

Our Energy Future

"Our future depends on what we do in the present." – Mahatma Gandhi

Non-fossil fuel power sources have been in the news for years as people everywhere became aware of the realities of climate change. The impact of fossil fuels on the world our grandchildren will live in can no longer be ignored. However, the decision to commit our community's resources to a new technology is a weighty one and obligates the SLV Board of Trustees to consider all reasonable and responsible pathways. Over the past year, several alternative energy suppliers have been consulted for solutions that would both lower SLV's carbon footprint and provide cost-efficient operation. What we've learned is that there are no magic carpets to the future. This article is a brief summary of non-fossil fuel solutions being used in our region.

Wind Power

Wind turbines generate electricity through spinning blades connected to a shaft that turns a generator. Since the wind does not blow at a steady rate, a way to store energy must be a part of any wind system. Storage batteries for wind systems are costly and bulky. With current technology, the tower and blades would not be permitted for our small area. In addition, NJ is a "low wind capacity" state, meaning that SLV is not a good candidate for wind generation.

Fuel Cells

In a fuel cell, hydrogen from a tank passes across a membrane, mixes with air, and produces an electrical current. No combustion takes place, which makes this system of generating electricity extremely "green". In future years, fuel cells are certain to become practical for applications the size of SLV. Currently, this solution is not affordable, and the permitting process would be extremely challenging.

Geothermal Energy

Below a certain level, the ground beneath our feet holds a steady temperature of 50 degrees Fahrenheit. By placing fluid filled pipes underground, a building can be heated or cooled by taking advantage of the temperature difference between indoor air and the steady ground temperature. Geothermal systems are showing great promise throughout the Northeast and tax incentives or credits exist that make system installation more cost effective, although this still remains an expensive option. Longtime residents of Middletown may be familiar with systems installed years ago at some township schools. Since then, there have been great advances in this technology, and it remains a possibility for consideration.

Solar Power

When the subject of alternative energy comes up, most people think of solar power first. Indeed, the technology has made great strides in the past 10 years and is now widely distributed across commercial and residential applications. NJ has an average of 205 days per year when the sun shines for all or part of the day. Solar energy would not be able to supply all the power we need but could lessen SLV's carbon footprint. SLV's common spaces could allow for solar collection and power generation because today's solar systems are quite versatile and collectors could be placed on the Clubhouse and maintenance building roofs, or even be free-standing in certain areas. Cost to purchase and maintain the system could potentially be offset by investors seeking tax credits,