

10 KW self-installed PV system

A. System

1. 10 panels x (4) pole mount = 40 panels
2. (2) 5kw inverters back fed onto main load center
3. 30 vacuum tubes roof mounted, 80 Gal water tank

Solar water installed October 2011. PV installed late 2012 and early 2013.

B. Costs (Rounded)

1. Solar water total (2011):

\$7,500 total - (\$1,500 state rebate, \$2,200 fed tax credit), net: \$3,800

2. 5KW PV total (2012)

\$26,000 total - (\$4,500 state rebate, \$7,800 fed tax credit), net: \$13,700

3. 5KW PV total (2013)

\$12,750 total - (\$ zero state rebate, \$3,800 fed tax credit), net: \$8,850

Net total for all (3) projects: \$22,500

Note: Some contractor/labor costs included in this total such as site work, concrete and hot water tank install.

C. Outputs & Cost Savings

1. Solar water Hard to quantify exactly, but I think in 2012 it shaved about \$500 off of fuel oil bill (previously oil costs were about \$2,500 per year)
2. PV Since having full system operational March 2013, no electricity bill except for \$12 monthly standing charge from PSNH.

In the 19 months since March 2013, output has been a little over 1 Mw per month

3. I estimate total energy costs have gone from about \$4,000 per annum to about \$1,000 (\$ 800 for propane and \$150 for heating oil back-up). I'm now also receiving about \$500 per year back in RECS for electricity production. So this reduces net annual energy cost to about \$500.*

* Including other energy saving changes not mentioned above