

ALTERNATIVE ENERGY DEMONSTRATION SHED AT THE TOWNSHIP BUILDING

The Whitemarsh Environmental Advisory Board (EAB) is dedicated to protecting our local environment by providing information to the residents of Whitemarsh Township of environmentally important issues such as stormwater management, recycling and how the township and each resident can reduce their carbon footprint. As part of the EAB's efforts to educate the public, the Whitemarsh Township Environmental Advisory Board used \$1,500 in grant funds from the Philadelphia Zoo Community Conservation Grant to build an Alternative Energy Demonstration Shed, which demonstrates simple environmentally friendly methods that will reduce stormwater runoff and carbon emissions via solar energy.

This small 6'X8' shed has a greenroof, three (3) solar panels, LED lighting, two (2) rain barrels, a solar heater and sits adjacent to the existing native garden at the Whitemarsh Township Administration Building.

The solar panels convert sunlight into DC current which is stored in a pair of 12V batteries inside the shed. This DC current is used to power a water pump that is fed periodically from the two rain barrels and water is pumped to the spraying system that surrounds the greenroof. Runoff from the greenroof is returned to the rainbarrels. When capacity of the rainbarrels has reached its maximum, excess water runs into the rain garden to slowly soak back into the ground. During the winter, the spray water is diverted to the solar heater to prevent the rain barrels from freezing. The indoor and outdoor lights are also powered by the solar panels.

The cooling effects of the green roof is demonstrated by comparing indoor and outdoor thermometer readings.

So the next time you're at the Township Building, be sure to stop by the Alternative Energy Demonstration Shed to see how simple it can be to incorporate some of the methods of alternative energy in your own home!



Solar Panels and Heater

Solar Powered LED Light

Rain Barrel

Green Roof