



LICKING COUNTY PHASE I

NEWARK, OH



SAFETY RECORD

ZERO Recordable Events



PROJECT SIZE

Four buildings/190,315 sq ft

\$1,080,093



CONTRACT METHOD

ESPC



ANNUAL SAVINGS

Energy savings: \$91,315

Operating savings: \$13,983

(169% of the guaranteed savings)



Located in central Ohio, Licking County is named for the naturally occurring salt licks in the area. Licking County is part of the Columbus Metropolitan Statistical area, and in the 2021 census indicated a population of 180,401.

Licking County partnered with Energy Systems Group (ESG) to develop and implement three phases of an energy performance contract that included comprehensive energy conservation measures and building improvements in various county buildings.

SOLUTION

Phase I of the project included lighting upgrades, water conservation measures, and direct digital control (DDC) systems in four facilities; vending machine controllers in two facilities; and boiler replacement, laundry ozone system, overhead door replacement, and computer room cooling modifications in one facility. The control solution allowed flexibility to employ additional cost control savings measures. In the Justice Center Building, a laundry ozone system was installed and a boiler in the Sheriff's Office was removed and replaced with two new high efficiency condensing boilers. The Child Support Enforcement Agency received computer room cooling modifications and a new double-wall insulated overhead door. Vending machine controllers were installed in multiple buildings. At the Price Road Annex, the furnace received a tune-up following the manufacturer's preventative maintenance steps.

RESULTS

The implementation of this comprehensive energy performance contract significantly reduced energy costs by \$1,380,683 over 15 years. These improvements addressed lighting, mechanical systems, water conservation, building controls, and ozone laundry.

Additionally, we positively impacted ongoing expenses for the County by reducing operational costs by \$209,745 over 15 years.

All together, the \$1,080,093 project will save Licking County \$1,590,428 over 15 years. ESG overachieved the guarantee and delivered 169% of guaranteed savings over the first 6 years of the guarantee period.



LICKING COUNTY PHASE 2

NEWARK, OH



SAFETY RECORD

ZERO Recordable Events



PROJECT SIZE

One building/80,785 sq ft

\$794,900



CONTRACT METHOD

ESPC



ANNUAL SAVINGS

Energy savings: \$26,875

Operating savings: \$29,293

(169% of the guaranteed savings)

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SOLUTION

Phase II of the project included a direct digital control (DDC) system upgrade and boiler replacement in the Justice Center Building. Two existing hot water boilers were replaced with two new high efficiency hot water boilers and the existing control system was upgraded from pneumatic to a new DDC system allowing for the implementation of additional controls strategies to reduce energy consumption and improve occupant comfort.

RESULTS

The County implemented a second phase to address improvements to the Justice Center Old Jail. The project included a conversion of controls from pneumatic to direct digital controls, as well as the replacement of two boilers with high efficiency condensing boilers.

ESG guaranteed energy savings of \$403,125 and operational savings of \$439,395 over the 15-year term.

All together, the \$794,900 project saved the County \$842,520 in energy and operational costs over the 15-year contract term. ESG overachieved the guarantee and delivered 169% of guaranteed savings over the first 6 years of the guarantee period.





LICKING COUNTY PHASE 3

NEWARK, OH



SAFETY RECORD

ZERO Recordable Events



PROJECT SIZE

24 buildings/427,085 sq ft

\$6,347,365



PROJECT SCHEDULE

Apr 2023-ongoing



CONTRACT METHOD

ESPC



ANNUAL SAVINGS

Energy savings: \$1,677,614

Operating savings: \$506,435



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SOLUTION

Phase III included 24 buildings across the County. The scope included LED lighting upgrades at 23 buildings. Mechanical systems across the County have reached the end of their useful life and ESG will be upgrading them with new, efficient technology. The Licking County Courthouse heat pumps will be replaced with next generation hybrid heat pumps to extend the life of the system and reduce maintenance costs. ESG will assist the County in this phase to restore the Historic Jail with new mechanical systems, fire protection, security, lighting, and electrical systems. The enhancements will also address period correct design.

RESULTS

Currently under construction, this phase will continue the legacy of the Commissioners by addressing critical improvements across all County facilities. This phase will leverage avoided future capital costs of \$7,230,904 to address equipment end of life issues while leveraging reduced energy and operational costs. Capturing important life cycle information in the County's asset management tool, Brightly, will allow the maintenance staff to proactively manage County buildings for years to come.

The comprehensive project will make needed improvements to 24 buildings across the County. Mechanical and electrical upgrades will prepare the Historical Jail for future use while maintaining the historic nature of the building. Over 15 years, the project will reduce energy costs by \$1,677,614 and operational costs of the County by \$365,617.

The \$6,347,365 project will save Licking County a total of \$9,274,135 over 15 years.