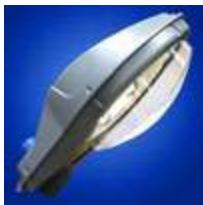


## **Penn Hills Goes Green**

The residents of Penn Hills care as much about the environment as any other American community and we too want to be in the front row with smart technology and innovation. So how do we get on board at the local level? What can local government do to encourage the utilization of best practices and new technology? How can we best conserve our current resources and minimize our energy demands? Penn Hills residents have already learned that they can reduce their sewage bills by controlling their use of water. How can we expand on this way of thinking and reduce our energy demands or improve the environment?

Certain real opportunities are currently in front of us. The federal government has provided funding through the Department of Energy for Energy Efficiency and Conservation Block Grants. Penn Hills in 2010 will receive approximately \$182,000. We have hired consultants and an energy management plan has just been completed. Other funds will become available to Penn Hills homeowners through the Weatherization Program and similar initiatives. We need to develop a implement the strategy and prepare the community for full benefits.



The Municipality engaged the services of Envinty Inc., energy consultants based in State College, Pa. The consultants have identified the best possibilities for municipal improvements designed to save energy and lower emissions and their report will be submitted to the federal government as part of the grant process. The Penn Hills Council is scheduled to discuss these proposals in April. The final recommendations will, of course, become a part of this plan. Currently the plan recommendations are:

- 1.** Replace lighting fixtures in the Municipal Building, the Senior Service Center, and the Wm. McKinley Citizen's Center at a cost of approximately \$37,500 and an annual payback of \$17,200. The investment payback would be two years.
- 2.** Replace two boilers and thermostats in the Municipal Building. The estimated cost is \$88,000 and the energy savings would be \$4,400 a year. The payback is 15 years but the current boilers are unreliable and need to be replaced regardless of costs.
- 3.** Replace bulbs in traffic signals at ten intersections. The estimated cost is \$67,800 with a savings of \$17,000 and a 3.8 year payback.
- 4.** Replace a motor and a pump for the Water Pollution Control Department
- 5.** If funds are remaining from the grant, undertake other miscellaneous energy saving measures at the Municipal Building.

The Strategic Energy Management Plan is incorporated as Appendix \_\_ and included many additional recommendations for all municipally owned buildings. We propose to pursue all of these recommendations and both save energy costs and reduce emissions.

With this in mind let's consider a list of goals and objectives or action steps that could or should be part of either short or long term plans in Penn Hills as follows:

## Municipal Owned Buildings –

**1. Conduct an energy audit** of every municipally owned building in Penn Hills. Propose improvements that would reduce energy demand and generate savings. Look for the potential of employing new technology to reduce fossil fuel emissions or otherwise protect public resources. Begin with the recommendations by Envinity and expand activity based upon available funding.

**2. Encourage Leed construction standards for new public buildings and renovations to existing public buildings.** Devote a percentage of construction and maintenance budgets to green technology. Utilize smart and energy efficient components.

**3. Plan for reduced energy demand.** Ask each Department Directors and those responsible for building maintenance and HVAC systems to prepare an energy savings plan for their departments that would reduce energy demand.

**4. Grants for Non-Profit Organizations** – Consider authorizing grants to our VFD's, the Lincoln Park Community Center, Shining Arrow, the YMCA, the Service Association, and other non-profit organizations in the community for energy saving audits and improvements.

**5. Library** – Consider the use of grant funds for a photovoltaic system for the Library roof, and other buildings if practicable. Select an Electric Generations Supplier (EGS) and consolidate or separate billing.

**6. Senior Citizens Center** – Consider replacing the boiler in the next five years. Estimated energy savings are \$3790 per year.

**7. Public Works Garage** – Perform basic weatherization and maintenance, as well as installing 7-day programmable thermostats to manage unoccupied temperatures for an estimated savings of \$2,000 per year.

**8. Plum Creek Wastewater Facility** – Over the next two years take a comprehensive look at the facility. The consultants estimate a potential savings of \$12,000/year in energy costs.

## Municipally Owned Facilities

**1. Conduct an energy audit of facilities owned and controlled by local government.** Expand on the analysis prepared by Envinity. Look for the potential of employing new technology to reduce fossil fuel emissions or otherwise protect public resources.

**2. Street Lights** – Study the employment of new technology with our street lighting system. Look toward either increasing the efficiency of existing lighting, installing new lighting systems, or otherwise reducing energy demand while maintaining public safety. Meet with neighboring communities and Duquesne Light Co. toward developing region solutions.

**3. Traffic Lights** – Install new LED lighting on all Penn Hills traffic signals with the current grant proceeds. These new bulbs are evidently more cost effective and replacement now is a logical conclusion.



**4. Reduce energy demand in Municipal Parks** – study the current use of energy in our parks. Attempt to reduce energy demand for ball field lighting. Consider reducing the lawn and grass areas currently mowed. Analyze the use of water and look for possible reductions.

**5. Municipal Fleets** – Plan for reduced energy demand for all municipal fleets. Analyze the current energy use and make recommendations for reductions and cost savings. Consider the long range energy demand when purchasing new vehicles and incorporate green standards with purchasing specifications. Also, consider retrofitting existing vehicles with Blades and similar new technology designed to reduce emissions and/or generate fuel economy.

**6. Wastewater Treatment** – Analyze and consider new technology designed to minimize GHG emissions at the Plum Creek Treatment Plant.

**7. Environmentally Preferable Purchasing** – Consider the adoption of an Environmentally Preferable Purchasing (EPP) Policy. Reference this policy to employee training manuals and purchasing specifications.

**8. Municipal Resources** – Continue to explore the potential for gas well production, forestry, and other energy producing materials on municipal land. Consider the benefits to the community at large while maintaining Green standards.



**9. New Technology** – Be prepared to promote and utilize new technology such as rubber sidewalks, green roofs, and other interesting concepts that are being developed as we plan.

## The Community

1. **Building Codes** – Consider the adoption of Green Building Code requirements. Create incentives for Green Building Design without enforcing regulations that generate excessive construction costs. Promote the use of geothermal systems and photovoltaic systems.
2. **Subdivision and Land Development** – Update the Penn Hills Subdivision and Land Development Ordinances to incorporate sustainable land use and land development policies and practices. Develop reasonable regulations on both commercial and residential windmills and similar land uses.
3. **Smart Transportation Initiatives** – The Municipality currently has an active application with Penn DOT for the development of two Park-and-Ride lots in Penn Hills. Continue to pursue funding through this program and otherwise support the development of facilities that lead to reduced transportation costs.
4. **Stormwater Management** – Continue to meet DEP stormwater management regulations while pursuing new methods to manage stormwater more effectively. Continue to look for more efficient ways to handle stormwater – develop swales, eliminate pipes when possible, and provide retention at the source when possible.
5. **Recycling** – The Municipality recently received a report and analysis of our current recycling programs. This report is identified in the Comprehensive Plan appendix and includes a variety of recommendations that have yet to be officially adopted by Council. We expect to expand services in yard waste and we expect to continue our multiple materials curbside pick up program.



6. **Greenhouse Gas Emissions** – The Municipality has also joined forces with its neighbors to reduce greenhouse gas emissions. Wilkins Township has received a grant from the PA Department of Environmental Protection to have a Greenhouse Gas Emission Inventory completed and Penn Hills and Forest Hills are participating in the inventory study. The Duquesne University Center for Environmental Research and Education, (CERE) was hired to complete the Greenhouse Gas Emission Inventory for the each of the three communities. Penn Hills, Wilkins and Forest Hills have also joined the International Council for Local Environmental Initiatives, (ICLEI). ICLEI Local Governments for Sustainability is a membership association that will provide technical assistance and offer software to assist with the completion of the inventory. Municipal, commercial and residential greenhouse gas emissions will be evaluated. Upon completion of the GHG inventory a public meeting will be held and

recommendations for decreasing greenhouse gas emissions will be made. CERE will work with Penn Hills and participating communities to pursue future grant opportunities that will fund renewable energy investment programs that promote energy efficiency.

- 7. Green Gardens** – Consider the use of federal or state grant funds to develop community gardens and food production facilities for both private and non-profit use. Promote the development of community gardens by non-profit and civic organizations.



- 8. Maglev** – Perhaps no other facility would reduce fossil fuel emissions and reduce energy demands more than Maglev which is discussed in other sections of this Comprehensive Plan. It goes without saying that Maglev serving Penn Hills would represent more than all of the above in terms of modified life styles. It is noted, however, that the current Obama administration is promoting high speed train activity and the odds have dropped a little bit on a “longshot”. Recent reports are that Tampa Florida will receive substantial funding toward a high speed rail system in Tampa. We can only look to lobby for and promote opportunities to bring Maglev to Penn Hills but be prepared to move on in the near future without Maglev.

