

# Fort Atkinson School District

## Through December 31, 2013

### Energy Summary

February 2014

# Overview

- Four schools are ENERGY STAR certified for 2013.
  - **Luther and the High School Fell Short**
- Purdy recognized as a National Green Ribbon School & The District as a 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**
  - **Rockwell 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**
  - **30 W T8 to 28 W T8: When replacements necessary.**
  - **LED replacement in select areas.**
- New pool dehumidifier installed for High School Pool

# Savings

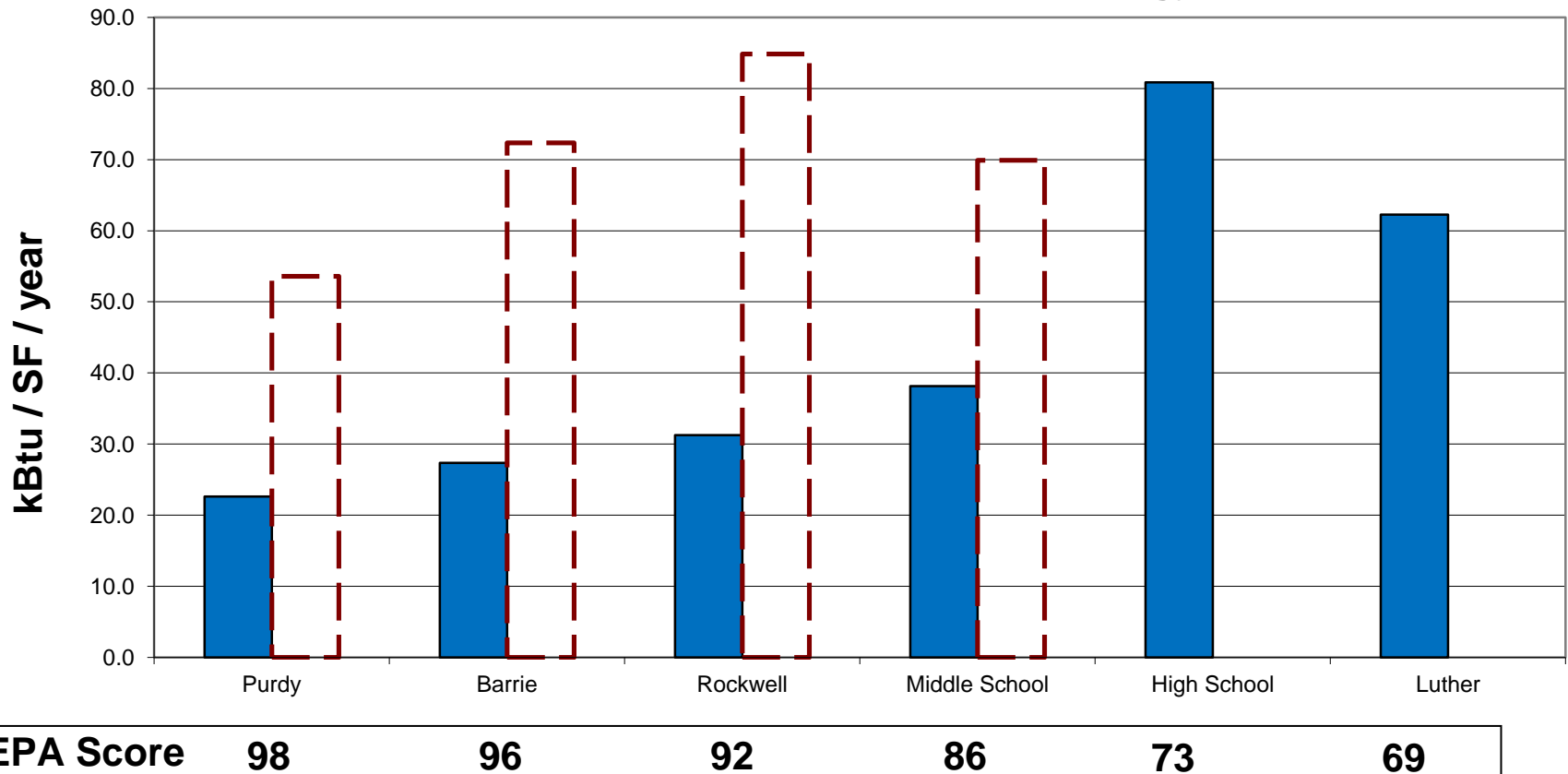
	<u>Savings</u>	<u>Outlay</u>
<ul style="list-style-type: none"> <li>• <b>Lighting Upgrade</b> - Lifetime (2007-2013) 12/06</li> </ul>	~\$507,000	\$273,298
<ul style="list-style-type: none"> <li>• <b>Geothermal</b> - Lifetime (2007-2013) 9/1/07 &amp; 9/1/08</li> </ul>	~\$270,000	\$1,040,000
<ul style="list-style-type: none"> <li>• <b>Solar Hot Water @ Middle School</b> - Lifetime (2009-2013) 10,983 therms 10/31/08</li> </ul>	~\$13,400	\$25,185
<ul style="list-style-type: none"> <li>• <b>Solar Hot Water @ High School</b> - Lifetime (2009-2013) 8,570 therms 10/31/08</li> </ul>	~\$10,200	\$52,930
<ul style="list-style-type: none"> <li>• <b>Solar Electric @ Purdy</b> - Lifetime (2010-2013) 89,750 kWh 7/28/10</li> </ul>	~\$10,500	\$12,399
<ul style="list-style-type: none"> <li>• <b>Wind Turbine @ High School</b> - Lifetime (2011-2013) 231,674 kWh 4/4/11</li> </ul>	~\$26,900	\$145,708
<ul style="list-style-type: none"> <li>• <b>Solar Electric @ Rockwell</b> - Lifetime (2013) 5,000 kWh 9/9/13</li> </ul>	~\$650	\$68,180
<ul style="list-style-type: none"> <li>• <b>Pool Vent Unit @ High School</b> - Lifetime (2012-2013) 18,000 therms and 179,370 kWh 3/30/12</li> </ul>	~\$37,000	\$136,964
Totals	~\$875,650	\$1,754,664

# 2013 Energy Summary

January 2013 through December 2013

Pre-Geo Energy Use = - -

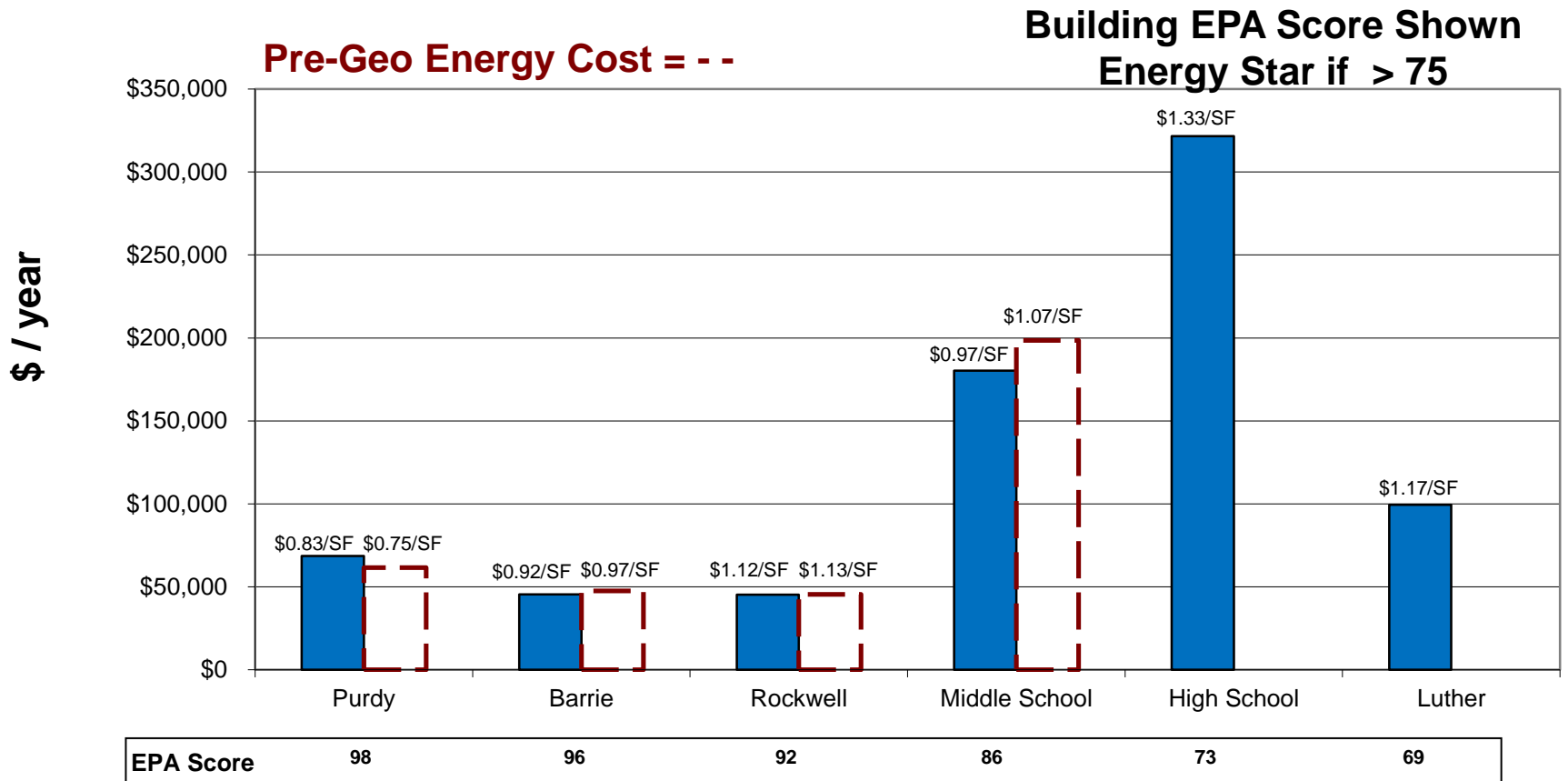
Building EPA Score Shown  
Energy Star if > 75



Energy use is up 10-20% district wide compared to 2012

# 2013 Cost Summary

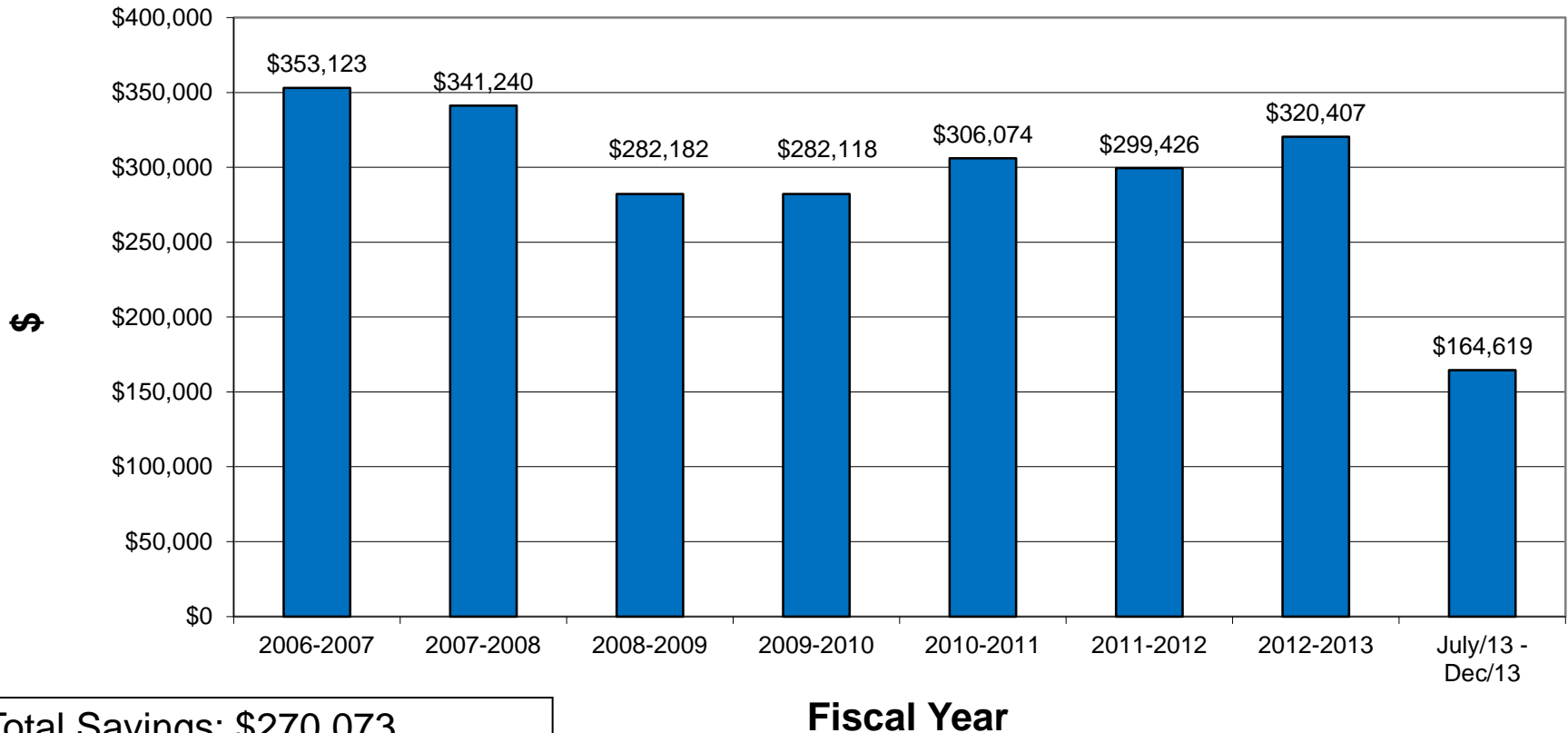
January 2013 through December 2013



Total gas/electric expenditure for all buildings 2013: ~\$788,300  
Energy cost is up at geo schools 13-20% and 2-7% at non-geo

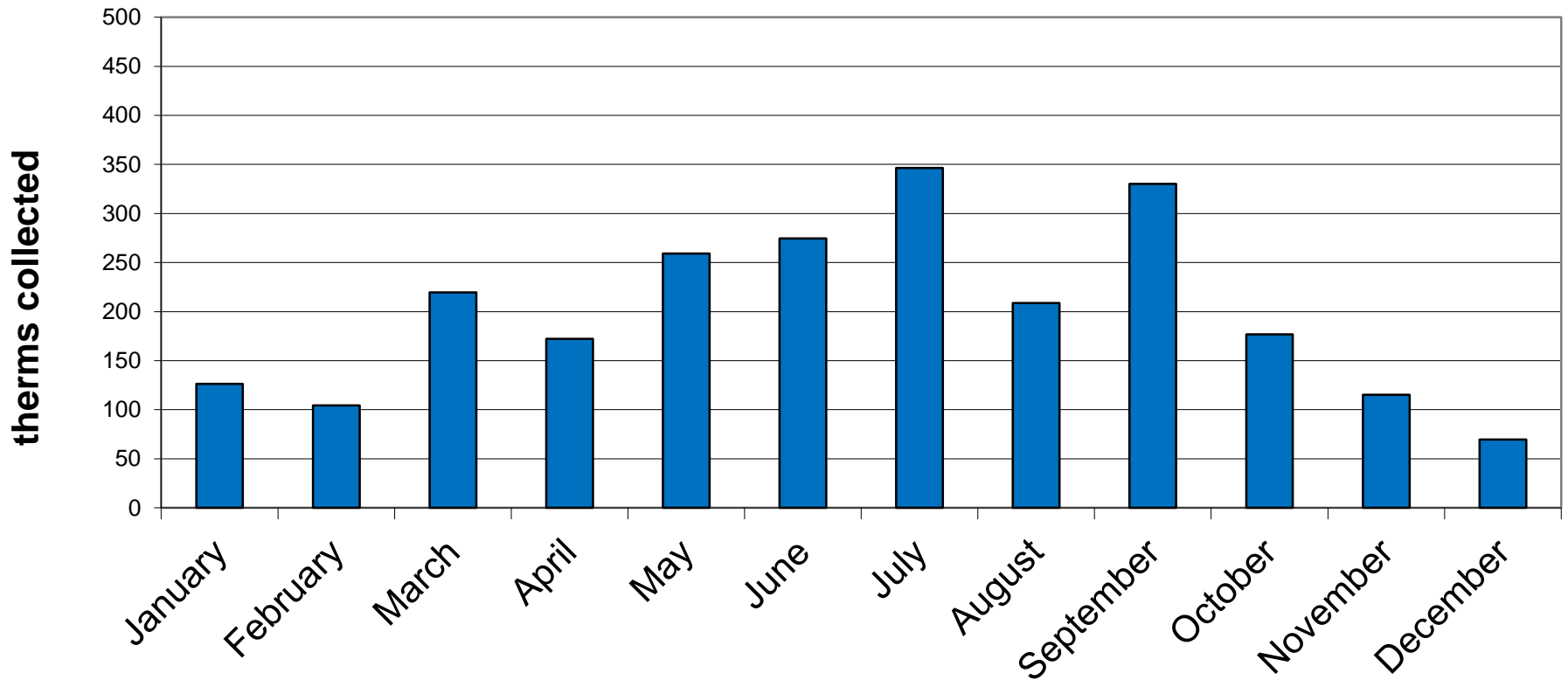
# Cost Summary for Geothermal Schools

**4 Geothermal Schools  
2007-2008 (3 Elementary)  
2008-2009 (Middle School)**



# Middle School Solar Hot Water System

January to December 2013 Collection



2,403 therms collected = ~3,004 therms avoided gas use in 2013

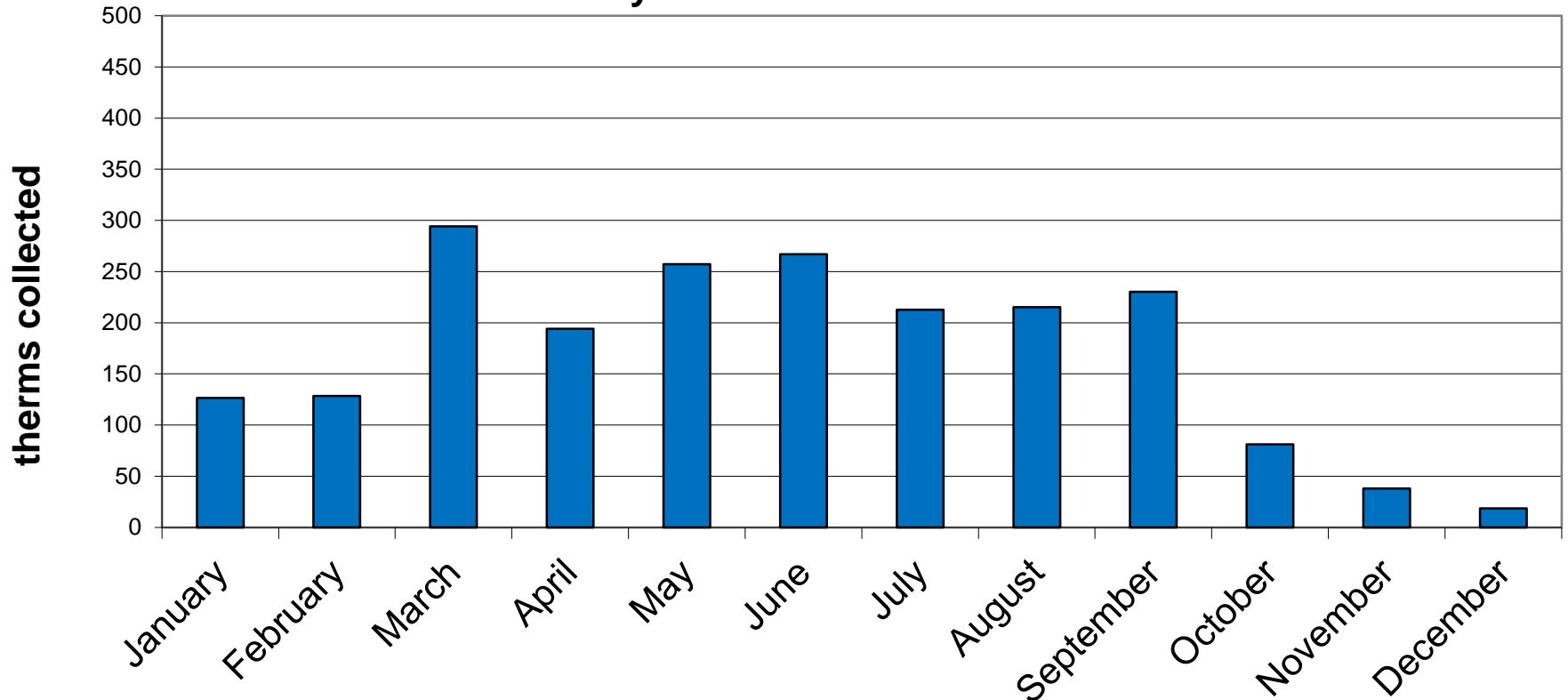
Meets projection

2013 gas cost avoidance of ~\$2,400

Lifetime through 12/31/2013: 10,983 therms and ~\$13,400

# High School Solar Hot Water System

January to December 2013 Collection



2,063 therms collected = ~2,600 therms avoided gas use in 2013

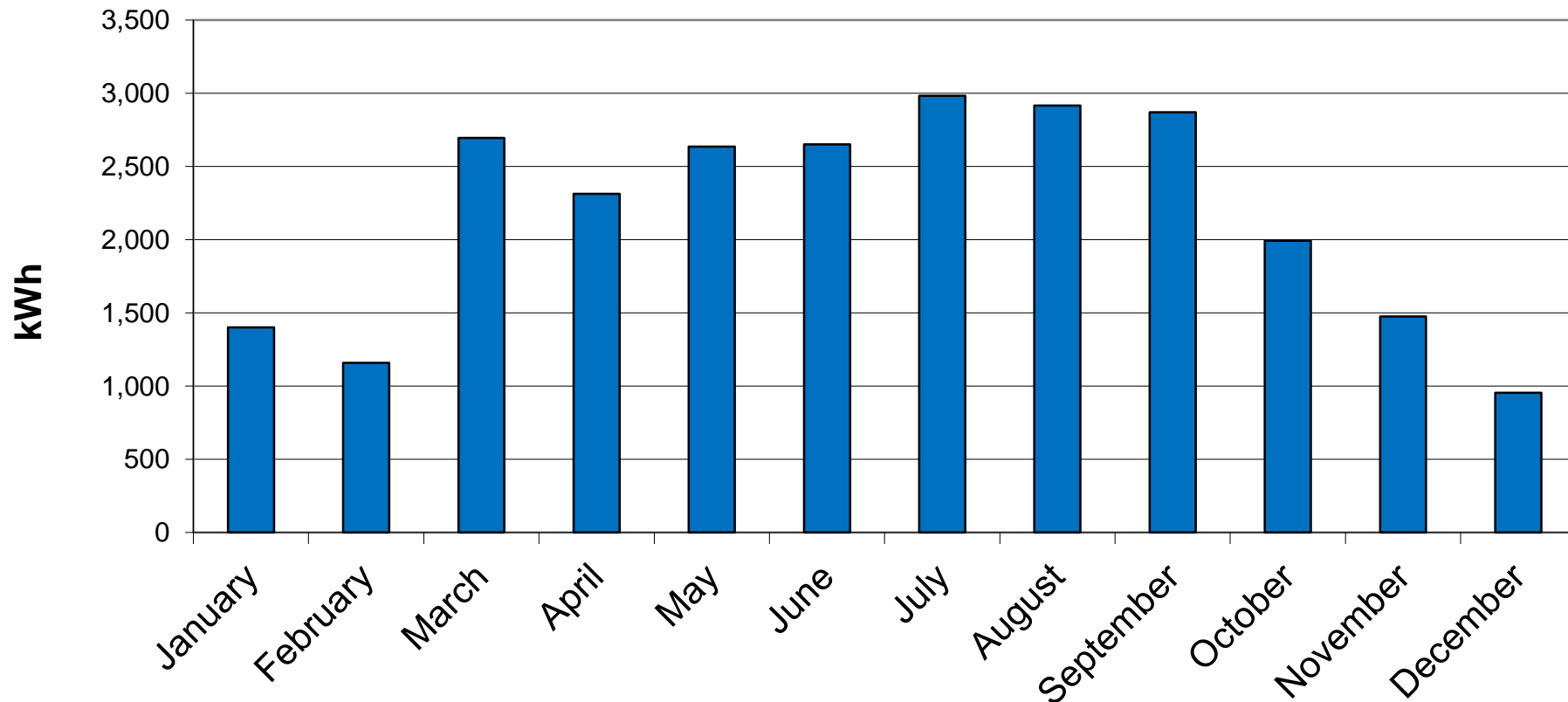
Lower than projections

2013 gas cost avoidance of ~\$2,000

Lifetime through 12/31/2013: 8,570 therms and ~\$10,200

# Purdy Solar Electric System

January through December 2013 Energy Production



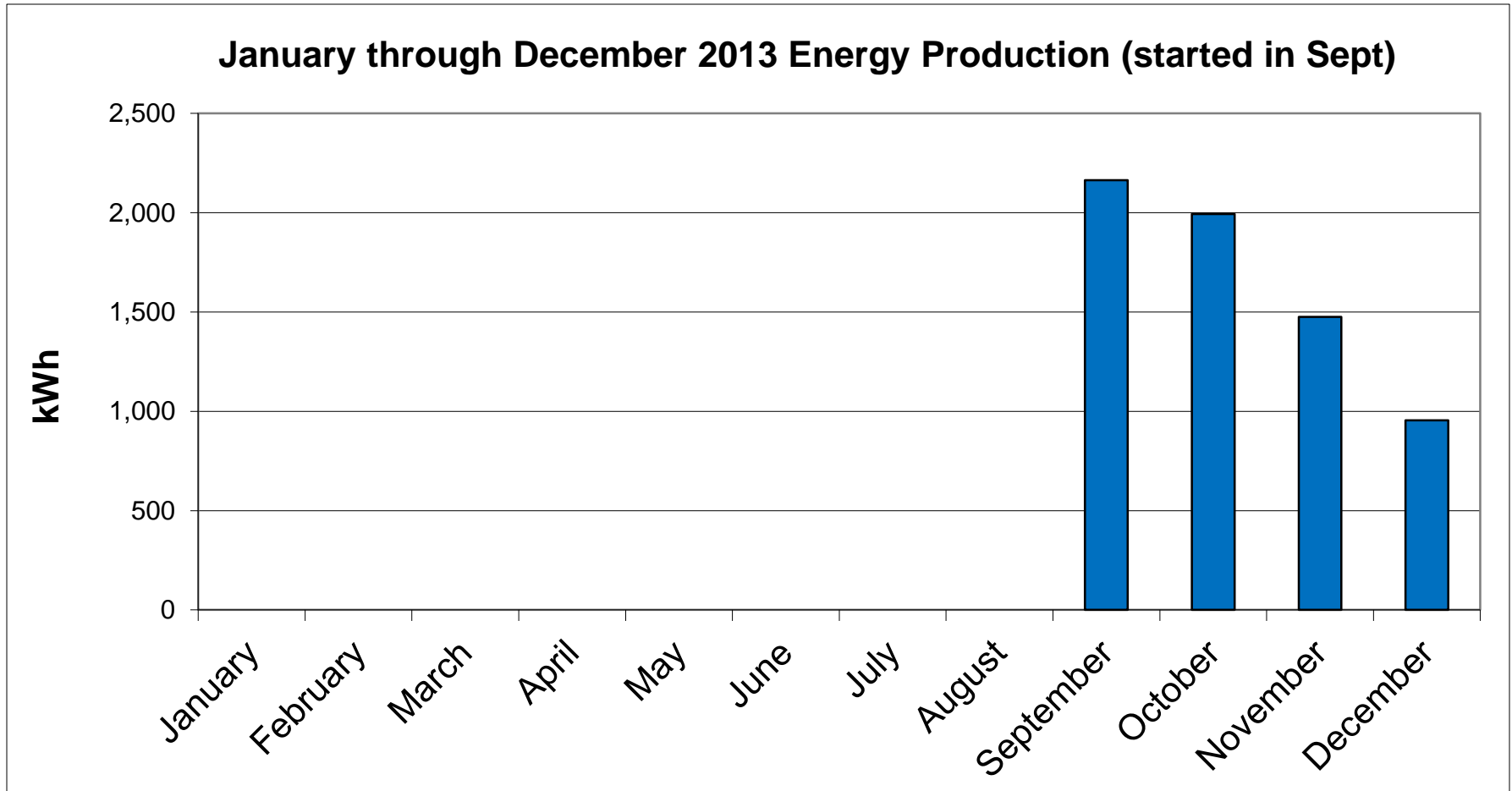
26,052 kWh collected in 2013

Met projection

2013 electric cost avoidance of ~\$3,400

Lifetime through 12/31/2013: 89,750 kWh and ~\$10,500

# Rockwell Solar Electric System



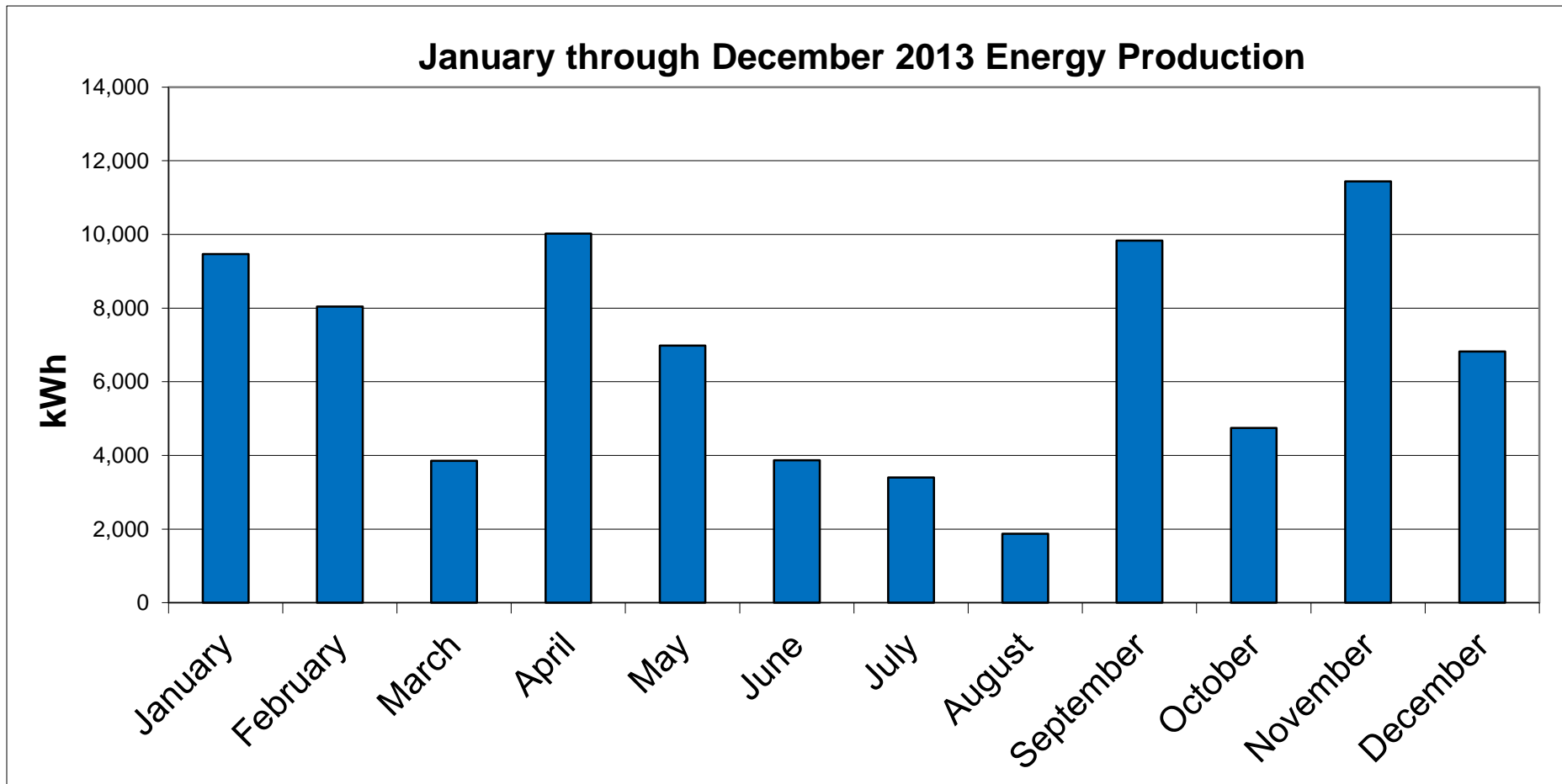
~5,000 kWh collected in 2013

Meets projection

2013 electric cost avoidance of ~\$650

Lifetime through 12/31/2013: ~5,000 kWh and ~\$650

# High School Wind Turbine System



80,343 kWh collected in 2013

Slightly less than projected

2013 electric cost avoidance of ~\$9,400

Lifetime through 12/31/2013: 231,674 kWh and ~\$26,900