



CITY OF SAN PABLO
City of New Directions



Municipal Solar Project Update

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Background

- In 2012 Council approved the Municipal Solar Project
- Installed a total 320 kW of solar PV systems on
 - City Hall
 - Church Ln Senior Center
 - Police Department



Overview

- Review pre-project projections
- Perform a comparison of each site
- Compare pre-project projections with actual results
- Review projected vs. actual cash flow of the project

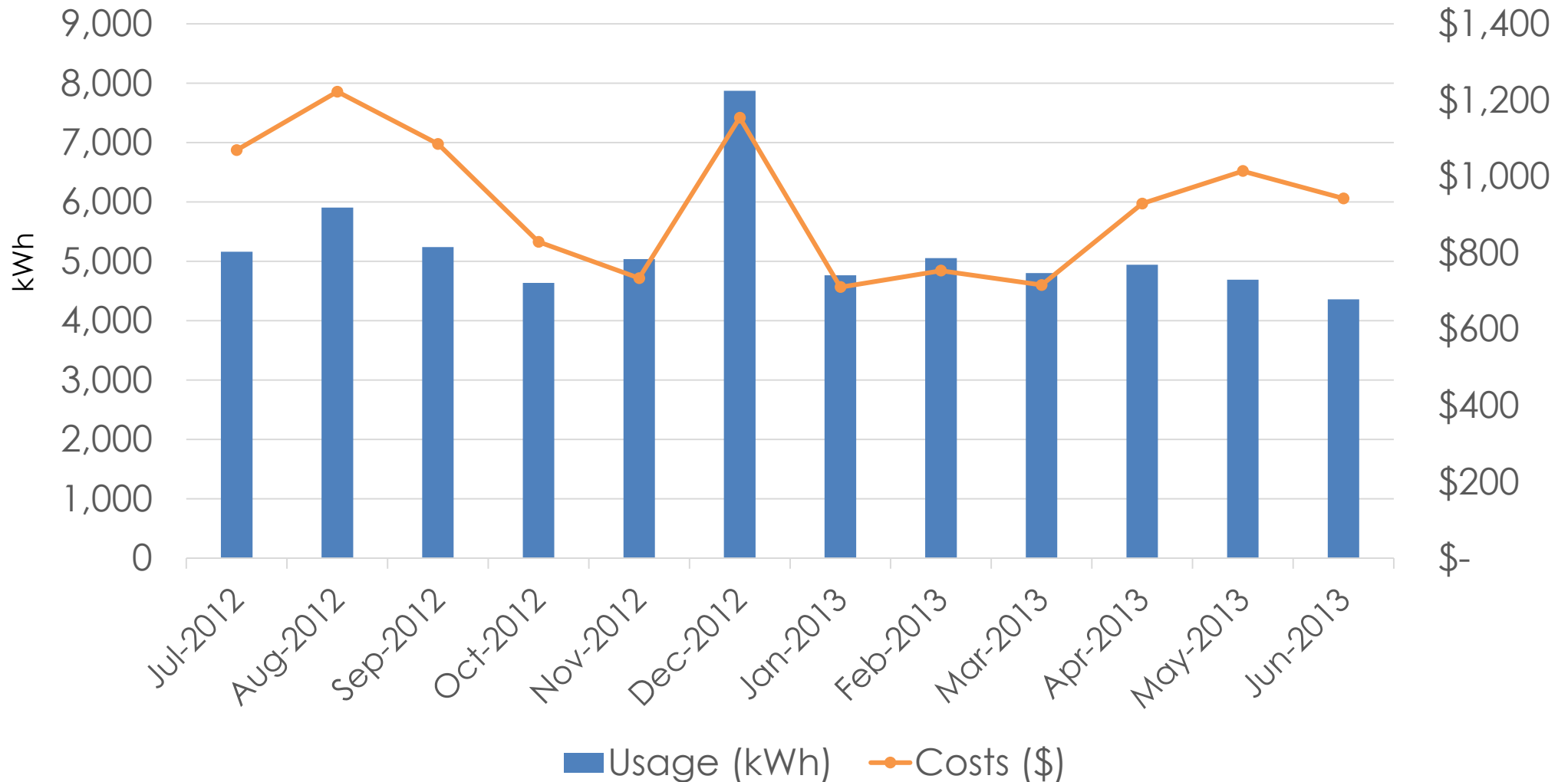
Pre-Project Electricity Usage and Costs

- Purchased over 626,000 kWh of electricity
- Costing over \$98,000 annually
- Solar PV was projected to provide 70% of the electricity for the combined 3 sites
- Project to save over \$87,000 per year

Senior Center- Before Solar

2012-2013 Electricity Usage and Costs

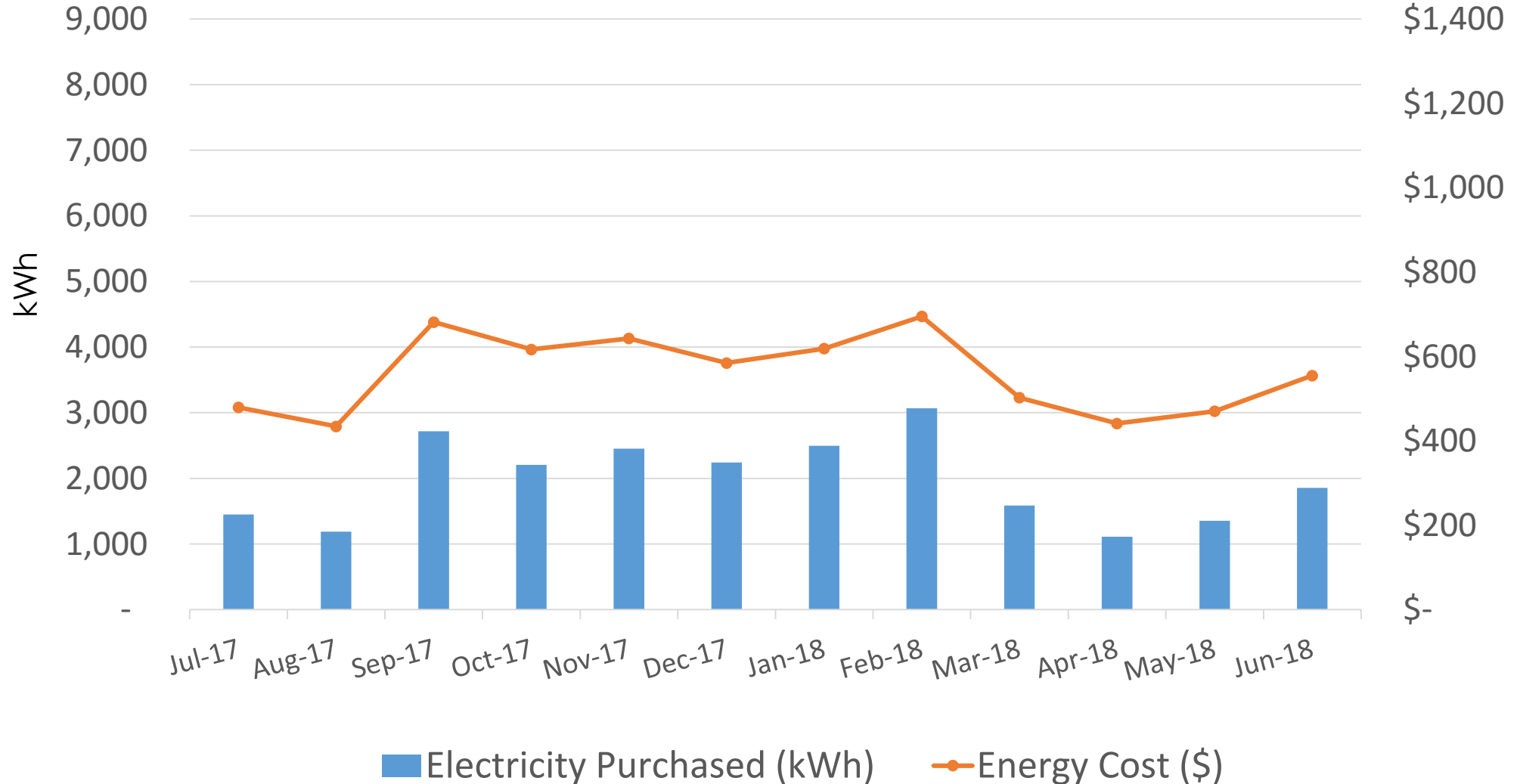
- Average monthly purchased electricity **5,188 kWh**
- Average monthly costs **\$926**



Senior Center- After Solar

2017-2018 Senior Center Electricity Usage and Cost

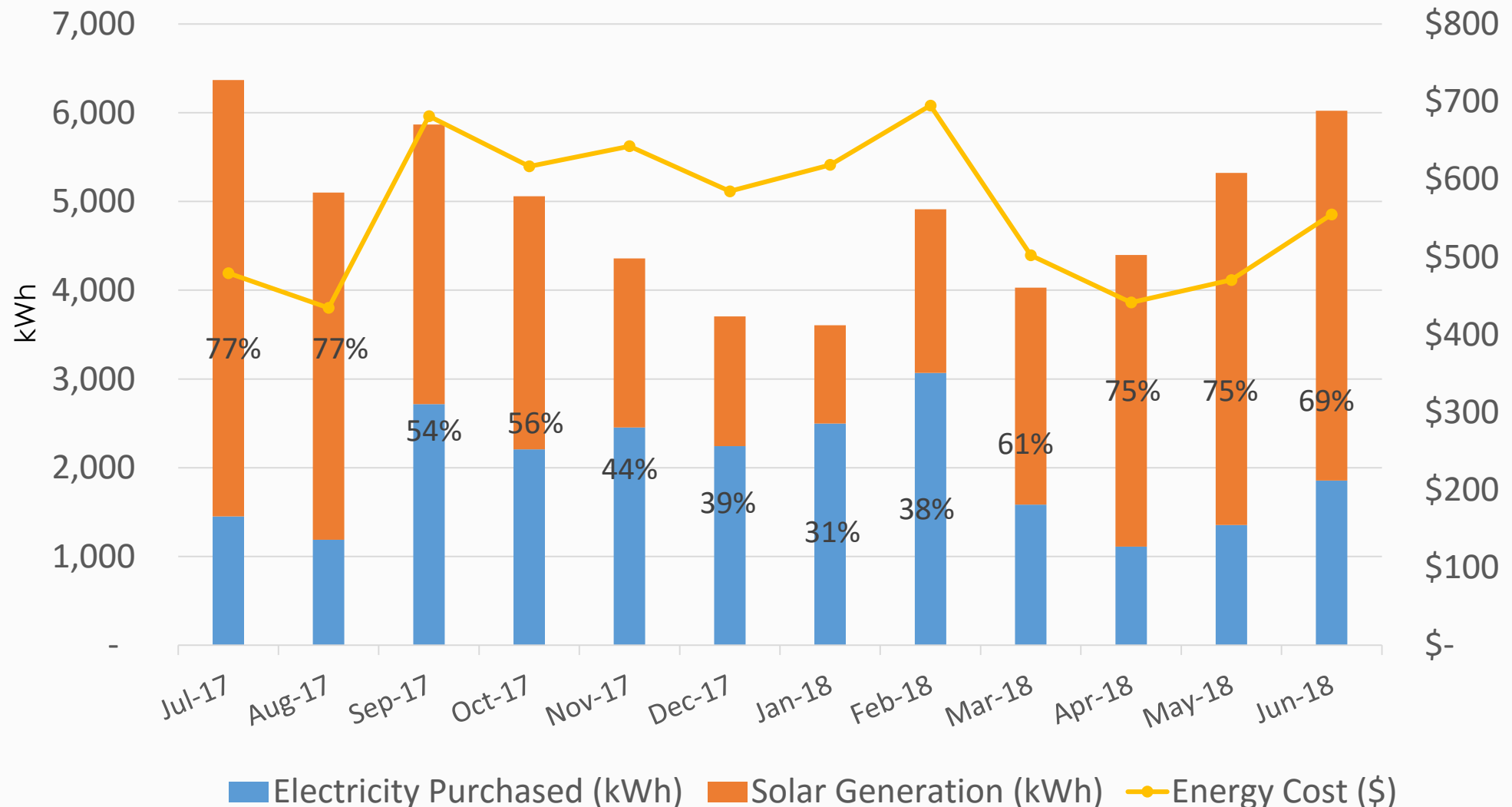
- Average monthly purchased electricity **1,977 kWh**
- Average monthly costs **\$560**
- Average monthly solar generation **2,918 kWh**



Senior Center

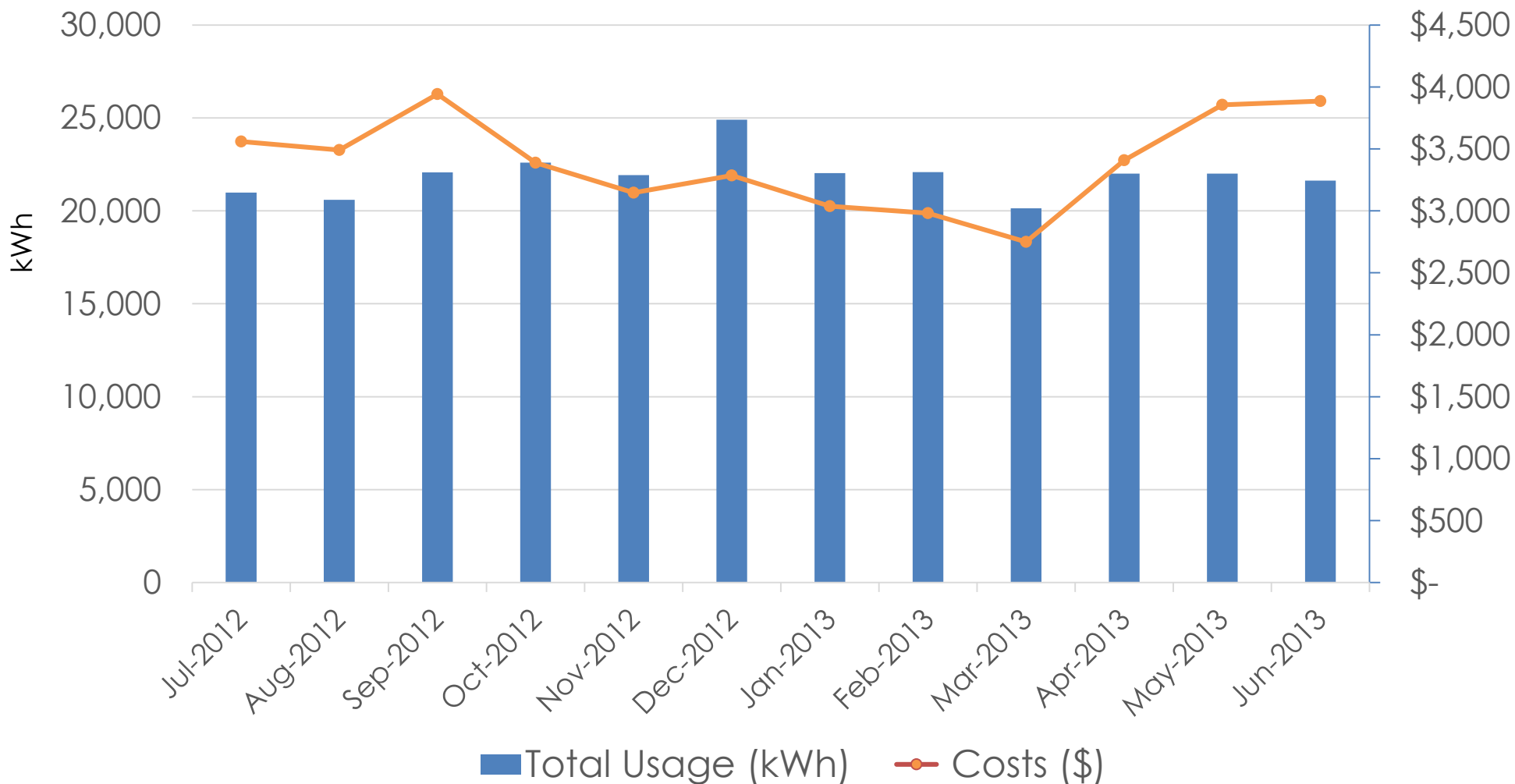
- Solar PV covered **60%** of annual electricity usage.
- Annual costs are **down 68%**
- Annual solar generation is **35,020 kWh-GHG equivalent of taking 5 cars off the road**

2017-2018 Electricity Usage, Generation & Cost



City Hall - Before Solar

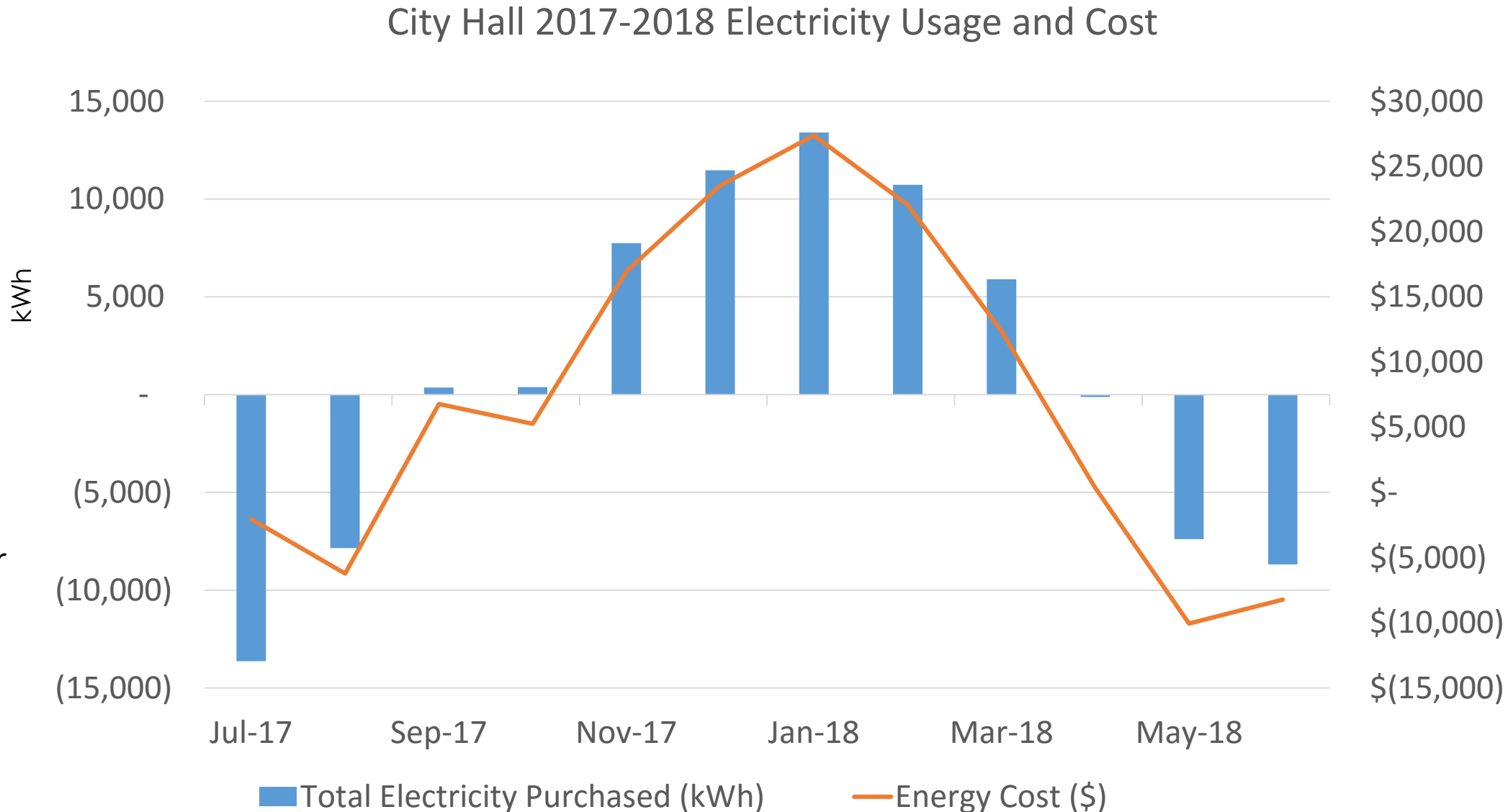
2012-2013 City Hall Electricity Usage and Costs



- Average monthly purchased electricity **21,914 kWh**
- Average monthly costs **\$3,394**

City Hall- After Solar

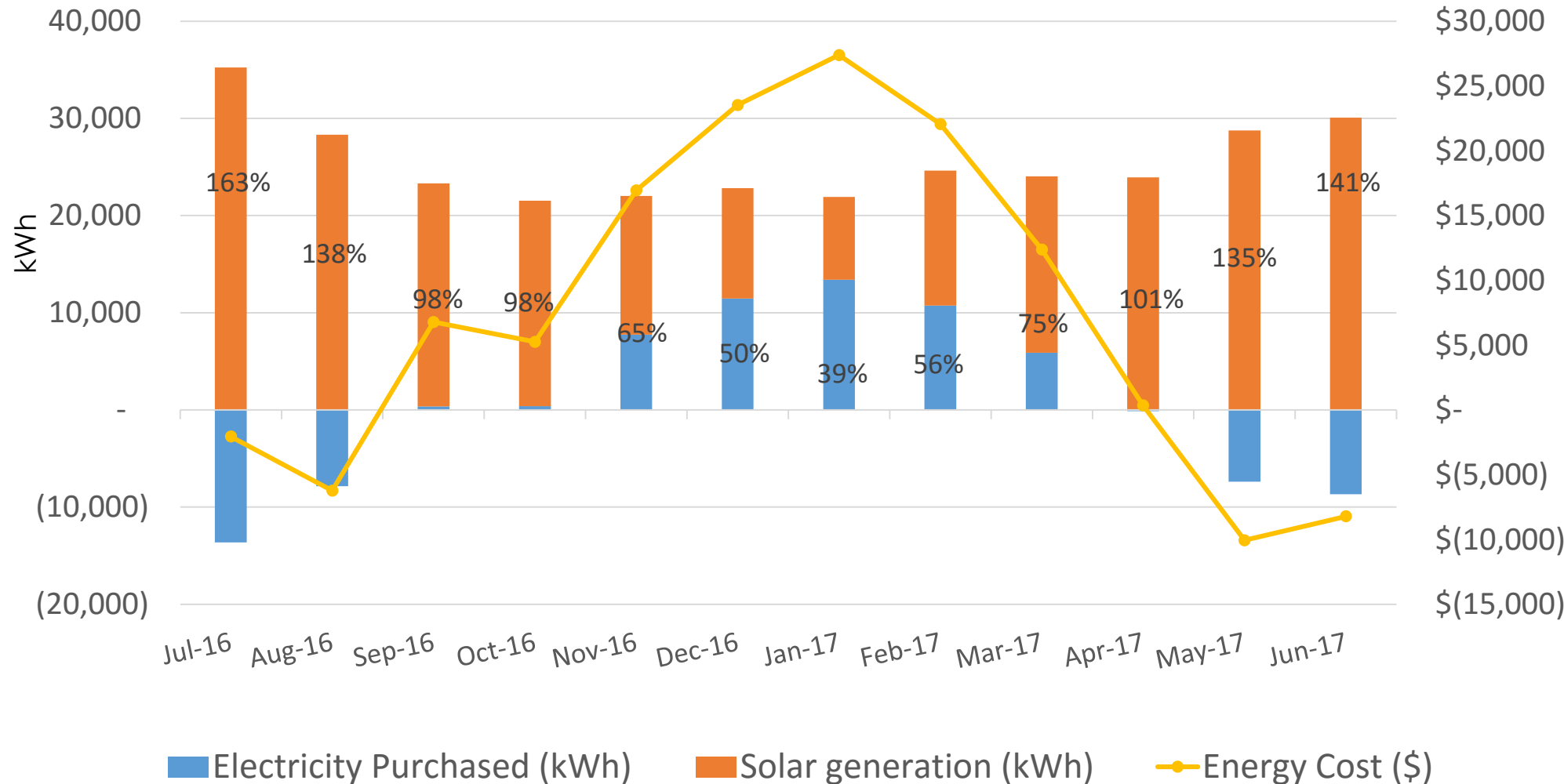
- Average monthly purchased electricity **1,026 kWh**
- Average monthly electricity costs **\$591**
- Average monthly solar generation **21,390 kWh**



City Hall

- Solar power covered **97%** of annual electricity usage.
- Annual costs are down **83%**
- Annual solar generation is **256,674 kWh-GHG equivalent of taking 40 cars off the road**

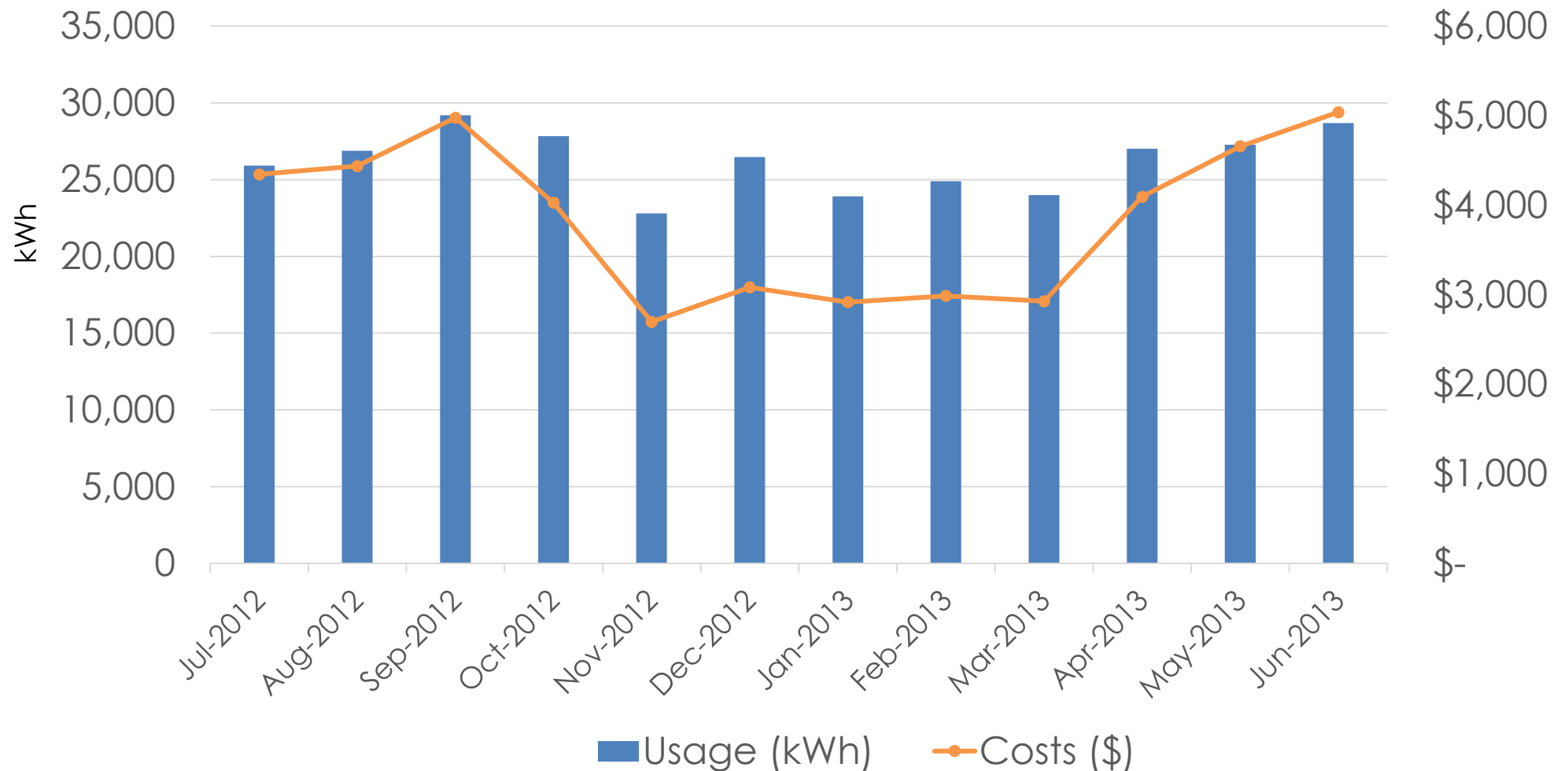
City Hall 2017-2018 Electricity Usage, Generation & Cost



Police Department- Before Solar

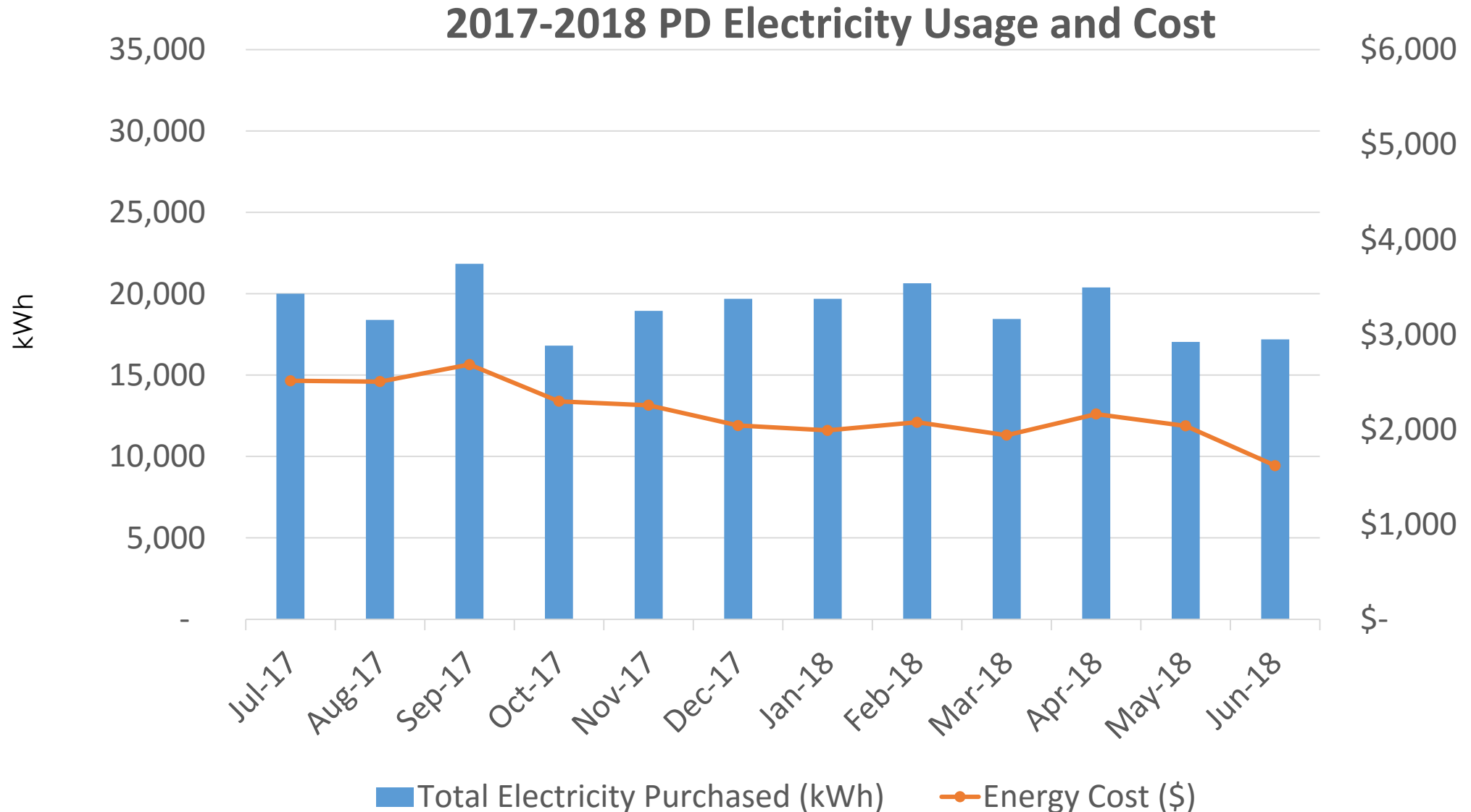
2012-2013 Police Department Electricity Usage & Costs

- Average monthly purchased electricity **26,243 kWh**
- Average monthly costs **\$3,850**



Police Department- After Solar

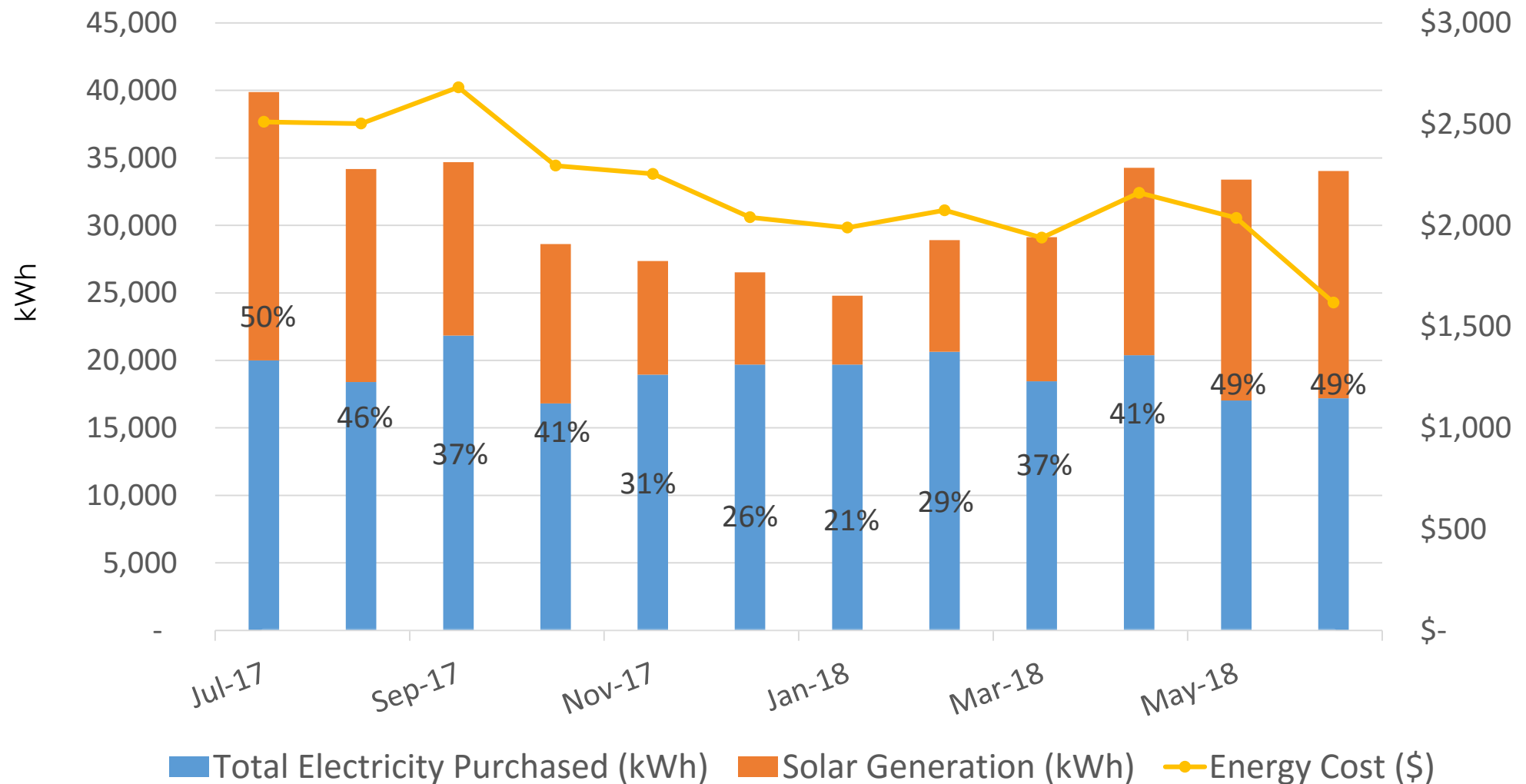
- Average Monthly Purchased Electricity **19,089 kWh**
- Average Monthly Costs **\$2,228**
- Average Monthly Solar Generation **12,225 kWh**



Police Department

- Solar power covered **39%** of annual electricity usage.
- Annual costs are down **42%**
- Annual solar generation is **146,701 kWh-GHG equivalent of taking 23 cars off the road**

2016-2017 PD Total Electricity Use, Generation and Costs

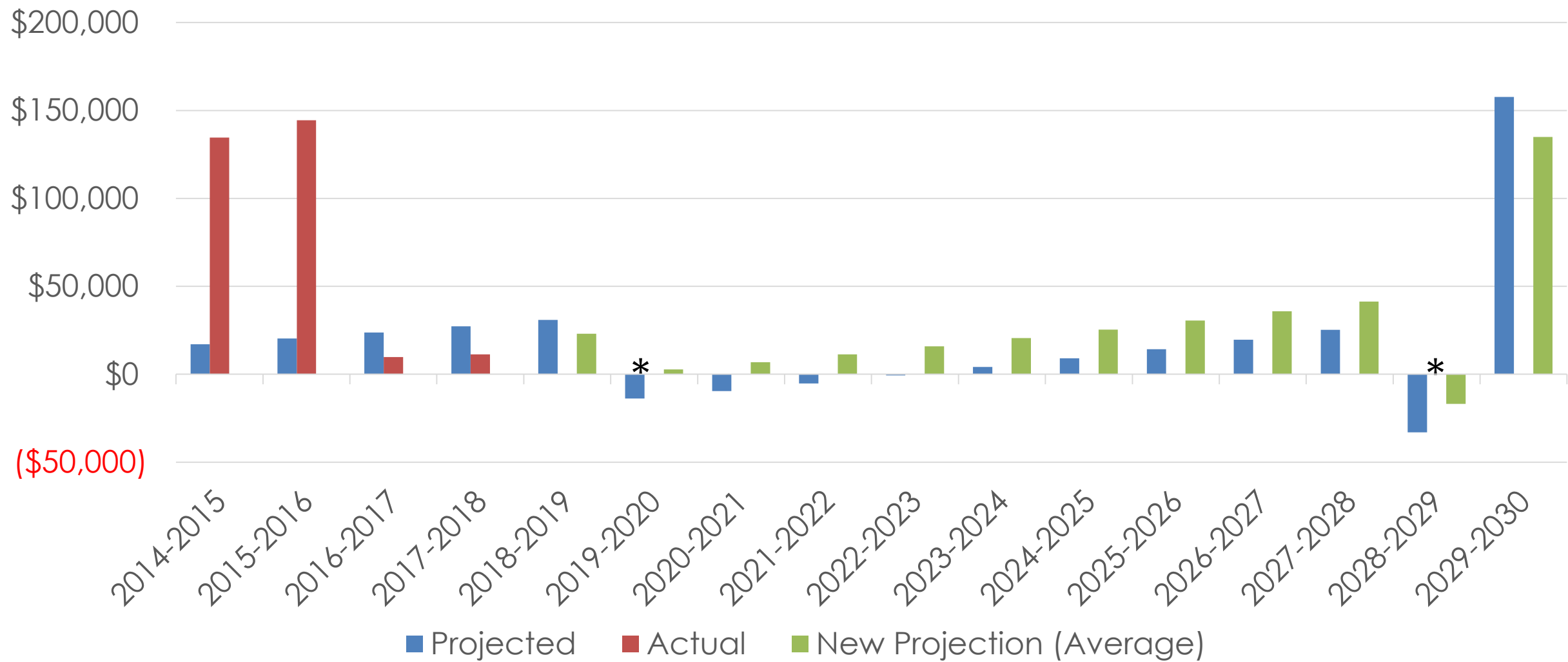


Total Project Saving and Expected Payback

	Baseline/ Projected	2014-2015	2015-2016	2016-2017	2017-2018	Baseline Comparison	Previous Year Comparison
Annual Usage (kWh)	626,872	667,114	695,421	690,018	703,498	112%	102%
Annual PV Generated (kWh)	437,244	428,340	423,167	431,050	438,395	100%	102%
Annual Savings (\$)	\$87,826	\$88,845	\$88,586	\$95,620	\$97,213	111%	102%

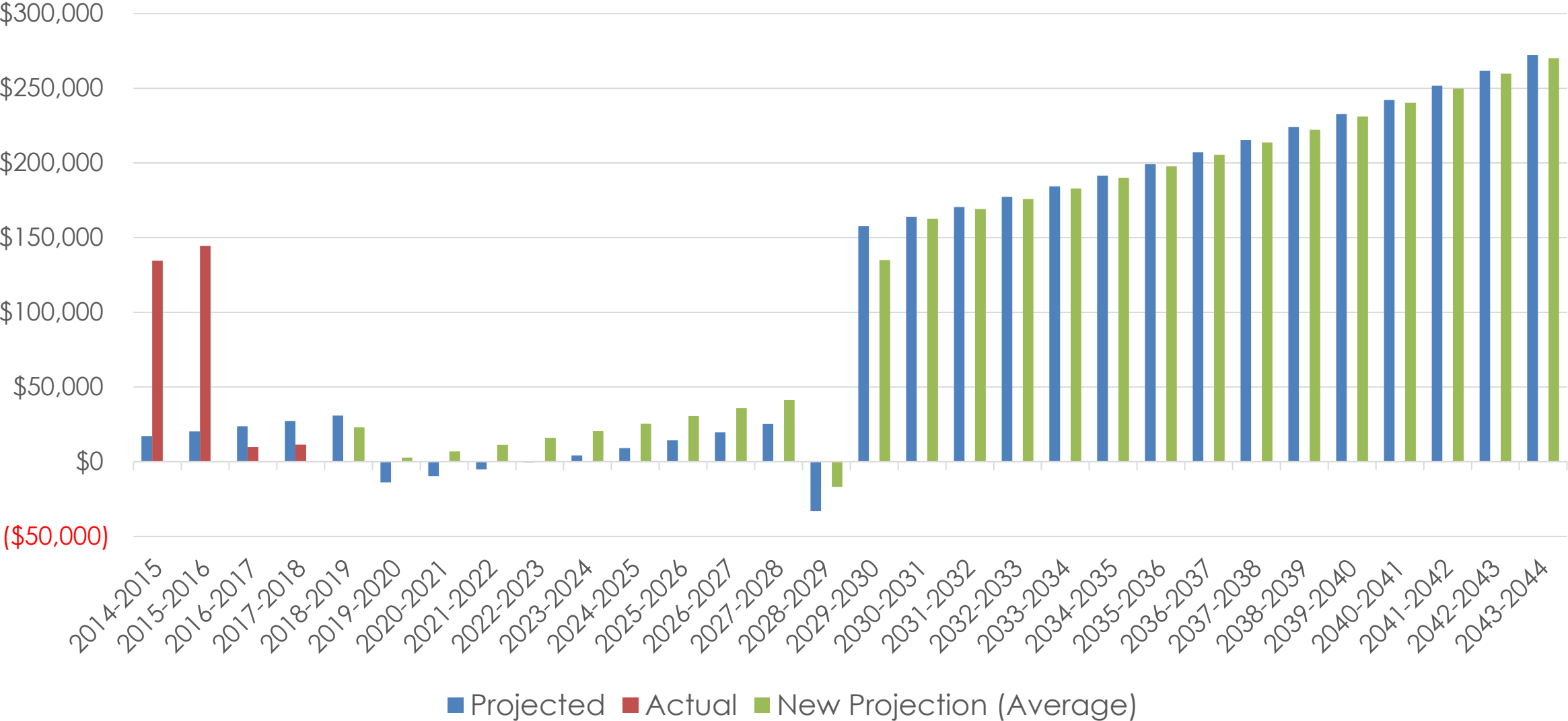
Projected Vs Actual Project Cash Flow to 2030

Projected Vs Actual Project Cash Flow



Projected Vs Actual Cash Flow Over Project Lifetime

Projected Vs Actual Project Cash Flow



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Questions?