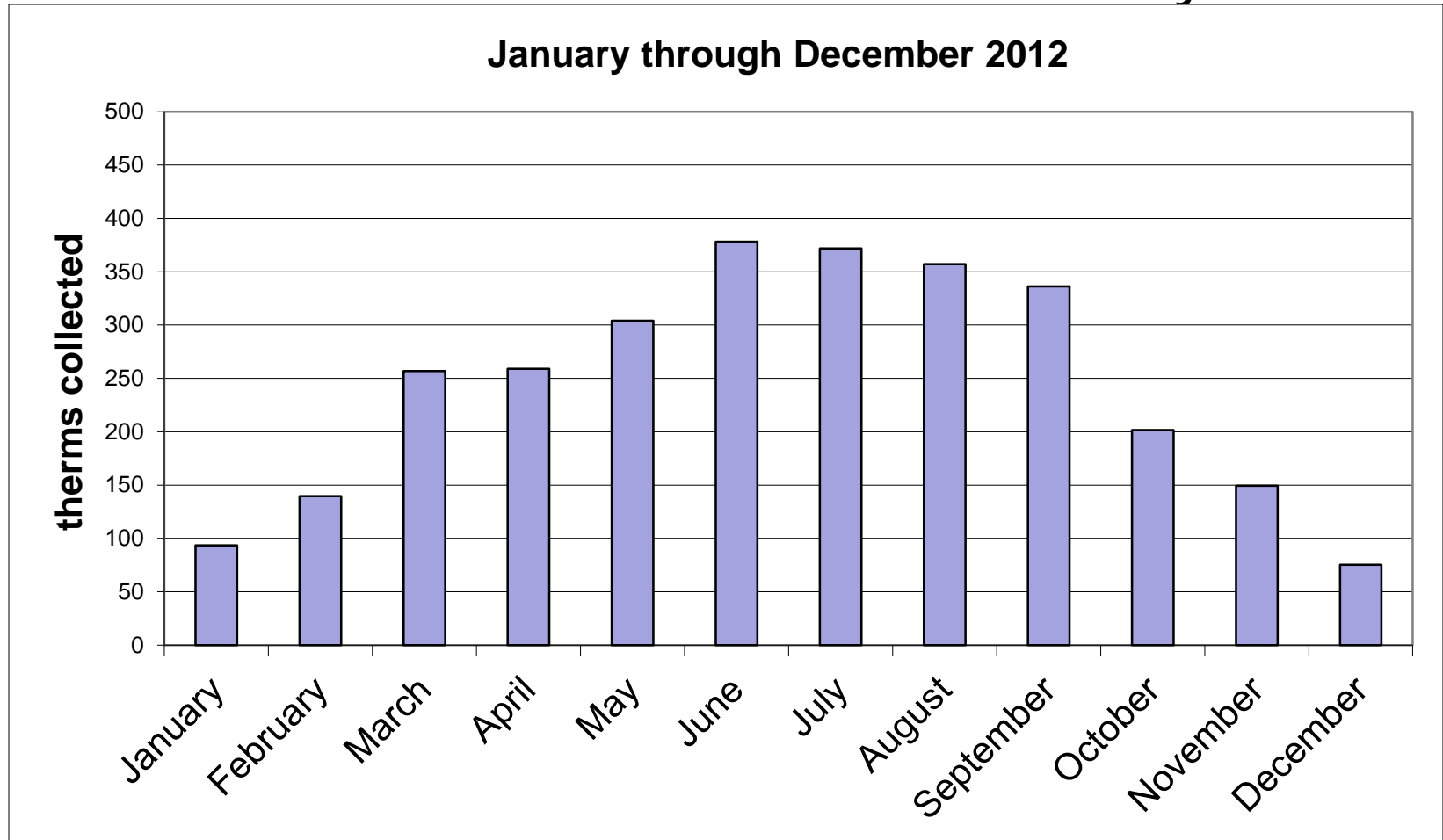
**2007-2008 (3 Elementary)  
2008-2009 (Middle School)**



Total Savings: \$256,513

**Fiscal Year**

# Middle School Solar Hot Water System



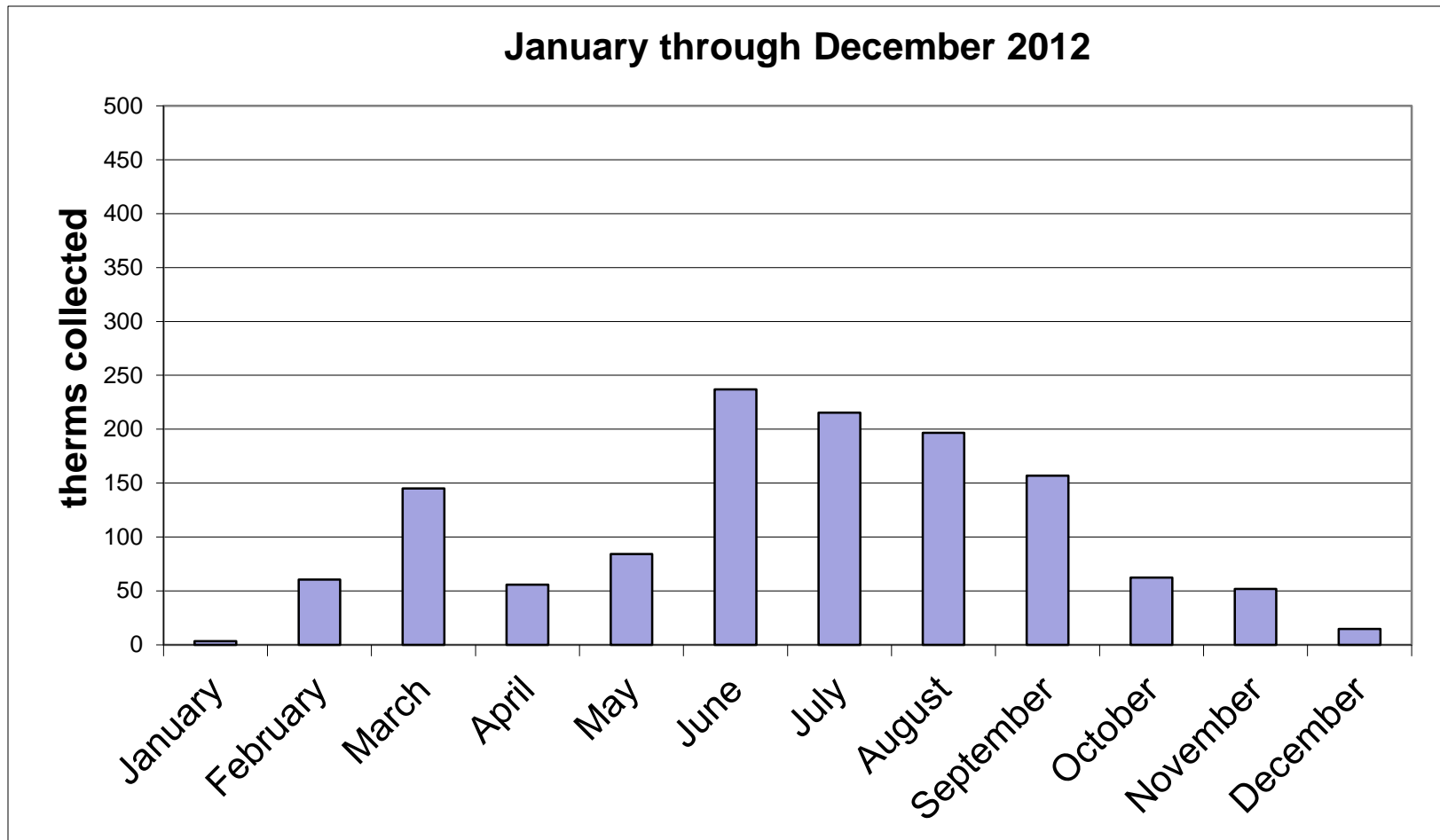
2,923 therms collected = ~3,654 therms avoided gas use in 2012

Exceeds projection

2012 gas cost avoidance of ~\$3,000

Lifetime through 12/31/2012: 8,580 therms and ~\$11,000

# High School Solar Hot Water System



1,283 therms collected = ~1,604 therms avoided gas use in 2012

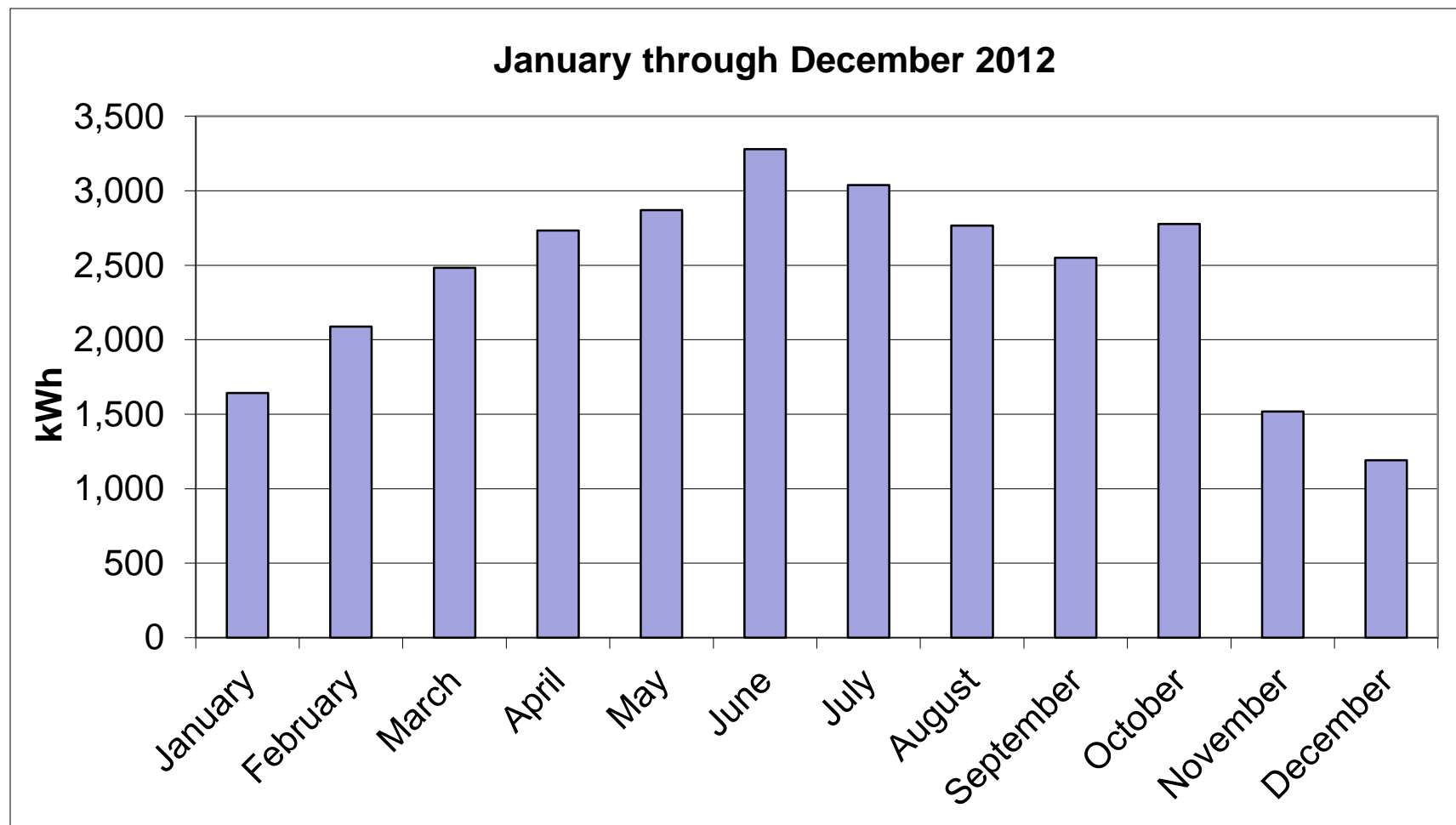
Less than projected

2012 gas cost avoidance of ~\$1,400

Lifetime through 12/31/2012: 6,507 therms and ~\$8,200



# Purdy Solar Electric System



28,941 kWh collected in 2012

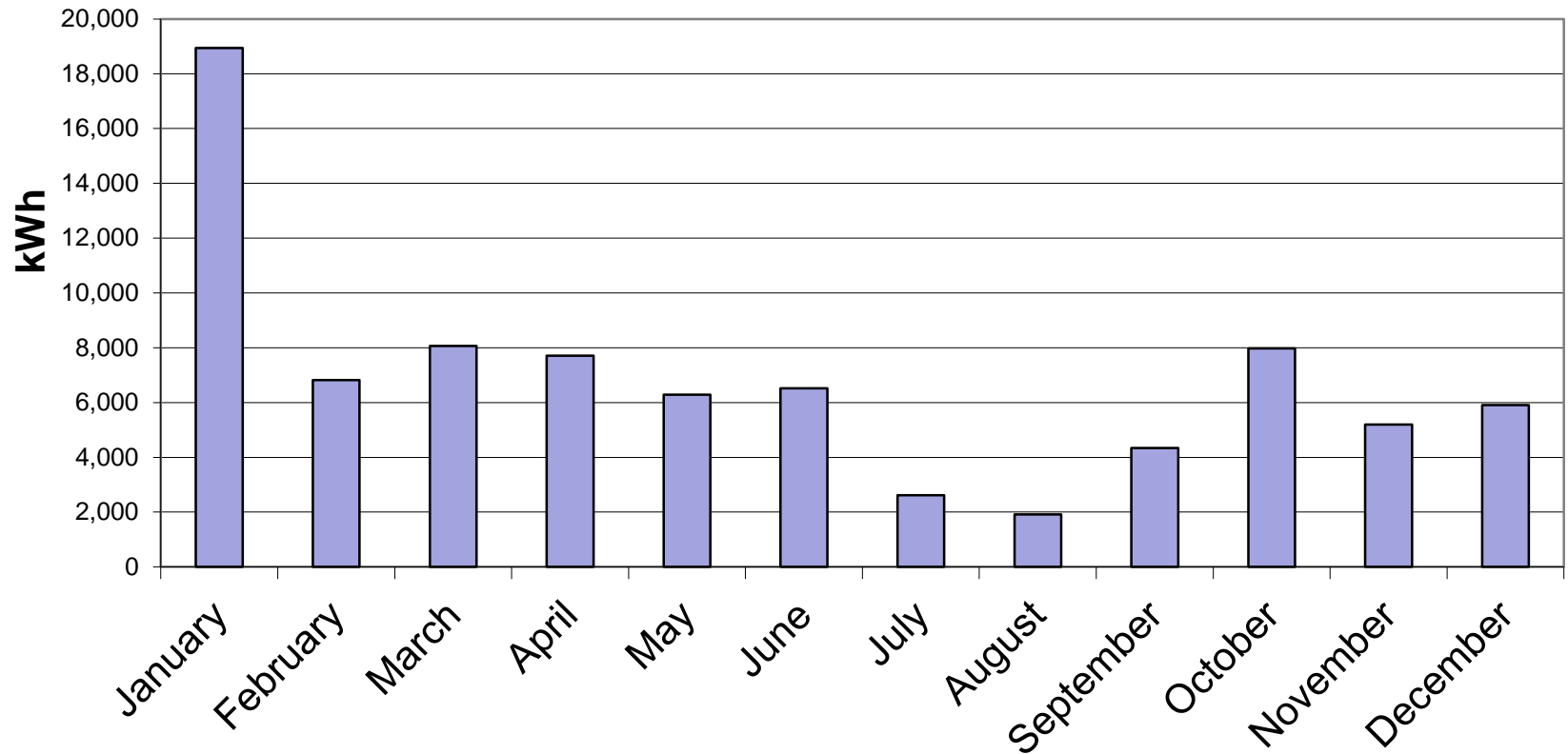
Exceeds projection

2012 electric cost avoidance of ~\$3,200

Lifetime through 12/31/2012: 64,325 kWh and ~\$7,100

# High School Wind Turbine System

January through December 2012



82,289 kWh collected in 2012

Slightly less than projected

2012 electric cost avoidance of ~\$9,100

Lifetime through 12/31/2012: 151,327 kWh and ~\$16,700

# Possible Future Projects

- Rockwell Solar Electric
  - Roof system similar in size to Purdy (20 kW on gym)
  - Additional small ground mounted array – highly integrated with classroom studies
  - Focus grant: \$56,000
- Lighting Upgrades
  - 30 W T8 to 28 W T8: When replacements necessary
  - LED replacement on select exterior lights