



case study

Chester County Intermediate Unit

Utility Billing Analysis Bears Immediate Cost Savings

Project Description/Services:

- Preliminary building monitoring and operational review, including data logging and reporting of HVAC operations.
- In-depth assessment of utility rate charges using detailed software models of PECO rate tariffs.



Outcomes:

- The initial consumption analysis revealed that metered demand levels did not match billed demand on one monthly invoice. A follow-up rate charge analysis by Practical Energy Solutions (using rate tariff software) identified a \$7,500 overcharge by PECO.
- During building monitoring and logging, Practical Energy Solutions identified a number of issues:
 - *Inefficient HVAC schedule*: The morning cool-down in the summer (after evening setbacks to 80°) was set to begin 2 hours before occupancy, to allow time to reach the occupied setpoint temperature. Data logging showed that this cool-down actually occurred much more rapidly, in 15 to 30 minutes depending on the zone, allowing us to adjust the schedule and reduce HVAC use.
 - *Duct leakage*: This rehabbed manufacturing site has a true ceiling height of 13 feet. We found that the space above the drop ceiling was kept significantly cooler than the occupied space—an indication of significant duct leakage. A program of thorough duct analysis and sealing is recommended.

Project Stats:

- Services Provided from April 2008 – July 2008
- Year One Savings: \$15,000 (includes savings from utility bill analysis)

Contact:

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