



powerED Progress Report – April 2024

The Puyallup School District’s powerED Program is working to maximize efficiency and utility cost savings for energy and water through low and no-cost opportunities. This report will share utility use data from the past 24 months, which will start to show trends since recommendations have started being implemented in December of 2023. There has been significant progress modifying district HVAC schedules. With that project nearing completion, focus will begin to shift towards identifying savings opportunities during summer operations.

PROGRAM HIGHLIGHTS

Program highlights that have occurred during the months of March and April:

- McKinstry accompanied PSD HVAC Technicians and a Tacoma Public Utility Energy Engineer for an energy scan and site walk of Governor John Rogers HS on 3/27 to identify savings opportunities for the district’s SEM (Strategic Energy Management) utility rebate program with TPU. A follow up meeting with TPU Engineers took place to discuss an energy model documenting past electrical consumption trends and predictions, as well as savings goals.
- Four months into the reporting period for the Tacoma Public Utilities SEM at Rogers HS, the District is *currently* at **90%** of its annual savings goal for the 1st year off the program! This is not even factoring most of the opportunities that were documented during the site walk and energy scan and are in the process of being addressed. We will continue to update on future progress, but this is a strong start towards meeting the goal!
- HVAC schedule audits helped identify opportunities for more efficient operations. To date there have been 236 individual schedules modified, resulting in improved operational efficiency and extended equipment life.
- All Reveal platform Building Automation System (BAS) Analytical and Key Performance Indicators are fully functional and operating. These powerful tools give wider visibility of PSD’s BAS and is yielding valuable data that can identify HVAC equipment across PSD buildings that is operating outside of intended parameters.

UPCOMING AREAS OF FOCUS

- Working with PSD Operations team to identify and implement energy savings opportunities during the upcoming summer break. This will include looking at building use needs and modifying mechanical operations to maximize efficiency while still maintaining appropriate building environments.
- Continue to leverage Reveal analytical and KPI tools to identify mechanical systems that are not operating efficiently. Once opportunities are identified and documented they will be dispatched for further investigation or repair.
- Over the course of the summer, McKinstry along with PSD HVAC Technicians and the BAS controls contractor will be performing functional testing on outside air dampers. This vital component regulated the amount of outside air that is introduced into the system. Not only is its proper function crucial to air quality, but it also can have a significant impact on energy consumption during both the colder winter and hot summer temperatures, as outside air must be either heated or cooled. This effort will include both controls-based investigations and targeted on site testing for units that show possible signs of malfunction.

SAVINGS SNAPSHOT

As Energy Conservation Measures are implemented, utility data will be collected and analyzed to determine Energy Savings. Savings data requires multiple months of utility data to collect, and we expect to start sharing savings by summer of 2024.

ENERGY SAVINGS



%-TBD

SAVINGS IDENTIFIED



\$-TBD

SAVINGS IMPLEMENTED



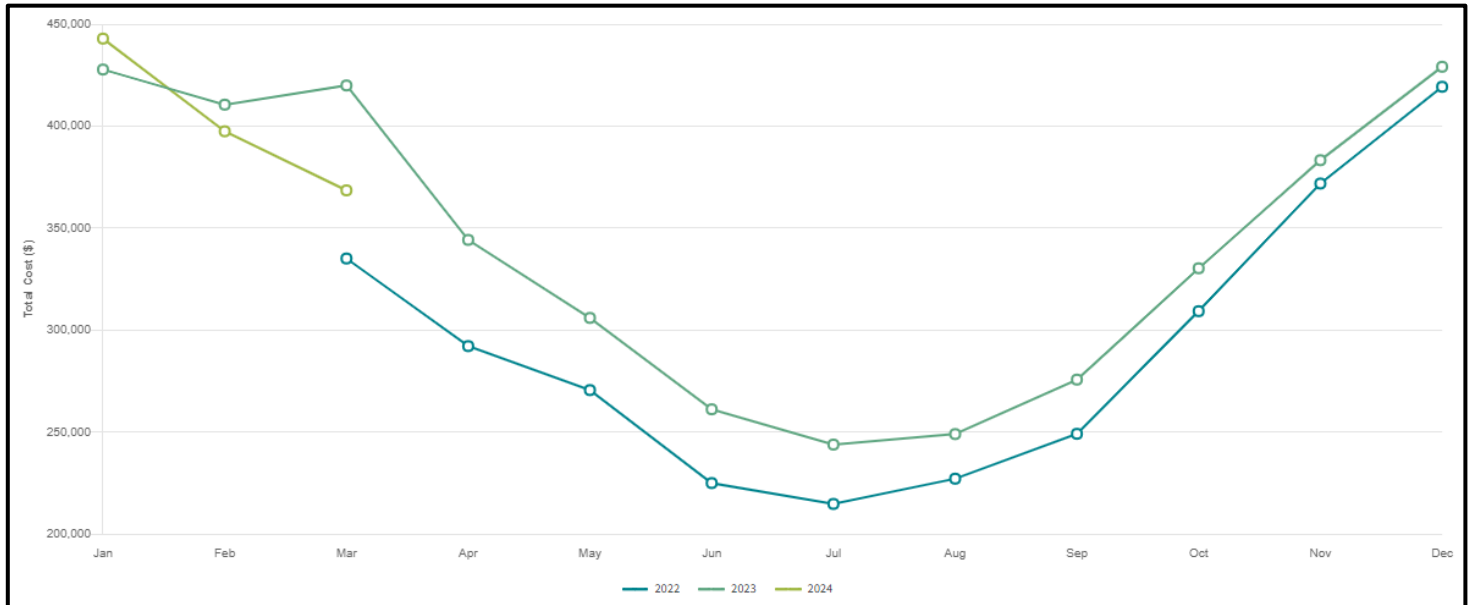
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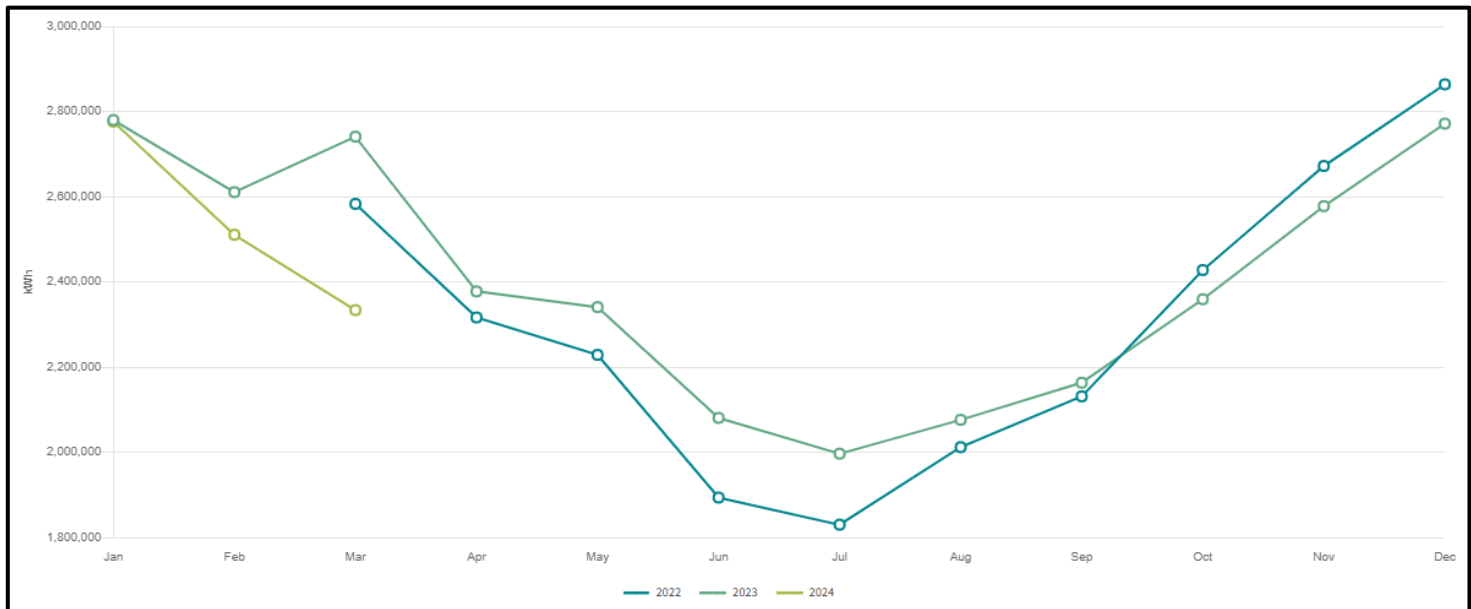
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PREVIOUS 24 MONTHS ENERGY (ELECTRIC AND NATURAL GAS) YEAR OVER YEAR TOTAL COST

The chart below depicts total cost (\$) for the previous 24 months. This chart removes total water costs, as that utility data typically lags energy by 2-3 months.



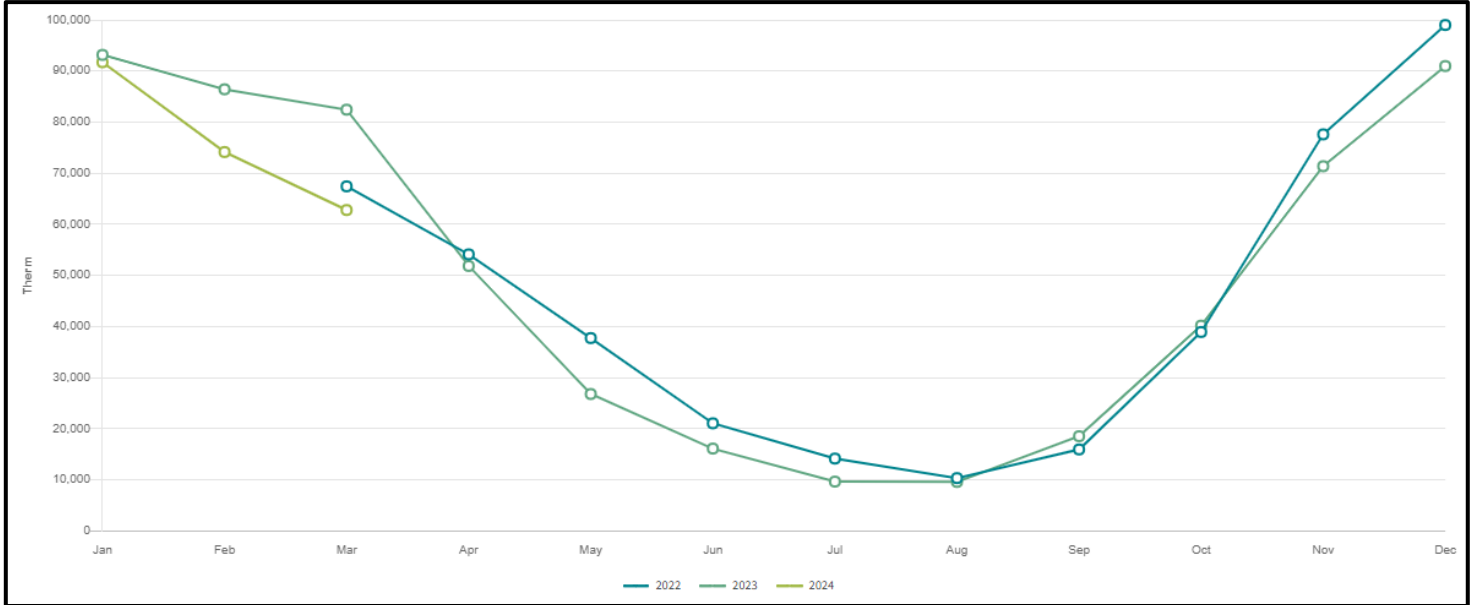
PREVIOUS 24 MONTHS ELECTRIC CONSUMPTION BY UNIT (kWh)





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PREVIOUS 24 MONTHS NATURAL GAS CONSUMPTION BY UNIT (THERMS)



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