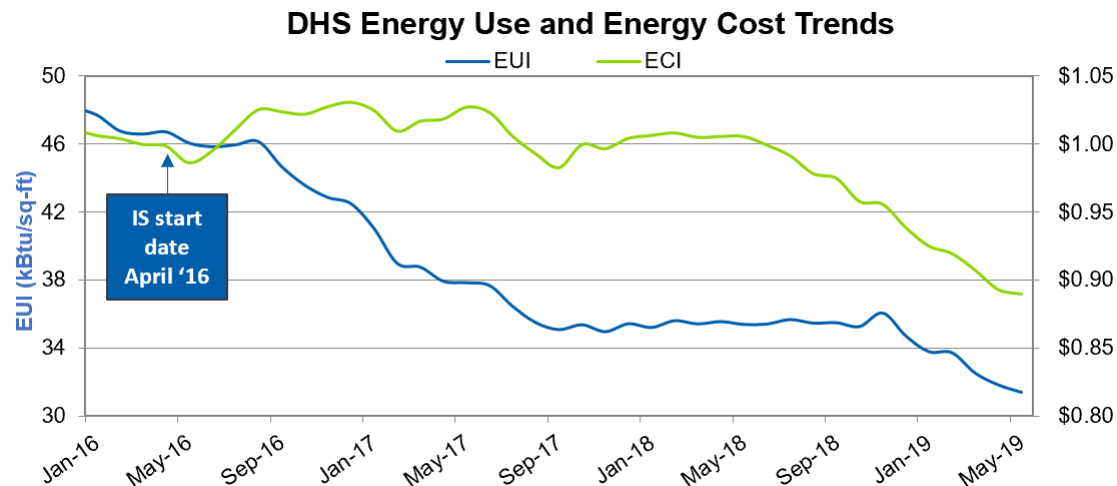


Savings To Date for Intelligent Services (“IS”) at Danville High School



Total Contract Review:

Energy savings of

\$50,954

Operational savings of

\$10,400

Energy Use has reduced

53.3%

Energy Cost has reduced

13.6%

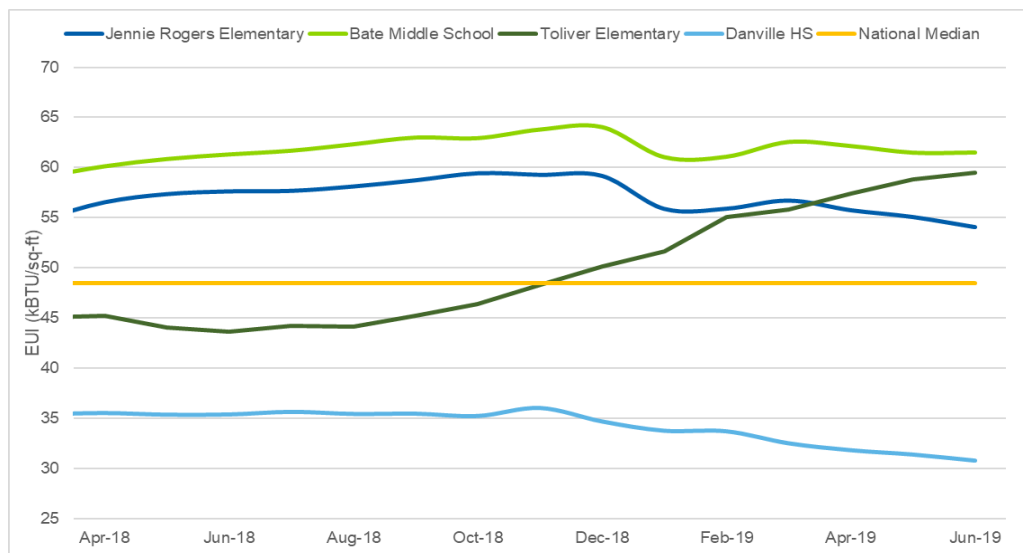
Last Contract Year Review: (April 2018-19)

- Cumulative energy cost avoidance equal to **\$29,837**
- Energy use has decreased **12.7%** and energy cost has decreased **13.05%**
- Technical Support Helpdesk has been utilized 24 times - **\$4,160**
- Demand Limiting is becoming more valuable as demand rates have increased by more than 25%

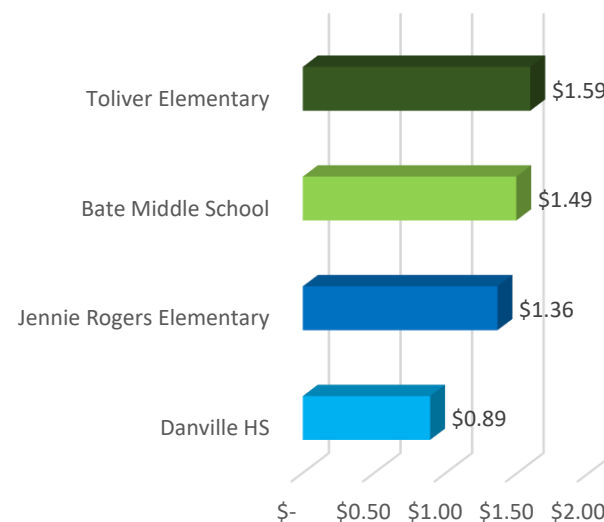
Why Renew and Expand the Intelligent Services Program

- The current Intelligent Services program has been solely focused on Danville HS and has resulted in **savings over \$60,000**. In regard to energy usage cost and the cost of building operations, it is now one of the best performing high schools in Kentucky.
- Toliver Elementary currently uses close to two times the amount of energy per square foot and approaching twice the energy cost per square foot to operate in comparison to the high school. We're confident that continuing the Intelligent Services program to sustain Danville HS' performance and adding Toliver to the program will result in **annual energy savings in excess of the cost of the service itself**.
- Danville Schools had previously financed live electric metering for the high school to enable automatic electrical demand limiting. The metering costs were paid off in 2019 so the annual cost for services has dropped. Other options would include installing live electric metering for Toliver Elementary. By spreading the metering costs over time (as the district previously did for the high school), it allows the school district to have a better annual cashflow rather than having a large lump sum for the meter integration.
- The Intelligent Services program is not just about energy savings. Danville Independent Schools' facility team has used the Intelligent Services Helpdesk over 24 times in the last year alone which **resulted in over \$4,000 of avoided maintenance fees**.

Energy Usage per FT² ("EUI")



Energy Cost Per FT² ("ECI")



Danville Independent Schools Intelligent Services and M&V Options

Option #1

- Intelligent Services
 - (2) Consultations/year
 - Building Performance analysis for the High School and Toliver
 - Helpdesk for the High School and Toliver
 - Utility analysis and reporting for all schools
- Annual Measurement & Verification for PACT project (M&V)
 - High School only

Year 1 Price: \$11,800

Option #2

- Intelligent Services
 - (2) Consultations/year
 - Building Performance analysis for the High School and Toliver
 - Helpdesk for the High School and Toliver
 - Utility analysis and reporting for all schools
 - Installation of live electric metering at Toliver
- Annual Measurement & Verification for PACT project (M&V)
 - High School only

Annual Price: \$14,800
(3 Year Term)

Option #3

- Intelligent Services
 - (4) Consultations/year
 - Building Performance analysis for the High School and Toliver
 - Helpdesk for the High School and Toliver
 - Utility analysis and reporting for all schools
 - Installation of live electric metering at Toliver
- Annual Measurement & Verification for PACT project (M&V)
 - High School only

Annual Price: \$19,800
(3 Year Term)

Note: Options #2 and #3 include integration of the electric meter of Toliver Elementary into the existing Trane building automation system for live monitoring. These costs are spread over a three year term to help the school balance costs vs. savings.

Historical Spend vs. Savings

Leading up to 2016, Harshaw Trane was performing annual measurement and verification (“M&V”) services as a requirement for the guaranteed savings for the Performance Contract (“PACT”) project. That project wrapped up in 2007 with an M&V period running from 2007-2026.

In 2016, Harshaw Trane and Danville Independent Schools partnered on an Intelligent Services agreement that cost \$13,966 per year for three years for just the high school. Because the Intelligent Services program enabled remote data collection and cloud hosted analytics tools, combined with trips to the school district by an Intelligent Services optimization engineer, Harshaw Trane’s internal M&V costs went down. Harshaw Trane and Danville Independent Schools agreed to use the M&V cost savings to fund the installation of two electric meters at the high school to allow for real-time energy monitoring and electrical demand limiting which have resulted in additional savings at the high school.

The net spend for Intelligent Services has been \$41,838 over that three year period. The total operational and energy savings is \$61,354 over that same time period. Considering the Intelligent Services program costs, the total net savings equates to \$19,516.

Going Forward with a New Scope

In early 2019, the Intelligent Services agreement for the high school expired. Harshaw Trane is proposing to extend this program to help Danville Independent Schools sustain the savings garnered at the high school so they don’t slip away, but to also expand the program to include other schools.

It is worth noting that there are also changes that will take place to the M&V program. Because the school district has recently renovated schools that were in the original Trane PACT agreement, the guarantee now only applies to the high school. Harshaw Trane is working on a formal revision to the M&V agreement which would show these scope changes and result in a cost reduction. The current annual M&V price would have been \$11,302 but with these changes, the price will now drop to \$4,500 without the Intelligent Services program in place, or \$1,800 if the district continues with an Intelligent Services program. Again, the discount from \$4,500 to \$1,800 is due to the Intelligent Services data collection, analytics tools and engineering trips to the school district for regularly scheduled consultations that dramatically reduces Harshaw Trane’s M&V costs.