



Performance
Services



Roselle School District 12 Energy Update

November 17, 2020





Energy Savings Project - Scope of Work

- ❑ Roselle Middle & Spring Hills Elementary
 - ❑ HVAC Renovation
 - ❑ Installed new RTU fans with variable speed drives, dual temperature cooling and economizer function
 - ❑ Replaced existing boilers with high-efficiency condensing units
 - ❑ Installed new VAV terminal units
 - ❑ LED Lighting Upgrades
 - ❑ Retrofitted interior/exterior lighting with occupancy sensors
 - ❑ Controls
 - ❑ Reduced fan and boiler runtimes
 - ❑ Eliminated summer heating





Energy Savings Project Performance

- ❑ Base Year (Pre-Project Data): November 2015 – October 2016
- ❑ Electricity Use Reduction in Year 1 (51%)

614,646 kWh

- ❑ Natural Gas Use Reduction in Year 1 (33%)

21,543 therms

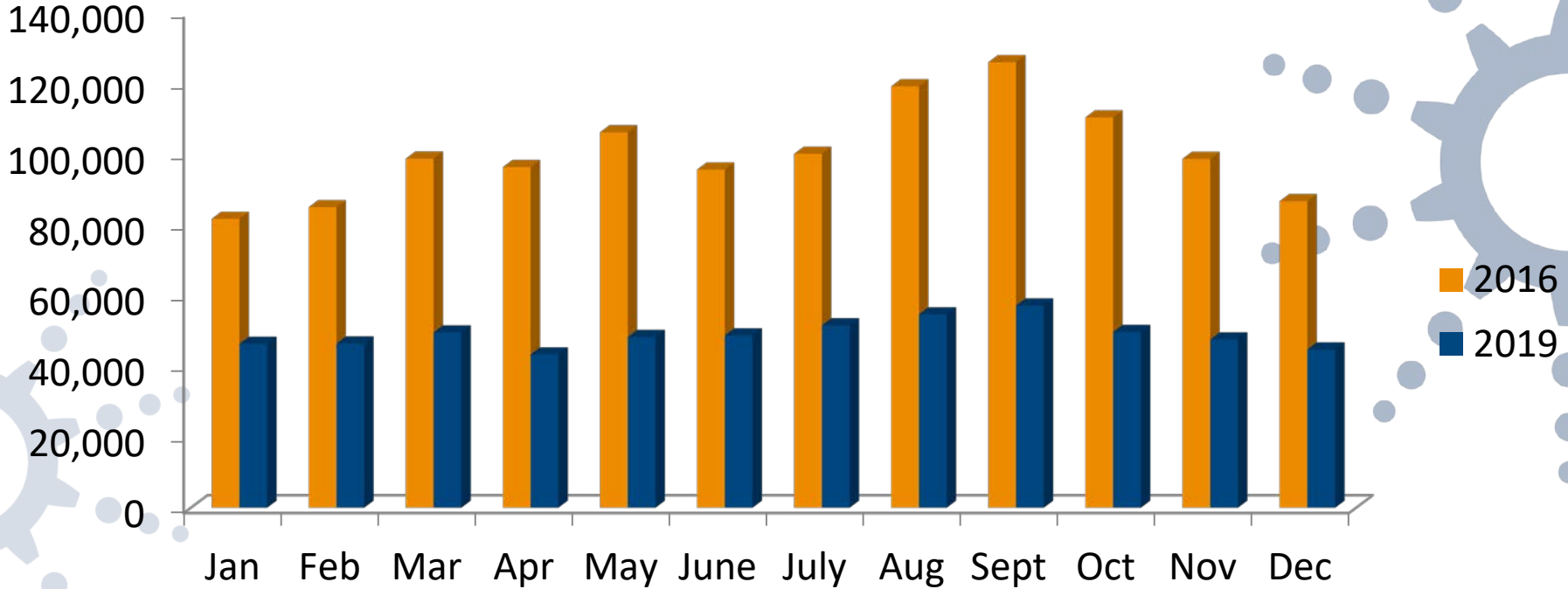
- ❑ Total Energy Cost Reduction: December 2018 – November 2019 (34%)

\$50,530





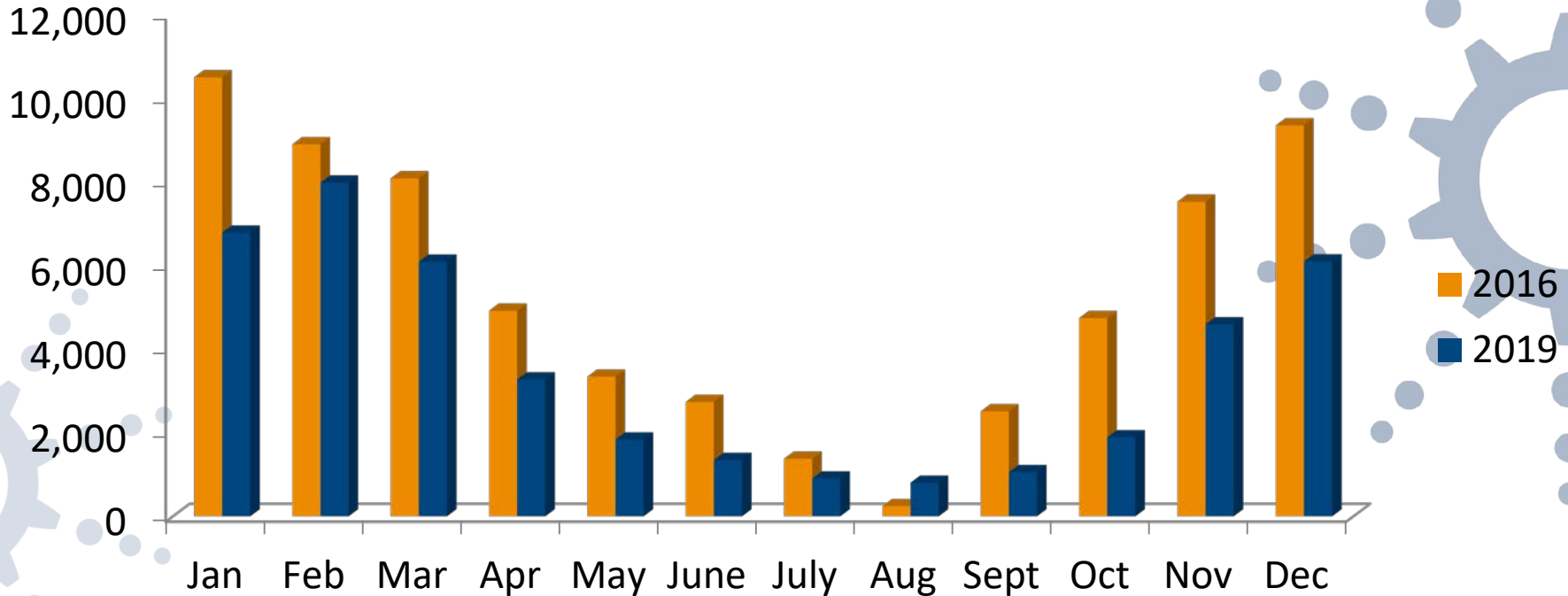
Combined Electric Usage (kWh)



Reduced electric (kWh) consumption by 51%



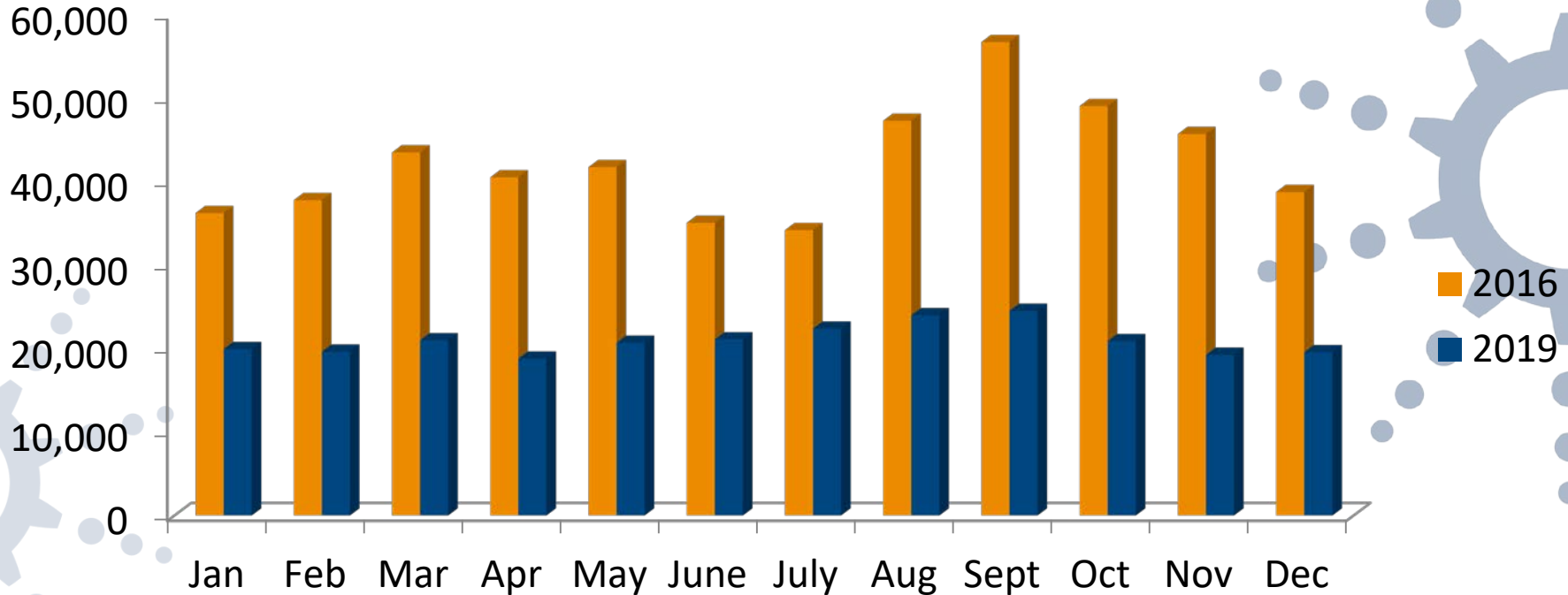
Combined Gas Usage (therms)



Reduced gas (therm) consumption by 33%



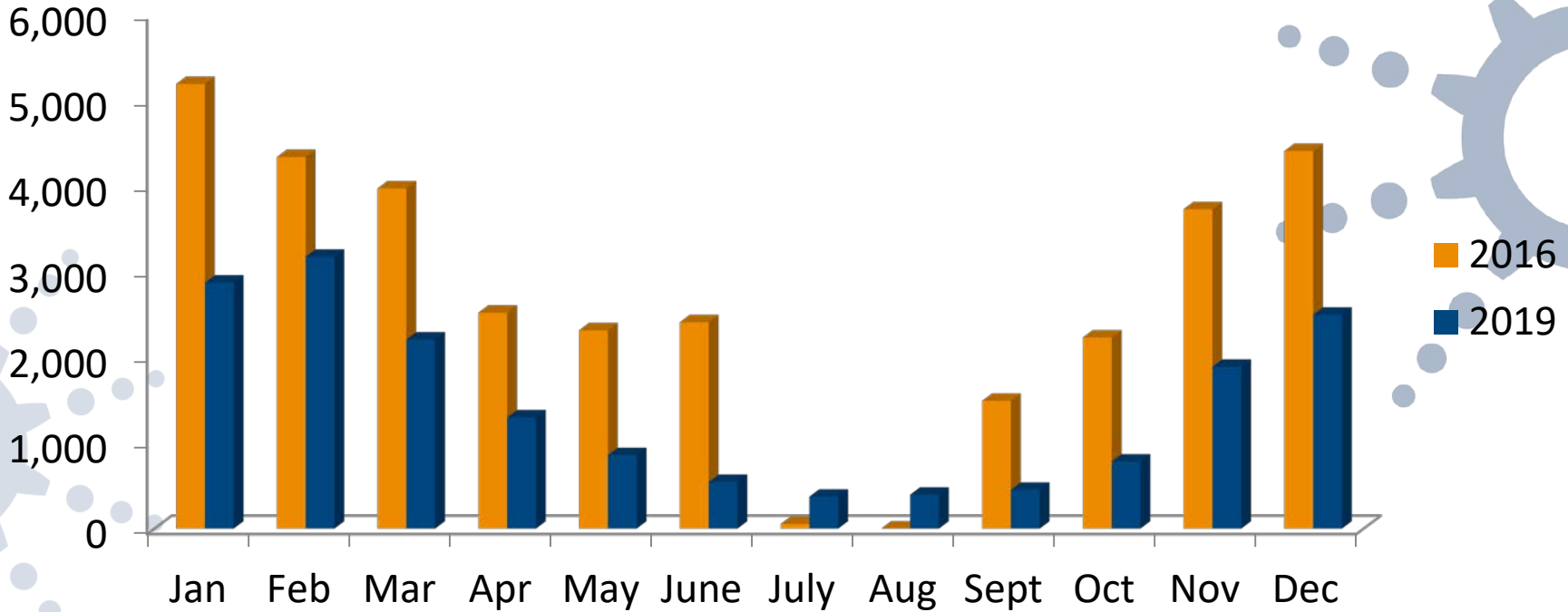
Roselle Middle School Electric Usage



Reduced electric (kWh) consumption by 50%



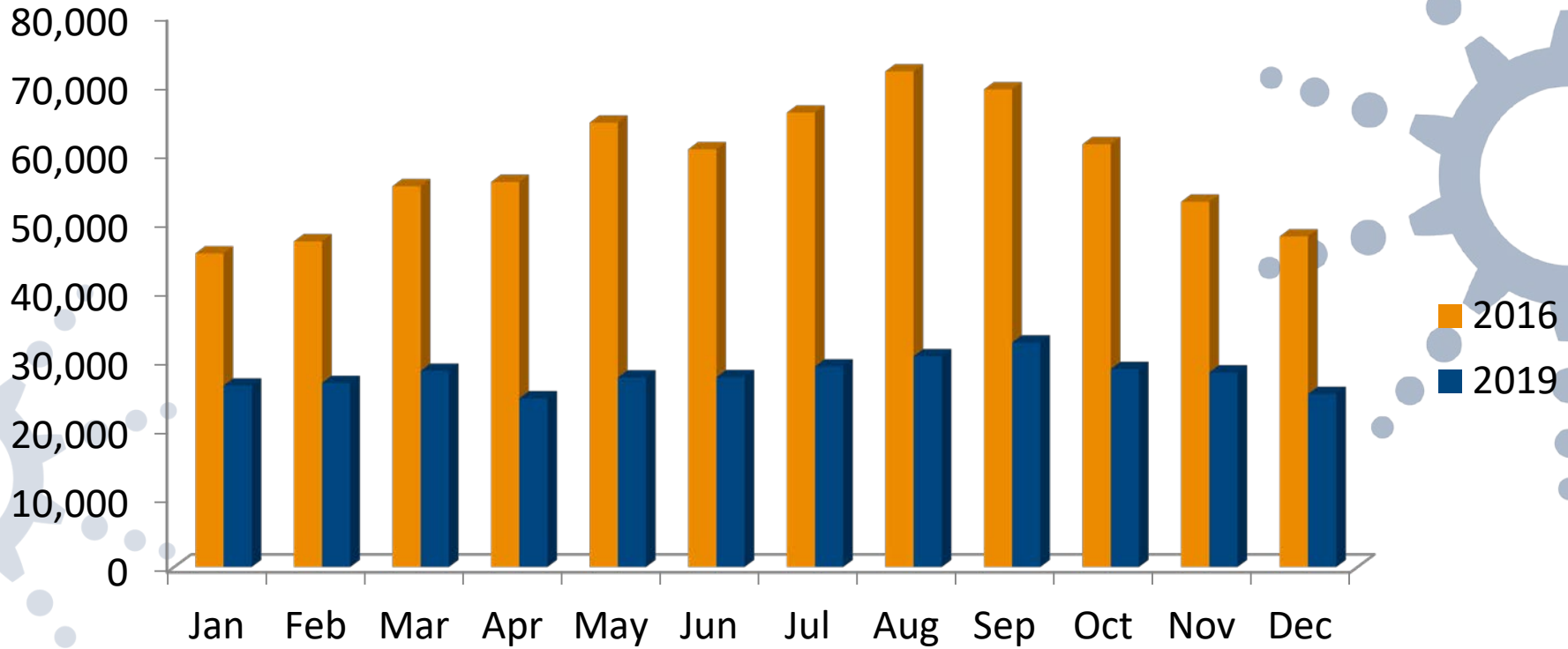
Roselle Middle School Gas Usage



Reduced gas (therm) consumption by 46%



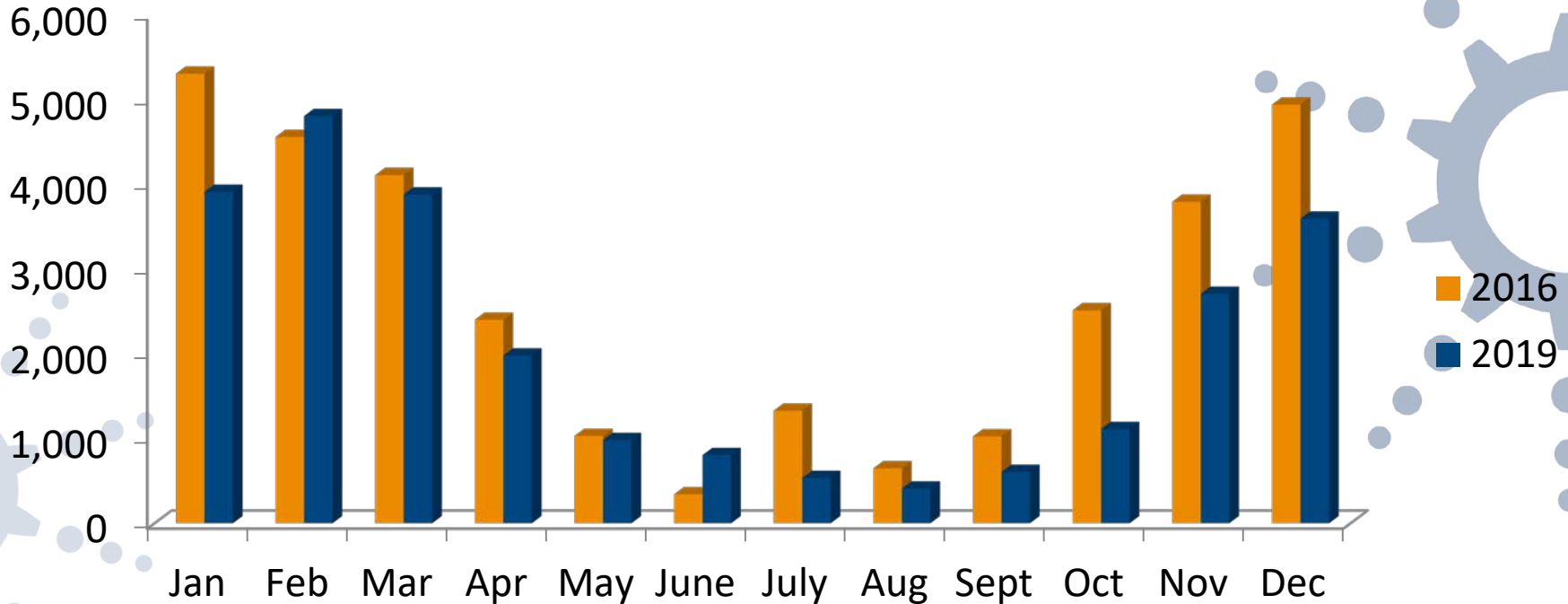
Spring Hills Elementary Electric Usage



Reduced electric (kWh) consumption by 52%



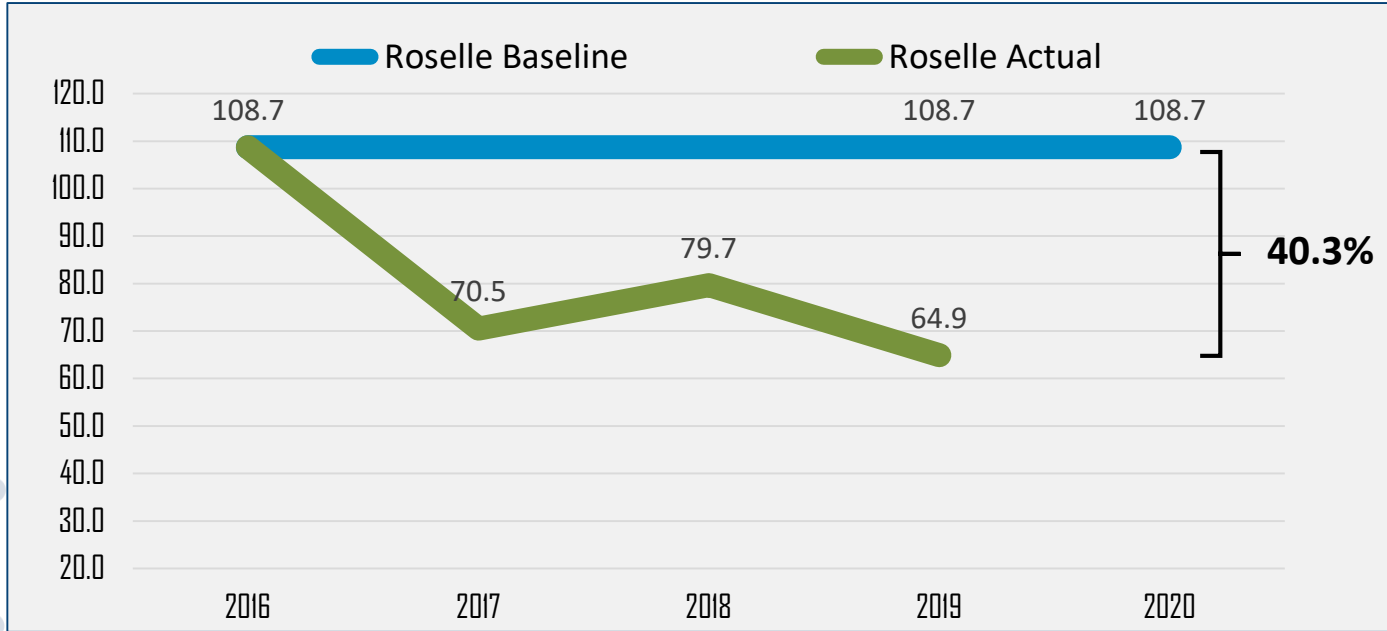
Spring Hills Elementary Gas Usage



Reduced gas (therm) consumption by 21%



Combined Energy Intensity



The Energy Use Index (EUI), referred to generally as “energy intensity,” demonstrates the volume of energy consumed per square foot at a set of facilities over the course of a year. Prior to 2018, Roselle Middle and Spring Hills Elementary scored a combined EUI of 108.7. After equipment upgrades and Four-Season Optimization, the combined EUI of these facilities is now 64.9, which is a 40.3% reduction in energy intensity.



Energy Savings Project Results

- Year 1 utility savings:
\$50,530
- 44% Greater than the Guarantee
- The year 2 report will be delivered in the first quarter of 2021

