



powerED Progress Report – May 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 as it becomes available. With the HVAC schedule modification project at completion, focus will begin to shift towards identifying savings opportunities during summer operations.

PROGRAM HIGHLIGHTS

Program highlights that have occurred during the month of May:

- During the month of May, McKinstry identified over 40 separate pieces of equipment that were showing various faults, many of them causing excessive runtime (more than 16 hours/day). Nearly all these faults were identified using Reveal Analytics. This powerful tool can flag issues for further investigation based on predetermined parameters, monitoring more than 46,000 data points associated with 3,400+ pieces of individual equipment. Identified faults have been submitted to the PSD Facilities team and are being addressed with the help of the JCI controls vendor. As Reveal Analytics parameters are refined, more faults will continue to be identified.
- Though it is still too early to attribute exact savings data to McKinstry initiated efficiency measures, the district is moving in the right direction. Based on utility provider data, the district has seen average daily electricity consumption **decrease by about 3.5%** during the period of May 2023 – April 2024, compared to that period the year before. During that same period, daily natural gas consumption has **decreased by 15.5%**! These results are weather normalized, removing weather as a variable.
- McKinstry and the PSD Operations team solidified plans to place portables across the district into an unoccupied mode during the heart of summer break. This will lower the electrical consumption across all sites with portable classrooms.
- McKinstry continues to assist PSD in identifying possible utility provider rebates for equipment upgrades and efficiency improvements. This ongoing effort can take the form of individual rebates for upgraded pieces of equipment or target based incentives like Puget Sound Energy’s CSEM (Commercial Strategic Energy Management) and a similar program that PSD is enrolled in with Tacoma Public Utilities.

UPCOMING AREAS OF FOCUS

- Buildings with no community use or district programs present over the course of the summer will undergo controls-based modifications to decrease electrical demand by lowering the volume of air that requires conditioning by hydronic chiller systems. This effort will help increase the efficiency of the individual sites while still maintaining a comfortable environment for staff that will be working on site during the summer months.
- Continue to leverage Reveal Analytical and KPI tools to identify mechanical systems that are not operating efficiently, with an emphasis on mechanical cooling systems during the warmer months. This will represent the first significant opportunity to test some of the analytical tools that are designed specifically to identify faults associated with the cooling systems.
- Over the course of the summer, McKinstry will be on site at multiple sites to assist in point-to-point testing for equipment that is identified as having performance issues. General site walks will also be taking place where needed to identify other efficiency measures.

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



\$-TBD



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