

Neshaminy School District

Using PA Act 39 for Select School Renovations

Pennsylvania Acts 57, 77 and 39, Title 62 (Guaranteed Energy Savings Projects):

- Typically used for energy projects also highly effective for infrastructure/maintenance improvements
- Design / build delivery – very cost effective
- Fixed price contract – no change orders, includes soft costs (design, CM, Cx, warranty)
- Turnkey installation of work – single point of responsibility
- Guaranteed savings – helps to buy-down project cost

Typical Project Scope:

- Building envelope: roofing, windows, doors, insulation, infiltration, infrared scanning
- HVAC: high-efficiency heating and air conditioning equipment, automatic temperature controls
- Plumbing systems: low flow fixtures, high-efficiency equipment, piping systems
- Electrical: high-efficiency lighting, power systems, security
- Architectural: minor upgrades, ceilings, paint, flooring

Limitations:

- Can't use for major re-programming or new construction
- Must stay within code limitations

Case Studies:

- Juniata County School District
- Mifflin County School District
- Pottstown School District

Preliminary Analysis for Neshaminy School District:

School	Facilities Study Cost Est.	Project Using Act 29/77	Difference
Herbert Hoover ES	\$12,400,000	\$7,000,000	\$5,400,000
Joseph Ferderbar ES	\$6,300,000	\$3,000,000	\$3,300,000
Poquessing MS	\$8,400,000	\$3,000,000	\$5,400,000
Albert Schweitzer ES	\$8,600,000	\$5,500,000	\$3,100,000
Carl Sandburg MS	\$11,600,000	\$7,500,000	\$4,100,000
Energy Savings Funding	\$0	(\$1,900,000)	\$1,900,000
Subtotal Project Costs	\$47,300,000	\$24,100,000	\$23,200,000

Process

- Issue RFQ to select energy services company (ESCO)
- No risk to District until complete scope and pricing is developed

East Juniata High School

McAlisterville, PA

Owner:

Juniata County School District
75 South Seventh Street
Mifflintown, PA 17059

Project Scope of Work:

- Geothermal HVAC system
- Direct digital controls
- High-efficiency domestic hot water system
- Low-flow plumbing fixtures
- Domestic water piping
- Upgraded electrical systems
- LED lighting upgrades
- Lighting controls
- Stage lighting system
- New windows and insulated panels
- Partial roof replacement & coating (ext. warranty)
- Emergency generator
- Security vestibule
- Security cameras & system
- Ceiling tile replacement
- New VCT flooring
- Painting

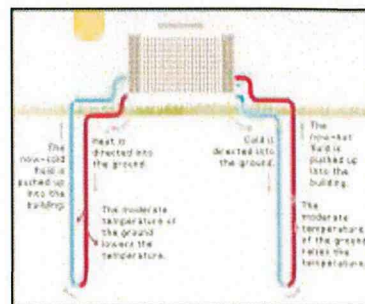


Reynolds Energy Services was hired by the Juniata County School District to provide a guaranteed energy savings performance contract at several of the district's facilities.

In planning the project, Reynolds was tasked with reviewing all major building systems and upgrading or replacing them as efficiently as possible. The goal was to provide another 20+ years of useful life for the East Juniata High School. In doing so, Reynolds carefully evaluated the mechanical, electrical, plumbing systems in addition to the building envelope.

Project Goals:

- Replace heating system
- Add air conditioning
- Replace all windows and doors
- Upgrade lighting systems
- Replace outdated electrical systems (partial)
- Add security vestibule and system
- Upgrade plumbing systems



Project Financials:

Architect's estimate (renovation)	\$16,015,480
Reynolds GESA cost	\$ 8,312,175
Guaranteed Energy Savings (20yrs)	\$ 1,385,820
Net Project Cost	\$ 6,317,485



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Juniata High School

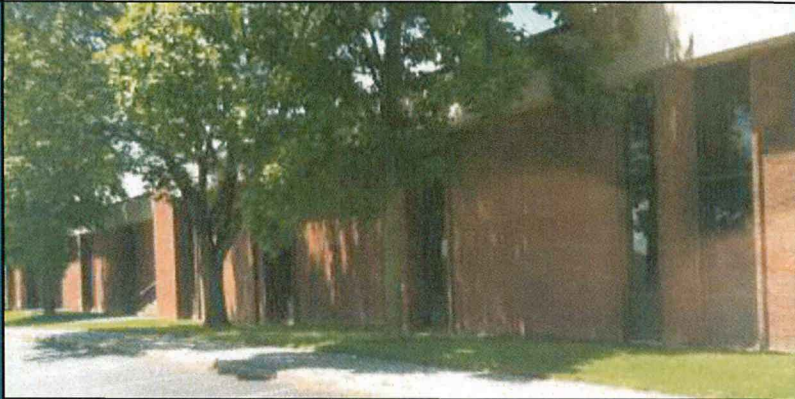
Mifflintown, PA

Owner:

Juniata County School District
75 South Seventh Street
Mifflintown, PA 17059

Project Scope of Work:

- Geothermal HVAC system
- Direct digital controls upgrades
- Condensing domestic hot water system
- Fire alarm system
- Corridor ceiling replacement



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Project Goals:

- Replace heating and cooling systems
- Upgrade building controls
- Replace outdated fire alarm system
- Add security vestibule and system



Project Financials:

Architect's estimate (renovation)	\$ 13,532,018
Reynolds GESA cost	\$ 5,596,506
Guaranteed Energy Savings (20yrs)	<u>\$ 1,103,980</u>
Net Project Cost	\$ 4,492,526



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Tuscarora Junior High School

Mifflintown, PA

Owner:

Juniata County School District
75 South Seventh Street
Mifflintown, PA 17059

Project Scope of Work:

- Fuel switch from oil to propane
- Hybrid boiler plant with high-efficiency condensing boilers
- Condensing domestic hot water system
- Direct digital controls upgrades
- Low-E windows and insulated panels
- Emergency generator
- Security vestibule
- Roof sealing or repair



Reynolds Energy Services was hired by the Juniata County School District to provide a guaranteed energy savings performance contract at several of the district's facilities.

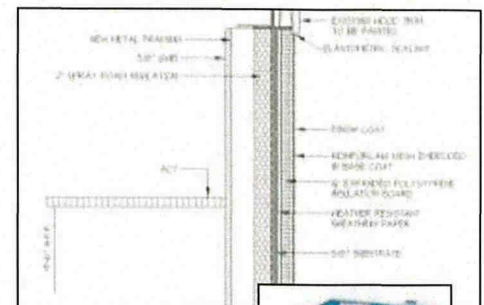
In planning the project, Reynolds was tasked with reviewing all major building systems and upgrading or replacing them as efficiently as possible. The goal was to provide another 20+ years of useful life for the East Juniata High School. In doing so, Reynolds carefully evaluated the mechanical, electrical, plumbing systems in addition to the building envelope.

Project Goals:

- Switch heating fuel from oil to propane
- Upgrade building controls
- Replace select windows
- Add security vestibule and system

Project Financials:

Architect's estimate (renovation)	\$ 9,100,560
Reynolds GESA cost	\$ 2,214,193
Guaranteed Energy Savings (20yrs)	\$ 649,720
Net Project Cost	\$ 1,564,473



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Indian Valley Interm. & Elem. School

Reedsville, PA

Owner:

Mifflin County School District
201 Eighth Street
Lewistown, PA 17044

Project Scope of Work:

- Fuel switch from oil to propane
- Hybrid boiler plant with high-efficiency condensing boilers
- Condensing domestic hot water system
- Air-side HVAC improvements
- Direct digital controls upgrades
- Building envelope improvements
- Lighting upgrades



Reynolds Energy Services was hired by the Mifflin County School District to provide a guaranteed energy savings performance contract at the Indian Valley Intermediate and Elementary School.

The district was taking a building that formerly served as a high school and been re-purposed as an elementary school. The district had \$9.6 million to address the deficiencies of this 1950's vintage school, while the needs identified totaled slightly more than \$14 million. By incorporating a performance contract into this project the district now has been able to address more of the building's needs than they would have by simply approaching this as a traditional renovation project.

Project Goals:

- Switch heating fuel from oil to propane
- Replace heating system
- Add air conditioning
- Replace all windows and doors
- Upgrade lighting systems
- Roof replacement



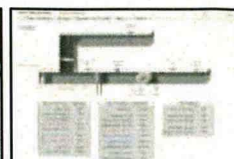
Project Financials:

Preliminary Budget

Local Contribution	\$ 3,700,000
<u>PlanCon Reimbursement</u>	<u>\$ 5,900,000</u>
Total	\$ 9,600,000

Final Budget

Local Contribution	\$ 3,300,000
PlanCon Reimbursement	\$ 5,900,000
<u>Energy Savings Contribution</u>	<u>\$ 2,000,000</u>
Total	\$ 11,200,000



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Barth, Franklin, Lincoln, and Rupert Elem. Schools

Pottstown, PA

Owner:

Pottstown School District
230 Beech Street
Pottstown, PA 19464

Project Scope of Work:

- Lighting upgrades
- New heating, cooling, and domestic hot water plant
- Building automation system replacement



Reynolds Energy Services was hired by the Pottstown School District to provide a guaranteed energy savings performance contract at the Barth, Franklin, Lincoln and Rupert Elementary Schools.

The district was working with an architect to design and implement a renovation of the various district elementary schools. The district had a project budget of \$2.5 million to spend in the renovations, which fell short of addressing all of the needs that had been identified. Through the combination and coordination of a performance contract with the proposed PlanCon renovation the district was able to meet all of the needs, while not spending beyond their budget.

Project Goals:

- Upgrade lighting systems
- Replace heating, air conditioning and domestic hot water system
- Replace pneumatic controls with DDC

Project Financials:

<i>Final Budget</i>	
Project Cost	\$ 3,709,171
<u>Energy Savings Contribution</u>	<u>\$ 1,376,684</u>
Net Project Cost	\$ 2,332,487



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Neshaminy School District

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Advantages of Performance Contract:

A performance contract has the following advantages over a traditional design/bid/build project as typically procured by PA public schools:

1. Guaranteed savings – All energy savings are guaranteed! If the guarantee is not met, the ESCo pays the difference directly to the District. While typical systems are designed for lowest first cost, an energy designer will look at the cost/benefit over time and select the best value systems.
2. Eliminates change orders - Once the Guaranteed Energy Savings Agreement (GESA) is signed the ESCo cannot request a change order. If something is missed, or an unforeseen condition arises, it is the ESCo's responsibility **not** the District's.
3. Turn-key project delivery and single source accountability - A guaranteed energy savings performance contract has a single point of responsibility – the selected ESCo. This does away with the “finger-pointing” regarding any project issues and provides better customer service for the District.
4. Avoid low-bid contracting issues - By selecting an ESCo through an RFQ process all public bidding requirements will have been met and the District and the selected ESCo can jointly determine a list of prequalified subcontractors to bid the project. Choosing three to five pre-qualified and preferred bidders provides assurance of a high quality of the construction and installation at a competitive price.
5. Ability to standardize equipment - The District and the ESCo can select a preferred manufacturer for any building system or component as the basis of design with alternate bids to maintain competition among subcontractors and vendors, thus providing consistency throughout the District.
6. Superior training and operational support - Ensuring the owner understands how to operate the new equipment and controls and maintaining peak-performance are critical to the overall success of a performance contract and meeting the guaranteed savings. To achieve this, ESCos devote significant resources to properly train building operators and monitor the performance of the systems and equipment. The training and support services extend for a full year after project completion and the district can also elect to keep these services beyond the first year if desired.

Advantages of Using Reynolds:

Because of Reynolds' history with the district, knowledge of subcontractors in the area, and unique business model we offer many significant advantages over other ESCo's, including:

1. **Highest quality project at lowest overall cost** - Reynolds understands project delivery from inception to completion, we have a low overhead and pricing model, and we possess highly trained in-house staff. Unlike utility or manufacturing-based energy services companies, Reynolds does not have the heavy overhead burden inherent in those companies or the high profit goals demanded of publically-traded corporations. Reynolds can deliver a higher quality project at a lower cost.
2. **Objective solutions** - Most manufacturing, utility and controls-based ESCos will tell you that the solution to your energy problem is a lot of whatever product they sell. Reynolds takes a more objective approach. We take an in-depth look at your buildings and the equipment, systems, and controls that you've already invested a significant amount of time and resources. We look for ways to get the most energy efficiency and life out of what you already have and will only recommend measures that make sense and provide true cost savings and value for the District. Our solutions are practical and won't over-burden your staff or expose the District to technologies that may not be a good fit for educational facilities.
3. **Successful public school project experience** - Reynolds specializes in Pennsylvania public school construction projects. With more than 200 projects, totaling more than \$2 billion of construction, Reynolds' understanding of public school construction eclipses every firm in the industry. Our comprehensive understanding of school facilities gives us a significant advantage over firms that manufacture and install one small component of the facility. Once a project goes beyond just pure energy conservation, other firms fall short on necessary expertise to properly advise the District and design and install quality solutions.
4. **The Reynolds process** - Being rooted in public school construction and contracting makes Reynolds Energy Services unique when compared against other energy services companies in several ways. We not only understand how to design solutions that work, we also know how to build those solutions as cost effectively as possible while maintaining the highest quality control. Some of our unique features include:
 - ✓ Reynolds bids work out to qualified subcontractors. While bidding work out will lower the cost, it also puts significant risk on the ESCo. Very few ESCo's have the construction expertise to manage this risk and therefore don't bid their work out. Reynolds also has much better subcontractor relationships due to the sheer volume of work that we do. Subcontractors know that the project will go as scheduled and that they will be treated firm but fairly. An added bonus is that subcontractors also give Reynolds preferred pricing because they know how we operate.
 - ✓ Many ESCos struggle to develop and implement a successful project in a timely manner. A project that should take three months to complete can often take four, five and even six months. At Reynolds, we pride ourselves in developing realistic project schedules that we complete on time and with minimal disruption to the client's operations.
 - ✓ Reynolds fosters a team environment. While other firms can be unreasonable with subcontractors when problems occur (even when the ESCo created the problem), Reynolds works with our subcontractors to solve problems as a team effort. This team environment is evident throughout the entire process and results in a better project with significantly less difficulties along the way.

- ✓ Reynolds' on-site staff is the same people who run our construction management projects. Other ESCo's simply don't have this type of expertise and staff projects with staff engineers or programmers that are not skilled in managing large projects and have limited knowledge of other systems. While they may be able to "get away" with this on an energy-only project, it can make larger projects very difficult and lead to significant delays. Delays which can cost the District money in missed savings!
- ✓ Reynolds' post-project services are second to none. A full support staff is engaged with every project for at least a full year after substantial completion. Regular meetings are held, and outstanding issues are resolved promptly and correctly. Performance monitoring provides an excellent feedback mechanism to assist staff with optimizing the facility performance and operation.

