

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 the beginning look at the district’s energy consumption trends for the 2023 – 24 school year compared to the previous year. As recommendations are identified and implemented and more utility data is collected and analyzed, savings will be able to be calculated and included in subsequent reports.

YEAR OVER YEAR UTILITY CONSUMPTION COMPARISONS

As the 2023-24 school year progresses and more energy savings opportunities are identified, and recommendations implemented we will start to focus more on the energy consumption trends for this school year compared to the previous year. While utility data does not always become available immediately after a billing cycle completes, the speed at which the Reveal platform is able to process and accurately display the data is increasing. We have been working directly with the utility providers for the district to increase the visibility and access to the data in a timelier manner, and with improved processes more timely analysis of the data will become possible. Unfortunately, it is not presently possible to have a complete picture of utility data for the previous month, due to billing cycles and how long it takes the bills to be issued, so accurate monthly total consumption data will typically lag by about two months. At the time of this report, January 2025 data is about 80% complete, and February is about 50% complete.

PROGRAM HIGHLIGHTS

Program highlights that have occurred since contract start in September 2023:

- Performing building HVAC and Lighting schedule audits to help identify opportunities for more efficient operations. To date there have been 200 individual modifications implemented resulting in improve energy efficiency and extended equipment life.
- Deep dive investigation for Ballou Junior High completed resulting in 39 individual issues identified for on-site verification and corrective action if required.
- Completed deep dive investigation at Maplewood Elementary School where programming deficiencies in HVAC equipment was discovered during temperature trend studies.
- PSD worked with McKinstry to apply for and receive a rebate incentive from PSE in the amount of **\$15,127** for a lighting upgrade at Emerald Ridge HS Football Field. In addition to the rebate, the new LED lighting will lower the amount of electricity consumed at that site for years to come.

UPCOMING AREAS OF FOCUS

- About 75% of school campus HVAC schedules have been reviewed and modified where appropriate. Program remains on track to complete review and modifications by end of April.
- Perform an energy scan and site walk of Governor John Rogers HS with Tacoma Public Utility engineers on 3/27 to identify savings opportunities for the district’s SEM (Strategic Energy Management) utility rebate program with TPU.
- Update GFA (gross floor area) data for Energy Use Intensity calculations for upcoming Clean Building Performance Standard compliance.
- Identified numerous pieces of equipment running continuously at Carson Elementary. Current investigation is underway to determine root cause and correct the issue.

SAVINGS SNAPSHOT

As Energy Conservation Measures are implemented, utility data will be collected and analyzed to determine Energy Savings. In the coming months those calculations will be able to be completed and tracked, as more ECMs are implemented the associated savings will continue to increase.

ENERGY SAVINGS



%-TBD

SAVINGS IDENTIFIED



\$-TBD

SAVINGS IMPLEMENTED



\$-TBD

OPPORTUNITIES IMPLEMENTED



200+



Puyallup School District

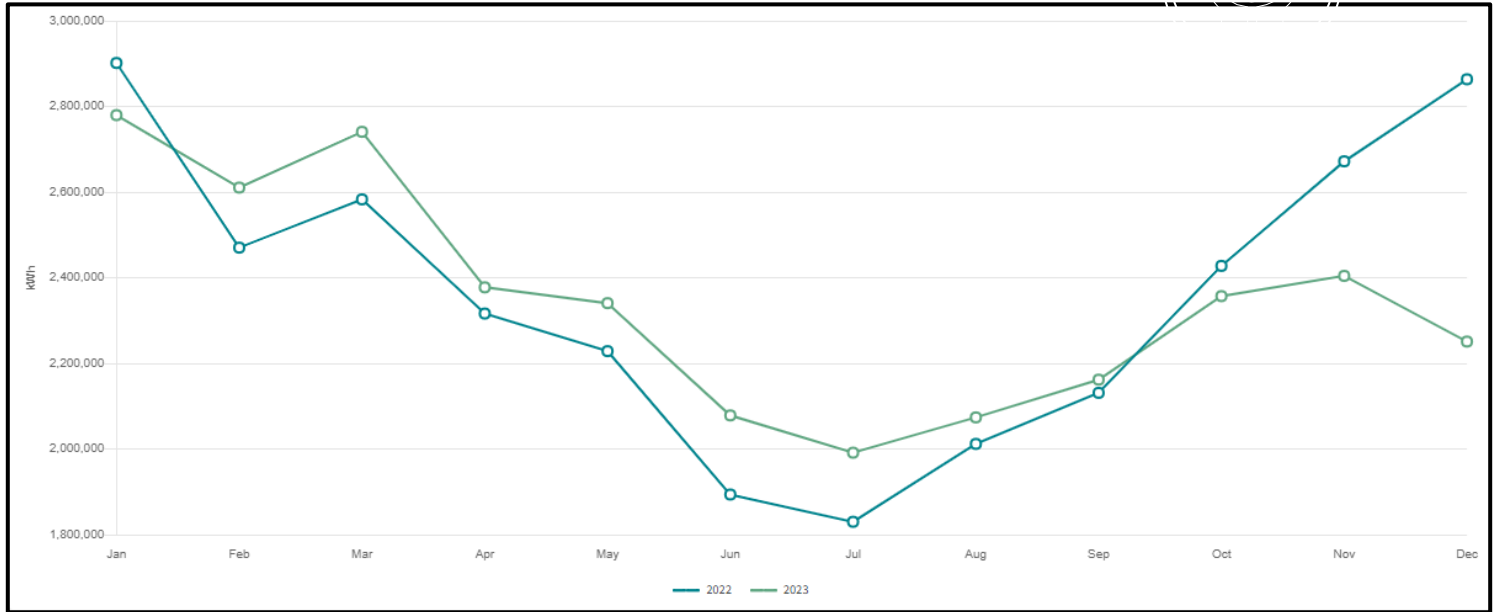
powerED Progress Report – March 2024

PUYALLUP
SCHOOL DISTRICT
A Tradition of Excellence

2022 – 2023 YEAR OVER YEAR COMPARISON ELECTRIC CONSUMPTION (BY UNIT)

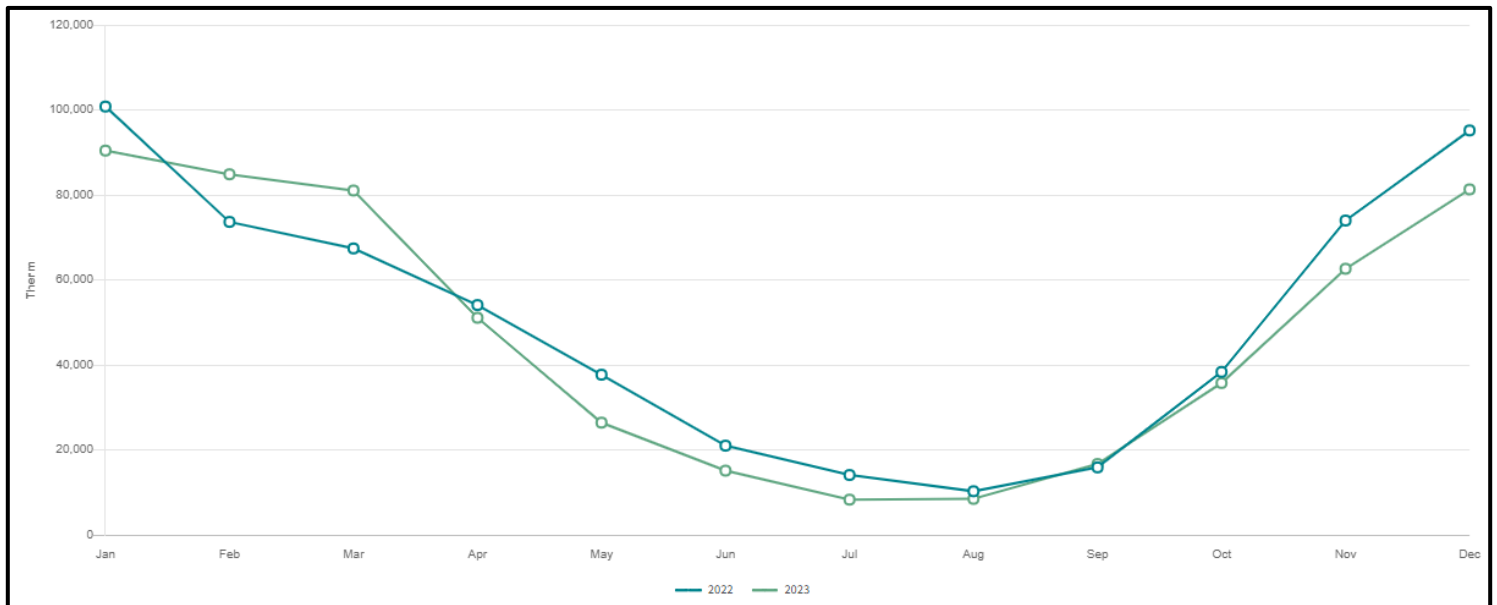
The chart below depicts total Electric consumption across the district by unit (kWh).

*Note: November '23 - December '23 is missing a small percentage of meter bill data due to utility reporting. This will be corrected when data becomes available.



2022 – 2023 YEAR OVER YEAR COMPARISON NATURAL GAS CONSUMPTION (BY UNIT)

The chart below depicts total Natural Gas consumption across the district by unit (Therms).





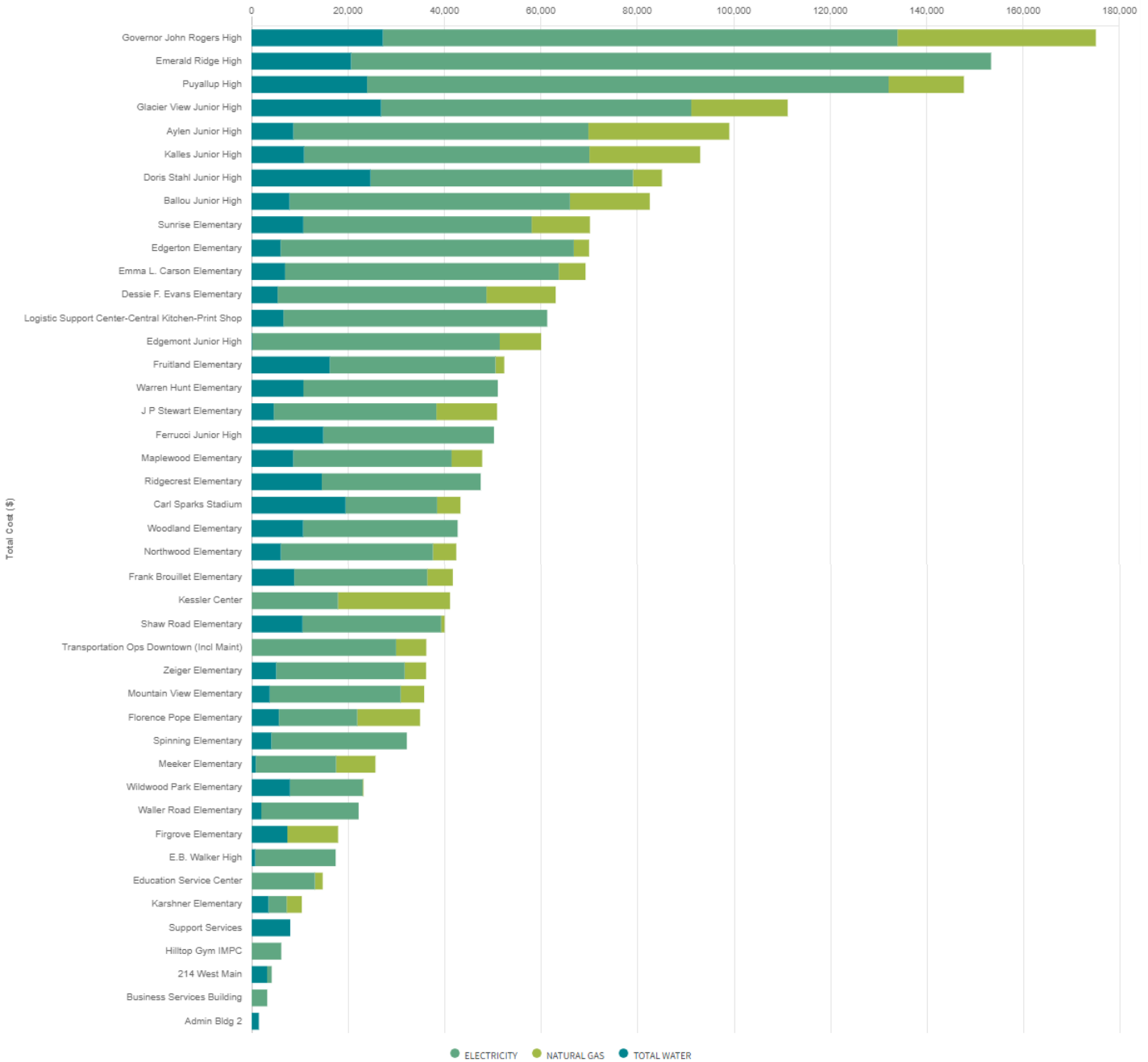
PUYALLUP
SCHOOL DISTRICT
A Tradition of Excellence

Puyallup School District

powerED Progress Report – March 2024

AUGUST 2023 – JANUARY 2024 UTILITY COST BY SITE

The below graph shows a site-by-site breakdown of utility costs for the period of August 2022 through July 2023 ranked by total cost, high to low. Utility costs show Natural Gas, Electricity, and Water (combined Domestic, Irrigation, Sewer)





powerED Progress Report – March 2024

TOTAL COST SUMMARY FOR ALL SITES – SCHOOL YEAR 2023-24 COMPARED TO PREVIOUS YEAR’S SAME PERIOD

The graph below shows total cost summary for all sites across the district from August 1st, 2023, through January 2024. This period is being compared to the exact same period the year prior (seen in the bottom graph). Current data shows the total cost for all utilities for that period is about 4% lower than the year previous. We expect to see this savings percentage increase as more utility becomes available for the months that occurred after numerous schedule modifications were performed and opportunities implemented.

August 1st, 2023 – January 31st, 2024

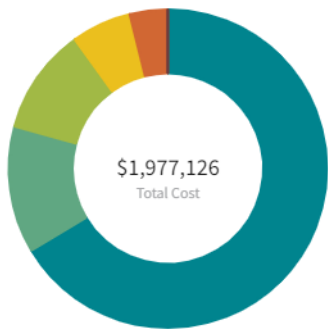
UTILITIES COST SUMMARY



Electricity	\$1,328,648
Natural Gas	\$229,407
Domestic Water	\$172,216
Water/Sewer	\$97,251
Irrigation Water	\$40,085
Sewer Water	\$34,086

August 1st, 2022 – January 31st, 2023

UTILITIES COST SUMMARY



Electricity	\$1,313,077
Natural Gas	\$254,425
Domestic Water	\$213,020
Water/Sewer	\$120,288
Irrigation Water	\$75,526
Sewer Water	\$790



PUYALLUP
SCHOOL DISTRICT
A Tradition of Excellence

Puyallup School District

powerED Progress Report – March 2024

PROGRAM CONTACTS:

Jacob Brochhagen

Project Lead, powerED

JacobB@mckinstry.com

206.658.8609

Joe Firrantello, PhD, PE

Senior Building Energy Engineer

JosephF@mckinstry.com

206.785.9568

Brady Martin

Director of Capital Projects

MartiBL@puyallupsd.org

253.435.6613

Phillip Anderson

Maintenance Director

AndersPJ@puyallupsd.org

253.841.8777

