

LED Initiative, Spring 2019.

We have been working on reducing our energy needs (and carbon footprint) as LED technology has become available. We recently replaced the ten parking lot metal halide lights with LED bulbs. This will save 93 watts per bulb, or about \$245 a year in electricity (assuming an average of four hours/day). We already had three blown out bulbs, so we needed to hire an electrician and lift anyway. Other bulbs were going to go dead soon, as the average life for the metal halide bulbs was 10 years. The LED lights should last for over 30 years! Payback is only a couple of years.

We replaced the two halogen flood lights in the courtyard with LED lights that are more than twice as bright. This will save 110 watts total per hour, or \$82 a year. They are on an average of 12 hours a day. The LED bulbs should last three years versus six months for the old halogen lights. Payback is only four months.

We replaced 36 halogen bulbs in the sanctuary with LED lights for a savings of 1,152 total watts per hour. This could be a savings of \$161 a year (3 hours/day for 5 days/week for 52 weeks). Payback is about a year.

Total wattage saved per year for these three changes: 2,738,800.

This is equivalent to saving 1.9 metric tons of carbon dioxide, or 4,734 miles driven by car, or 218 gallons of gasoline.

We are working on finding acceptable bulbs to replace the tube halogen bulbs in the sanctuary and hallway. Most current replacements are too large.