

Introducing Phase II of Eliot's Solar Initiative: The Landfill PV Solar Array

A Benefit to the Town, Taxpayers & the Environment



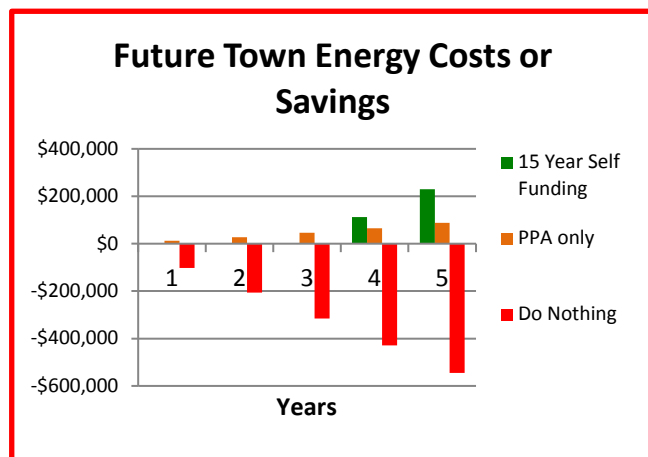
The Eliot Energy Commission is asking the citizens to consider installing a solar array on the closed landfill this year (Question #26) that could save the Town considerable money over the next 25 years. This is Phase II of the plan to take control of the town's energy costs through renewable energy generation.

The following is a cash flow chart that compares three options being considered:

- 1) The **15-Year Self-Funding** option: We hire a contractor to install a 132 KW solar array on our capped Landfill. We would purchase this solar array by putting the savings from the discounted electricity the array would produce into an escrow account. Once the savings is equal to the fair market value, it could be purchased sometime in the 10th to 15th year. **This option would save the Town upward of \$230,000.**

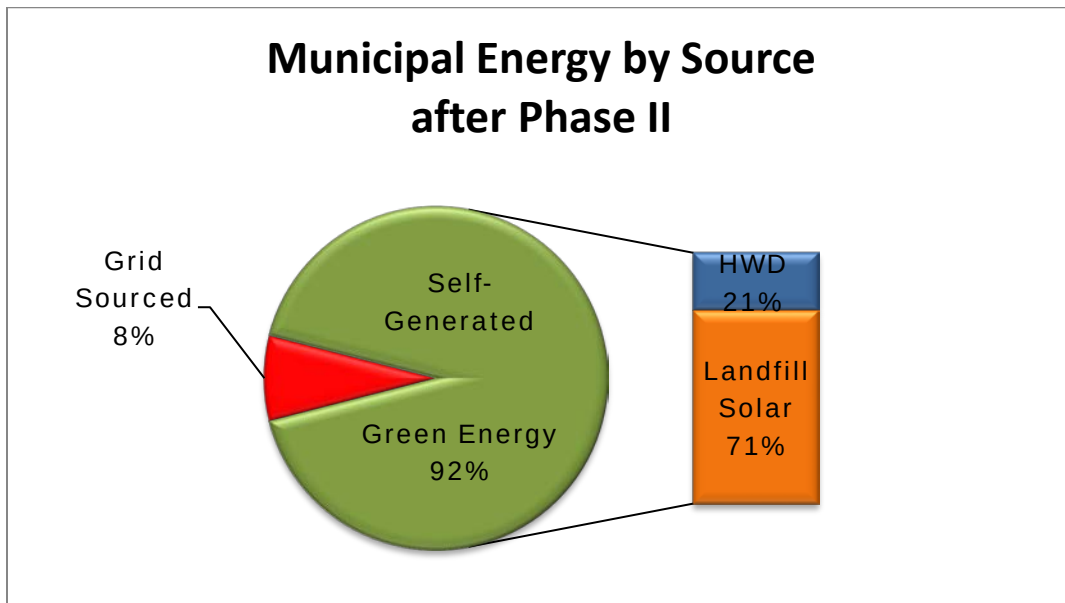
- 2) The **Power Purchase Agreement (PPA) Only** option would allow a contractor to build and maintain ownership of a solar array on the landfill and we can purchase power at a reduced rate from them for the next 25 years. **It is estimated that the town could save \$87,000 with this option.**

- 3) The **Do Nothing** option means we do not proceed with Phase #2 and do not install a solar array on the landfill. We continue paying CMP for our electricity at the current offer. Currently we pay over \$28,000 per year for electricity. With solar we could offset about \$20,000 of that expense. Over the last 20 years, electricity rates have increased 3% per year. **It is estimated that the Town could pay up to \$545,000 over the next 25 years under this scenario.**



*The Eliot Energy Commission recommends installing a solar array on the landfill purchasing it with the **15-Year Self-Funding Option**. Under the Power Purchase Agreement, the contractor can sell the facility to the Town anytime after the 5th full year. The Chart above shows a buy-out after 15 years but the sooner the Town purchases the installation the more savings we could realize.*

Question #26 asks you if you would like Eliot to take control of our energy costs and start producing 99% of our energy consumption from renewable sources.



The Eliot Energy Commission has been tracking the Town of Eliot's electrical usage since 2009. Town buildings, stoplights and sewer pumps consume about 205,000 kWh of electricity per year. The two solar arrays are estimated to produce up to 202,000 kWh per year.

Town of Eliot			
Electrical Usage			
Starting 3/2016 through 2/2017			
Description	KWH	Description	KWH
Town Hall	27,624	Rte 236	3,326
Fire Department	19,983	Kittery Road	1,475
Transfer	19,706	Rte 236 / Beech	1,367
Town Garage	11,110	Boat Basin	1,030
Police Station	49,640	River Road	603
Main Street Sewer Pump	34,520	Dow Hwy Traffic Light	526
Dixon Ave Sewer Pump	1,448	State Street / Bolt Hill	332
Pleasant Street Sewer Pump	29,484	11 Dixon Road	309
Rte 236	1,557	Old Road	271
Total		204,311	

Installing a PV solar array on our capped landfill at the Transfer Station has many benefits. It could provide us with **local control** of the source of our Town's electricity, **lower costs** as well as shifting away from polluting sources and toward a **cleaner, renewable energy** source.