A Few Facts

About the Solar Array on the Electric Station Garage Roof

MIDDLEBOROUGH
Gas and Electric Department

Size

16.8 Kilowatt maximum … 80 panels, 210 watts each … maximum estimated generation based on sun angle & daylight – 20,200 kilowatt hours per year. Equivalent usage to 3 – 4 residential homes.

Compared to recent installations:

Mass. Municipal Wholesale Electric Company, Ludlow, MA … 48 panels … 9.6 Kilowatts
Braintree Electric Light Department … 48 panels … 10.4 Kilowatts

Cost

$130,000 installed. About $7 per watt, typical for current installations. Cost of energy generated over a 25 year period estimated to be about 26₡ per kilowatt hour. This doesn't take into consideration Renewable Energy Credits that could offset this cost.

Compared to typical power costs:

Last year's total purchased cost for power was $27.5 million. About 9.8₡ per kilowatt hour.

First Day Operation

Connected to the website register by noon. A brilliant sunny day – October 6th, 2009. By day's end showing:

- 285 kilowatt hours generated …
- maximum 9,600 watts attained …
- 326 lbs. carbon dioxide emission offset

Comparison Emission:

Typical home generates over 3,200 lbs of CO2 per year
1st day operation offset 10% of one household

Public View

Website connection to the solar array, reporting on current and recent energy produced: www.solrenview.com then >Live Sites … scroll down to Great Northern Electric, the Middleborough site. Save this as a favorite to return frequently. A link will be provided on the Department website soon … www.MGandEonline.com