



Clay County
District Schools
Clayton, North Carolina

Clay County District Schools

Superintendent David Broskie



How does Cenergistic work within the District

- Our first contact with school staff concerning comfort issues and light scheduling requests via in-person visits, email and phone
- Frequent in-person and online building audits during and after hours, validate Temp. setting throughout the campuses
- Provide real-time assessment of humidity and temperature concerns using company data loggers (HOBOS)
- Use of proprietary software (*Green-X* and EnergyCap) to compile and organize a database that shows daily, weekly, and monthly energy usage
- Have established relationships with utility providers (water and Electricity) in order to facilitate the immediate course of action for suspected over usages'
- Have been incorporated into Building Automation work center since 2018, working in conjunction with BAS coordinator to foster best practices



3 Options

Cenergistic

Renewal Cost - \$324,000 / year

- New contract cost = \$27,700 / mo.
(50% discount on current average monthly rate) = \$324K / Year
- 36-month extension of current agreement effective July 1, 2021
- Program to date (Jan 2016 – April 2021) Cost Avoidance = \$6,527,238 / 14.8%
- If unhappy with results we can cancel contract w/90 day notice at any time

Develop organic capability

Yearly cost \$297,200.00

Monthly cost: \$24,767.00

- 3 Coordinator (II) step 5 w/salary (\$85K), comp and vehicles \$891,600.00 (3 yrs)
- Need to develop Job Descriptions, and allocations for Board Approval
- Salary schedule includes off hours for energy audits.

No Monitored Energy Program

- Move forward with lessons learned with Cenergistic
- Initial **SAVINGS \$997,200.00**
- Burden of energy managing falls to building automation coordinator and senior staff
- Re-apply district standards for temperature settings
- No software to manage monthly energy costs



Option #1

Cenergistic

Renewal Cost - \$324,000 / year

- New contract cost = \$27,700 / mo. (50% discount on current average monthly rate) = \$324K / Year
- 36-month extension of current agreement effective July 1, 2021
- Projected net savings in performance years 6 thru 8 of \$3,284,654.00
- Have access to Proprietary Software Green-X
- Team works off-hours for auditing school campus energy usage
- If unhappy with results we can cancel contract w/90 day notice at any time



Option #2 Develop Organic Capability

- 3 Coordinator (II) step 5 w/salary (\$85K), comp and vehicles **\$891,600.00 (3 yrs)**
need to develop Job Descriptions, and allocations. salary schedule includes off hours for energy audits. Monthly cost approximately; **\$24,767.00** with **yearly cost \$297,200.00**
- The total cost breakdown includes: Three vehicles \$69,000.00 (divide cost over 3yrs), Weekly gas (full tank) @ \$2.40 a gal. for 20 gal. per vehicle approximately \$144.00 dollars weekly for three vehicles plus \$300 for yearly scheduled maintenance.

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|---|------------------|
| Yearly cost salary (3 Coordinator (II)): | \$255,000 |
| Yearly vehicle cost (3 vehicles, 3 yrs): | \$23,000 |
| Yearly vehicle gas/maint. cost (52 x \$150.00): | \$7,800 |
| Cost of laptop computers & Energy Cap software | <u>\$11,400</u> |
| Total yearly cost: | \$297,200 |
| Total 3 yr cost: | \$891,600 |
| Monthly cost: | \$24,767 |

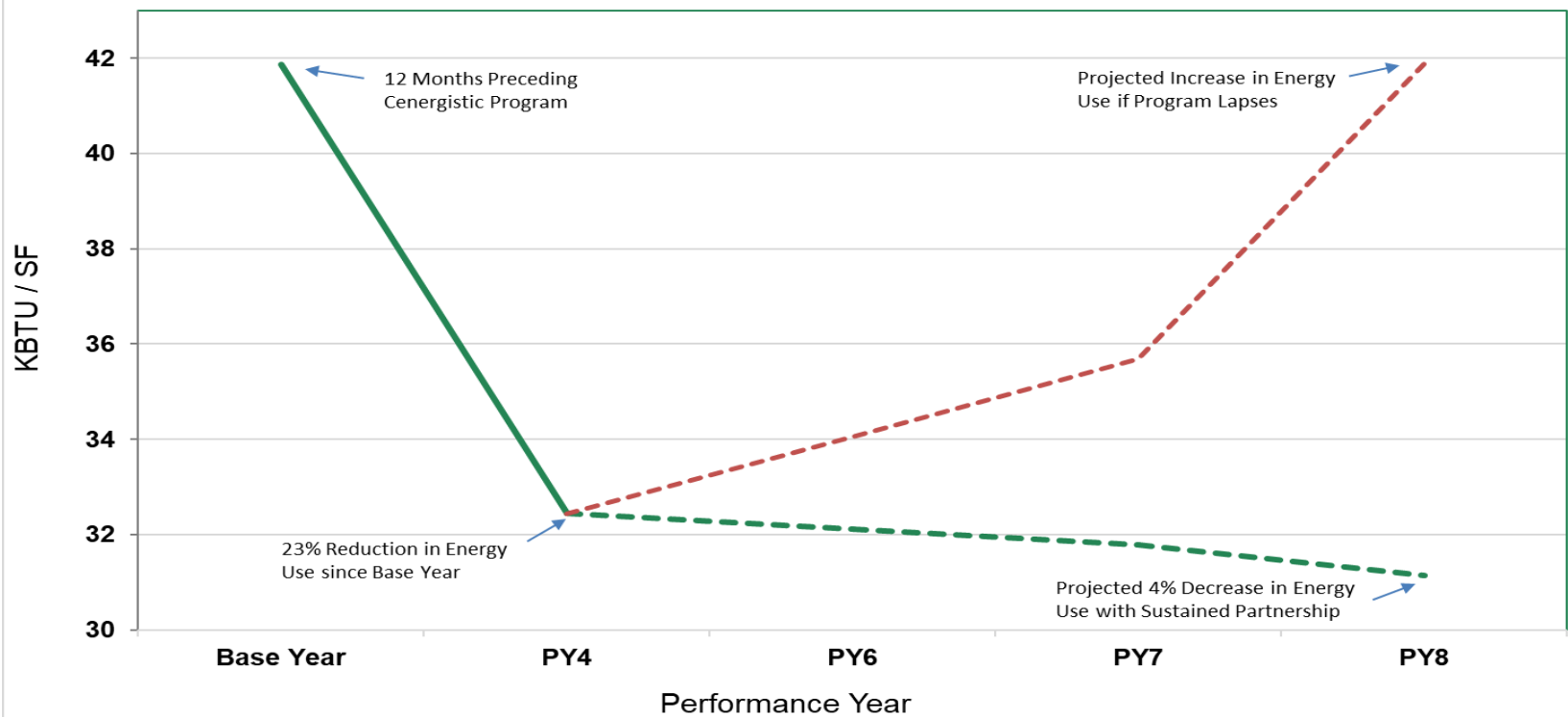


Option #3 No Monitored Energy Program

- Move forward with lessons learned from experience with Cenergistic
- Burden of energy management falls to building automation coordinator, senior staff at school campuses, and Maintenance Department staff
- Re-apply district standards for temperature settings
- No software subscriptions to manage monthly energy usage Green X and Energy Cap software
- Maintenance cannot fully support a robust energy management program with current manpower or resources. Manpower in BAS Workcenter already has manpower shortage (open position exists over 3yrs with ***no qualified applicants***)
- **Human nature; energy usage will increase to previous level if not managed**



Energy Use Index (KBTU / Square Foot)





What has changed in Maintenance since start of Partnership with Cenergistic in 2015

- Facilities and Maintenance has made a concerted effort to replace aging HVAC systems reducing energy usage
- Development of a comprehensive Building Automation work center in Maintenance
- Increased reliability in our HVAC systems county wide
- An increased awareness of utility consumption
- The use of automated systems for temp controls in BLDGS and some Portables (HVAC Controls)



Distractors Missing From the Numbers between Cenergistic and Organic capability

- Organic Capability does not have access to Green-X proprietary software.
- Finding and developing personnel as Qualified as the Cenergistic Team will take time and training
 - BAS (Building Automation Specialist) vacant for 3 years
 - Shortage of A/C mechanics (3-5 open positions at any given time)