



practical  
energy  
solutions

January 19, 2018

Ernie McNeely, Township Manager  
Lower Merion Township  
75 East Lancaster Avenue  
Ardmore, PA 19003

**Re: Pricing Proposal for Energy Savings Project**

Dear Ernie:

I have enclosed our pricing proposal for the Lower Merion Township Energy Savings Project. It follows the same step-wise approach as our RFQ proposal.

We believe the approach we have outlined, while it requires some up-front time and resources, is the best investment for Lower Merion Township. By defining your goals, quantifying cost/paybacks and benefits, prioritizing the projects, and planning so the work can be aggregated and financed in a way that is most beneficial to you, the Township will save money over the course of this initiative. In addition, this step-wise process will fully inform the project implementation phase, so we can be sure to achieve the performance you need and the energy savings that are promised. Without this up-front planning phase, the design is not likely to match your needs and goals, and/or operational performance can fall short due to value engineering or lack of understanding by construction contractors.

Practical Energy Solutions and our subcontractor, Spotts Stevens McCoy, are very excited about the prospect of working with Lower Merion Township. Together, we have strong planning capabilities, depth and breadth of mechanical design and engineering management expertise, and a primary focus on energy efficiency. As local firms, we also place a strong emphasis on service, as this is the number one factor that determines our continued success. Finally, our independence from supplier relationships enables us to make decisions that are always in your best interest.

If you have any questions, please don't hesitate to call or email us at any time. Thank you for this opportunity!

Best Regards,

Paul D. Spiegel, P.E., LEED AP  
President

Dianne Herrin, CEM, LEED AP  
Vice President

Enclosure  
cc: Eric Traub

# Pricing Proposal for Energy Savings Project

January 19, 2018



*Prepared by:*



101 E. Evans Street, Suite 2  
West Chester, PA 19380  
[www.practicalenergy.net](http://www.practicalenergy.net)

# Lower Merion Township Energy Savings Project

## Pricing Proposal



### Phase 1 Overview

As proposed during the RFQ process, PES and our partner SSM propose to identify the Township's energy savings projects; quantify project costs, utility savings and environmental benefits, and provide strong guidance on the most beneficial financing methods for the township. At the end of Phase 1, we will produce a clear, prioritized step-wise plan of action that reflects the Township's goals and needs. This proposal outlines the not-to-exceed pricing for each step in this process and lists the information/resources that we will need from the Township.

### Phase 1 Pricing Summary

In our RFQ response, PES provided an overview of how Phase 1 will unfold. Our pricing proposal follows this approach and philosophy. The following table provides an overview of our NTE pricing for each step in Phase 1. Please note these are NTE values, so if it is determined the Township wishes to de-emphasize a particular task, we will not necessarily bill the full amount. Additionally, we can move the emphasis (and resources) and reallocate budget between tasks as needed, once the process gets underway.

Stage	NTE Price
Step 1: Goal Setting	\$3,250
Step 2: Status Update	\$2,000
Step 3: Current Utility Assessment	\$2,500
Step 4: Targeted Energy Evaluations	\$21,600
Step 5: Strategic Energy Plan	\$7,900
<b>TOTAL: PHASE 1</b>	<b>\$37,250</b>

### Phase 1

We have provided an overview of each step and a list of information/resources we will need from the Township.

#### Step 1: Goal Setting

As discussed, we believe an initial goal-setting process is essential to ensuring that project outcomes will be aligned with and prioritized according to the Township's goals – financial, environmental, operational, and otherwise. Long-term goals (e.g., carbon-neutral energy) are instrumental in guiding fundamental project decisions, because capital decisions made today determine your energy opportunities and operating costs for decades to come. PES will manage and guide this process in a fair and objective fashion by presenting the overall benefits, costs and operational considerations of all approaches to energy efficiency.

<b>Deliverable</b>	Clear articulation of the Township's aspirational and financial goals, which will serve as a driving force behind the project decision-making.
<b>NTE Cost</b>	\$3,250
<b>Information/Investment Required from the Township</b>	<ul style="list-style-type: none"><li>• Goal-setting session facilitated by PES.</li><li>• Meeting to present results and finalize goals.</li></ul>

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### Step 2: Status Update

PES will gather and assess existing audit and energy efficiency project information to identify relevant projects performed since the Jan 2011 audits, and define additional areas that may need investigation – such as needs not adequately assessed in the 2011 report (i.e., retrocommissioning, energy recovery), areas not yet investigated that have potential to reduce energy use at low cost (i.e., installation of bipolar ionization in air handling units to reduce ventilation loads significantly while improving indoor air quality), and other needs that should be addressed as part of any energy-efficiency project, such as comfort, maintenance and performance/comfort concerns (e.g., insufficient or uneven heating/cooling). This will also include a full assessment of streetlights to ensure a current streetlight inventory is available.

<b>Deliverable</b>	Report of status/needs.
<b>NTE Cost</b>	\$2,000
<b>Information/Investment Required from the Township</b>	<ul style="list-style-type: none"><li>• Information regarding relevant projects performed since the 2011 audits (project scope, cost).</li><li>• Access to facilities staff.</li></ul>

### Step 3: Current Utility Assessment

A current utility assessment of the major energy-consuming facilities and streetlight tariffs will enable us to update the energy performance and cost data in the 2011 energy assessment and streetlight reports, identify energy consumption trends since then, understand the impact of energy efficiency projects performed in the Township since the audit, and identify additional energy-saving opportunities (as evidenced by increases in energy consumption and changes in energy consumption patterns).

PES will benchmark the Township's primary buildings' utility consumption and costs against historic performance and national datasets of comparable buildings. This will provide further direction for prioritizing those energy-saving opportunities that will provide the Township with the greatest payback.

PES will also evaluate utility rates and tariffs (for buildings and streetlights) so we can identify pure cost-saving opportunities that will help the Township realize greater savings.

<b>Deliverable</b>	Utility benchmarking and trend report.
<b>NTE Cost</b>	\$2,500
<b>Information/Investment Required from the Township</b>	<ul style="list-style-type: none"><li>• Utility bills for all facilities and streetlights, 2011-present.</li></ul>

### Step 4: Targeted Energy Evaluations

PES and SSM will perform targeted energy evaluations as identified in Steps 2 and 3 so we can clearly define and prioritize projects based on viability, cost/payback, impact, and the Township's goals. These evaluations will be focused to ensure we are working efficiently and effectively on the Township's behalf. For example, some facilities may only need a high-level assessment (ASHRAE Level 1), whereas others may benefit from a deeper evaluation

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(ASHRAE Levels 2,3), and still others may benefit from a highly focused approach that explores on one critical area of energy waste (i.e., building envelope, HVAC controls, etc.). This step will also include a full streetlight evaluation and a plan for upgrading them as needed.

<b>Deliverable</b>	Energy evaluation and streetlight reports.
<b>NTE Cost</b>	\$21,600
<b>Information/Investment Required from the Township</b>	<ul style="list-style-type: none"> <li>• Access to all needed facilities and mechanical equipment</li> <li>• Access to facilities personnel</li> </ul>

### Step 5: Strategic Energy Plan

The Strategic Energy Plan will combine all of this work into a cohesive and clear action plan for the Township that will prioritize projects based on the Township's goals, paybacks, and needs (i.e., failing/aging equipment will require early replacement), provide a recommended plan of action for financing the projects based on all available options, and present an overview of costs and paybacks. As part of this step, we will also provide a clear recommendation for upgrading the Township's streetlights based on current LED technologies, current LED lighting costs and utility tariffs, and available financing options.

<b>Deliverables</b>	<ul style="list-style-type: none"> <li>• Draft Strategic Energy Plan for review/comment.</li> <li>• Final Strategic Energy Plan.</li> </ul>
<b>NTE Cost</b>	\$7,900
<b>Information/Investment Required from the Township</b>	<ul style="list-style-type: none"> <li>• Meeting(s) of all relevant personnel to review the draft plan (n=2).</li> <li>• Final meeting for final presentation of plan (n=1).</li> </ul>

### Phase 1 Pricing Terms & Fee Schedule

The Township will be billed monthly based on work performed, and according to the fee schedule below, with payment due in 30 days from invoice receipt. If additional work and costs are anticipated at any time, PES will only proceed with the express written consent of the Township. NTE prices do not include expenses, which will be billed separately at the rates listed in the fee schedule.

Company Principal/Engineer (P.E.)	\$ 175.00/hour
Senior Wastewater Engineer	\$ 135.00/hour
Project Manager/LEED AP, Certified Energy Manager	\$ 125.00/hour
Streetlight Analyst/Engineer	\$ 125.00/hour
Senior Staff Engineer	\$ 100.00/hour
Staff Engineer	\$ 90.00/hour
Data Manager/Administrative	\$ 80.00/hour
Expenses	
Plots, printing and other direct expenses	Cost + 10%
Mileage	\$ 0.50/mile

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## Pricing Proposal



### Phase 2: Implementation Pricing & Terms

PES and SSM will act as the Township's independent owner's representative for all project specification, design, bidding, contractor selection, and engineering management. PES may recommend a general contractor in some instances but will retain oversight over quality control. We will also manage the bidding process for the Township via PennBid, manage all pre-bid meetings and bidder questions, perform thorough reference checks, and provide clear guidance on contractor selection.

Once contractors are selected, PES and SSM will provide engineering management oversight, with regular site visits and progress reports, contractor meetings as needed, punch lists and follow-up to ensure all work is completed and commissioned. It is our intent to see projects through and provide assurance to the Township that they will function as designed.

For all projects identified in the Strategic Energy Plan and agreed upon by the Township, PES will provide the Township with a price that is primarily based on percentage of total project cost (10%). This cost will be validated based on an estimation of personnel/hours required to complete the job. If the estimation of personnel cost conflicts significantly with the 10% figure (up or down) due to unique circumstances, PES will consult with the Township and agree upon a price for the project. The estimation of personnel costs will be based on the Phase 2 fee schedule, below. The total cost will be itemized by project phase (design-50% completion, design-100% completion, bidding & contractor selection, engineering project management during construction, project completion) and billed to the Township monthly as progress payments. Payment is due within 30 days of invoice receipt.

### Phase 2 Fee Schedule

The following rates are firm through December 31, 2018.

PES/SSM Company Principal/Engineer (P.E.)	\$ 175.00/hour
SSM Director of Mechanical Engineering (P.E.)	\$ 170.00/hour
SSM Senior Wastewater Engineer	\$ 135.00/hour
PES Project Manager (LEED AP, Certified Energy Manager)	\$ 125.00/hour
PES Streetlight Analyst/Engineer	\$ 125.00/hour
PES Senior Staff Engineer (P.E.)	\$ 100.00/hour
PES Staff Engineer (LEED AP)	\$ 90.00/hour
PES Data Manager/Administrative	\$ 80.00/hour
Expenses	
Plots, printing and other direct expenses	Cost + 10%
Mileage	\$ 0.50/mile