

Energy Project Results

June 23, 2010

It's been two years since we completed our large energy project in mid-May 2008. The results of this project have been dramatic in terms of savings in \$\$ and energy use:

Year Timeframe	Cost (\$\$)	Energy Use (Kw)*
June, 2007-May, 2008	\$3,818	87,630
June, 2008-May, 2009	\$2,175	26,684
June, 2009-May, 2010	\$2,337	28,514

*Calculation of the total Kw involved converting the gas usage in Therms to Kw.

Due to increases in gas costs in the first year after the project, our energy costs that year would have increased even more without doing this project, by about 15-20%, to about \$4400.

Other benefits from this project have included:

- Control of the heating costs throughout our building via the 3 programmable thermostats, virtually eliminating concerns of outside users failing to set back the thermostats after their use.
- No drafty areas in the building anymore--the insulating and sealing work eliminated these.
- The parish hall thermostat is now set at 62 degrees when not used, as compared to 60 degrees before the project. The worship space thermostat is now set at 60 degrees when not used, as compared to 55 degrees before the project. There are no longer areas that can get musty in the winter, due to having to set the thermostats so low or in a few places before that had no ducting to provide heating (sacristy and office).
- The worship space (and especially the narthex) has so much better natural light with the new windows, and the windows can even be opened easily too, if desired.
- The building overall stays cleaner with the forced air heat pump system, as compared to the old natural gas furnace system.
- The heat pump has also provided cooling when needed.

Finally, this project allowed St. Mark's to reduce its carbon footprint by using way less energy and converting most of its energy use to electricity, which comes mainly from water power instead of burning natural gas.

The project consisted of the following: (the cost of the entire project was about \$38,500)

- replacement of the 42 year old dual gas furnaces system with a new single split electric heat pump system, including full new and enhanced ductwork, and 3 zones for programming and controls*
- replacement of the old open gas log in the parish hall fireplace with a fully enclosed gas fireplace insert. (The gas fireplace insert is only used by church members when we are in the parish hall for small meetings or after church on Sundays.)*
- full insulation of the building*
- replacement of all of the old windows in the worship space*