

# **TOWNSHIP OF LOWER MERION**

## **Public Works Committee**

### **Issue Briefing**

**Topic:** Energy Savings Program

**Prepared By:** Ernie B. McNeely, Township Manager

**Date:** August 1, 2019

#### **I. Action To Be Considered By The Board:**

Authorize execution of a Guaranteed Energy Savings Program Agreement with Energy Savings Group (ESG) to proceed with the proposed energy savings program scope as directed by the Board of Commissioners.

#### **II. Why This Issue Requires Board Consideration:**

The Board of Commissioners must authorize execution of a guaranteed energy savings agreement to proceed with the proposed energy savings program.

#### **III. Current Policy Or Practice (If Applicable): N/A**

#### **IV. Other Relevant Background Information:**

Our guaranteed energy savings contractor ESG has developed final pricing for the possible energy savings program to be considered by the Board of Commissioners. The final pricing, scope options, payback calculations and environmental impact (carbon dioxide reduction) are provided as well as scope option recommendations provided below from staff. The entire process, since the BOC wanted a consultant to oversee the process, has been additionally guided by Provident Energy/ICS Consulting.

The Provident Energy/ICS Consulting team was hired in February 2018 to guide the Township through an energy savings program process that included gas and electric procurement plus energy savings measures. The consultants analyzed Township facilities and produced a report in August 2018 identifying energy savings opportunities, potential savings, payback calculations, carbon dioxide reduction and options for completing a project. Following an RFP process the BOC in February 2019 authorized execution of a project development agreement with ESG.

ESG working with Township staff and Provident Energy/ICS Consulting has now completed a comprehensive streetlight inventory, facility inspections and developed pricing for the proposed program. This energy savings program guided by Provident Energy/ICS Consulting has already produced substantial energy cost savings through procurement of less expensive electric and gas plus can produce additional energy usage savings if a Guaranteed Energy Savings Project Agreement to proceed with an energy savings project scope is authorized. Using the expertise of Provident Energy/ICS the Township shopped the electric supply and was able to obtain three-year rates that would save over \$200K per year if usage stays constant plus purchase 100% green renewable energy. This renewable energy purchase is reducing CO<sub>2</sub> (carbon dioxide) emissions from Township activities by 8,336 metric tons per year the equivalent of 1,785 passenger vehicles driven per year.

As relayed in the 7-17-19 Manager Update the Pennsylvania law gives local government entities a way to pay for energy savings projects without having to raise taxes or drain reserves. Additionally, the law provides government entities with a process that allows them to take the energy savings from the project and apply those savings to complete other needed projects that do not have to provide energy savings as long as the total overall project payback is 20 years or less. The project(s) get completed but there is no increase to the operating budget since any debt incurred is paid off over time from the energy savings. In this proposed program scope the Board of Commissioners is asked to consider using some of the energy savings to pay for some boiler and HVAC project upgrades that do not produce a reasonable energy savings payback but are capital improvements that will have to be paid for and included in the CIP (Capital Improvement Program) within the next six years.

In August 2018 Provident Energy/ICS produced a Phase 1 Feasibility report to outline the options and projected costs for a list of energy savings related project measures. That report showed cost estimates totaling \$6.341 million for all projects reviewed, \$4.476 million for a recommended core group of projects and a core group enhanced project at \$4.671 million. Now that ESG has gone through a detailed streetlight inventory, facility inspections, competitive pricing and an actual project design it is positive that the project costs have come in less than the Phase 1 Feasibility Report. There additionally has been some adjustments in the scope as priorities changed and certain projects were deleted or added but the driving force for this project is the energy and dollar savings produced by the lighting projects. Those savings along with the energy procurement savings allow the Board of Commissioners to consider using some of those savings to pay for other boiler or HVAC improvement projects.

The reports Provident Energy/ICS and ESG have delivered show a Priority 1 program that include lighting and boiler/HVAC projects with a total cost of \$3.729 million. It could include other Priority 2 projects as options which could take the program cost up to \$4.231 million. All these projects are considered critical infrastructure improvements that will need to be completed in the CIP over the next six years and obviously some are considered by staff to be more pressing than others due to failing conditions with existing systems. The Board of Commissioners may want to consider a scope of services for the program that reflects variations of the consultant project scope breakdown which could include the following:

1. Priority 1 Projects - Includes lighting and some boiler/HVAC -	\$3.729 million
2. Lighting Projects Only – No use of savings to fund other needs -	\$2.881 million
3. Lighting Projects Only – With Ardmore Poles Painted -	\$2.967 million
4. Streetlights – Cobra and Colonial only -	\$2.287 million
5. Streetlights – Cobra, Colonial & Ardmore Lights w/poles -	\$2.614 million
6. Priority 1 & 2	\$4.231 million

The staff recommended option is to proceed with the Priority 1 program at \$3.729 million with the understanding that more limited Lighting Project variations as well as more limited Streetlight Projects could be viable as less expensive options but would leave a substantial list of other improvement projects that will have to be completed outside this program in the coming CIP timeframe. The Priority 1 scope includes \$86,400 for painting the light green Ardmore streetlight poles as they are in bad shape and would really look worse with brand new light fixtures. The Priority 2 projects do merit consideration as they add redundant (2) high efficiency condensing boilers to both the Township Admin Building and the Police Building plus add controls to the new system at Belmont Hills Library. It is recognized that funding all Priority 1 & 2 measures at \$4.231 million would bring added pressure to the CIP financing needs. In terms of return on investment the recommended Priority 1 program combined with the procurement savings produce a payback of 9.2 years which is very good and well within the 20-year timeframe allowed by the Pennsylvania statutes. Adding in the Priority 2 projects would bring the overall return to 10.2 years.

The preliminary CIP delivered in June to the Board of Commissioners showed a funding gap of slightly less than \$6.0 million. I have recommended that the \$2.0 million received from the sale of the asset (the parking lot property under the One Ardmore Place Building) be reinvested into Township assets through financing at least a portion of this program replacing the streetlight system and other energy program projects selected. If the recommendation to use those funds is accepted and the Priority 1 program at \$3.729 is approved the balance needed of \$1.729 million added to the CIP funding requirement brings the 2020 debt financing need to \$7.729 million still well below the \$8.7 million in debt to be paid in 2020 so the overall debt of the Township would still be reduced in 2020.

Any energy savings program the BOC may decide to pursue will also greatly reduce direct CO<sub>2</sub> emissions from Township facilities. After agreement execution ESG would begin immediately to retain the suppliers and the contractors they have identified through a competitive process to complete the project. Sample installations would be provided so that quality of life impacts such as color temperature of streetlight lamps could be decided. The investment in these assets would once again produce a return on investment for the Township as the energy savings produce payback of the investment.

#### **VI. Staff Recommendation:**

The recommendation is to authorize the Township Manager to execute a Guaranteed Energy Savings Project Agreement subject to Solicitor review with Energy Savings Group (ESG) to proceed with an energy savings program scope of \$3.729 million or other scope as directed by the Board of Commissioners.