

Sustainability 2022-23



EDEN PRAIRIE SCHOOLS

Inspiring each student every day

What is Sustainability to Eden Prairie Schools?

1. Environmentally Responsible
2. Focus on Student and Staff Wellness
3. Community Friendly



- City of Eden Prairie: “Ongoing effort focusing on education and implementation of sustainable practices to protect the environment and natural resources our community enjoys.”

Solar Power

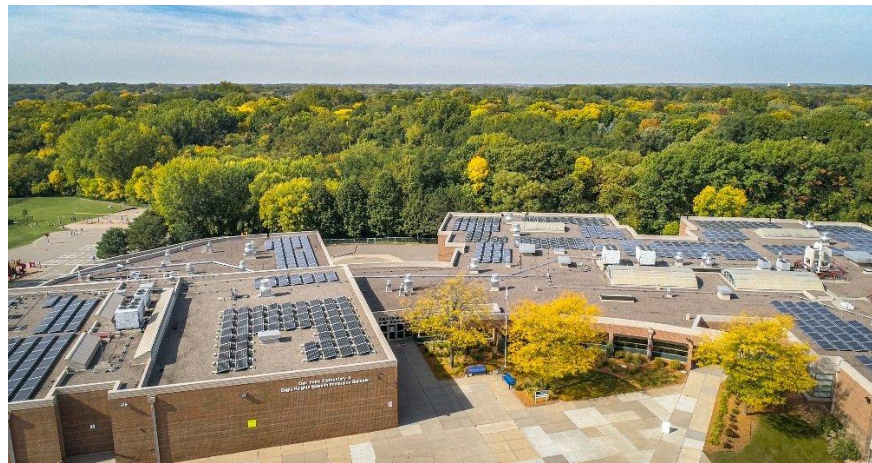
- Photovoltaic Rooftop Arrays (22 currently)
 - Installations started in 2017 (4), 2018 (10), 2019 (6), 2021 (2)
 - Design happening on 2 large array's at CMS & EPHS (Install in 2023)
 - Generating the equivalent of 19% of our electricity usage
 - \$0 capital investment on the front end, payable as panels generate energy
 - Projected \$4,300,000 in general fund savings over 25 years

- Community Solar Gardens (3 currently)
 - Subscriptions signed in 2015, install in 2017 (1), 2018 (2)
 - Generating the equivalent of 67% of our electricity usage
 - \$0 capital investment
 - Projected \$1,800,000 in general fund savings over 25 years



Solar Photos

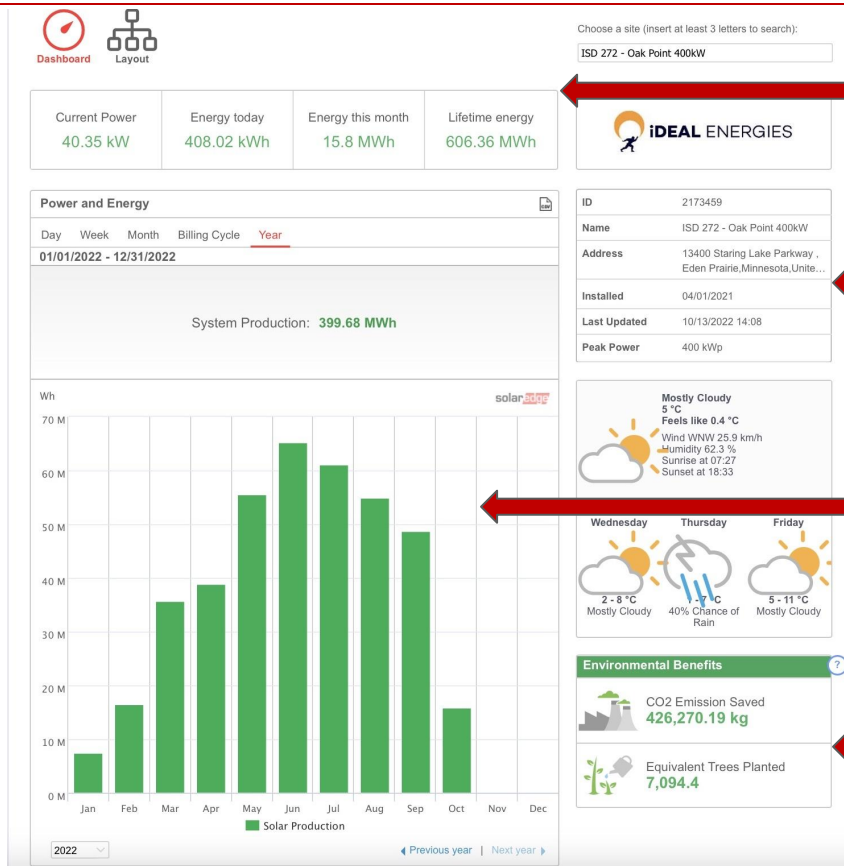
Oak Point/Eagle Heights Elementary Aerial



Community Solar Garden Example



Solar Metrics



Key Metrics

Array Installation Data

System Production by Month

Environmental Benefits

Electric Buses - Future Consideration

- Currently operate 104 diesel buses
 - Just 10 are not 'clean diesel' (Older than 2010)
 - Bus costs approximately \$110,000 to purchase plus fuel and maintenance
- Grant Opportunities
 - Applied for a Diesel Emissions Reduction Act Grant in 2021 - Denied
 - Applied for Environment Protection Agency Grant in 2022 for up to 10 buses
 - Funding up to \$250,000 per bus plus \$13,000 per charging station
 - If awarded above, will apply for Minnesota Pollution Control Agency Grant for charging stations
 - Additional funding up to \$125,000 per bus plus \$7,000 per charging station
- Electric Bus Stats
 - Range 138 miles
 - 2-3 hour charge
 - Vehicle to grid capability
- Financials
 - New EV bus is \$350,000
 - Charging Infrastructure runs between \$9,000-\$50,000 per bus



LED Lighting Upgrades

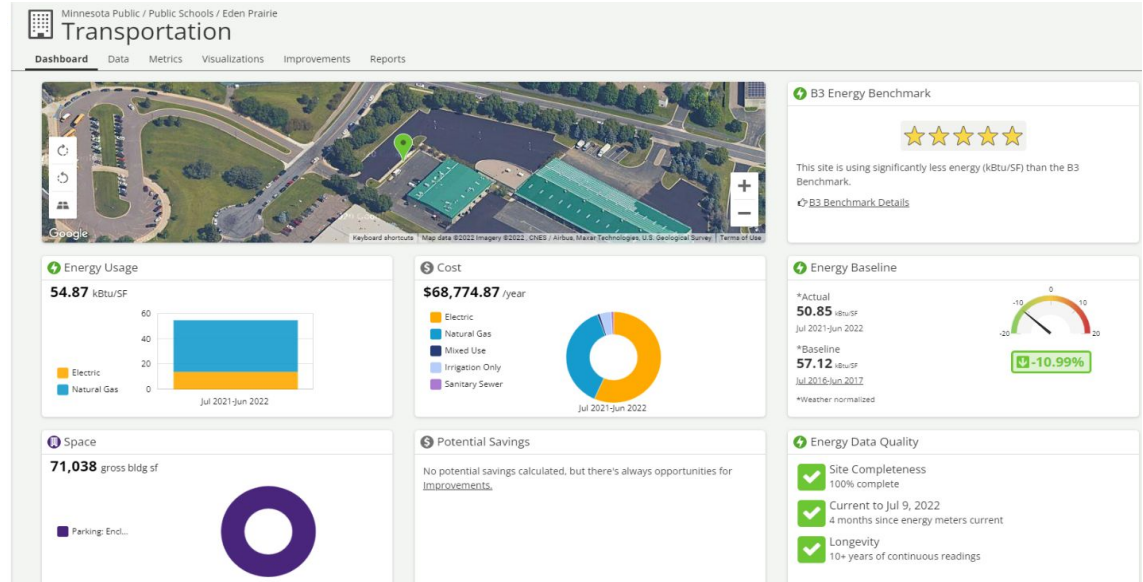
- Light Emitting Diode (LED) Lighting vs Fluorescent Lighting
 - LEDs use 50% less energy than fluorescent lighting
 - 'Burns' at a lower temperature
 - Provide vibrant illumination
 - Adding dimmable feature for light sensitivity
- All new spaces in the district are being built or remodeled with LED Lighting (i.e. CMS, ASC North Wing, OP Special Education Classrooms, etc.)
- Added occupancy sensors to many rooms and spaces
- The district has updated most exterior lighting to LED over the past 5 years
- Currently working with a vendor to create a 5 year replacement plan for all interior lighting
- Financials:
 - \$4,700,000 investment (Payable over a 10 year financing plan)
 - \$9,800,000 in savings over 20 years

Financial Efforts and Rewards

- Regular Energy Audits
 - Generate rebates - March 2022 received \$105,000
- Energy Design Rebate - CMS (Envelope, Window Glazing, Lighting, HVAC)
 - Project costs \$226,120
 - Rebate incentive check of \$116,316
 - Annual energy savings of \$73,643 (1.5 year payback)
- Grants:
 - Tree planting (\$8,940) for 82 trees
 - Chloride reduction (\$20,000) - Helped reduce winter road salt
 - Reduced Rock Salt usage by 40% over the past 5 years
 - Grounds crew is Smart Salt Certified
 - Recycling (\$4,800) to reduce disposable food ware
 - Recycling (\$12,500) to enhance food recycling process
 - Reduce food waste (\$500)

Data Tracking

- B3 Benchmarking
 - Software that provides advanced metrics for our buildings
 - Peer comparison data
 - Benchmark energy modeling



Other Sustainable Items

- 358 trees planted over the last 5 years
- 4 water retention ponds to reduce water runoff (2 OP, 2 CMS)
- Replaced gas powered grounds equipment with battery operated
- New Irrigation software to monitor and track field watering
- Updated Building Automation System to maximize heating and cooling systems
 - 74 degrees during cooling months, 68 degrees during heating months, 10 degree setback in unoccupied modes
- Updated our Fresh Air setpoints, saving \$17,000 annually
- Utilizing organic, plastic free, and recycled products in restrooms

A large, stylized graphic of a wing or feather, rendered in a lighter shade of red, positioned on the left side of the image.

**THANK
YOU**



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