

History of the City Hall Solar Project

Dave Strenski

It was a cold day in February of 2007 when Ypsilanti resident Dave Strenski was stopped on South Huron Street near the Michigan Ave stop light. As his mind wondered, he gazed at the back of Ypsilanti's City Hall and thought what a great location it would be for solar panels, south facing with no shading. With sketches in hand, he met with Mayor Paul Schreiber in March to ask him what he thought. The Mayor liked the idea, but with City Hall being in the Historic District, the first hurdle would be to get permission from the Ypsilanti Historic District Commission (HDC). Little did Dave know he just started a three project with lots of twist and turns?

The project gained momentum with each passing month. Many citizens of Ypsilanti support the idea and the HDC itself was in favor of renewable energies, but had to think about putting them on City Hall. This would be the first such project within the historic district and could set some precedents for future projects. After months of work the HDC created an Alternative Energy Systems fact sheet for historic buildings.

http://cityofypsilanti.com/boards/bd_historic/factsheets/Alternative%20Energy%20Systems%20Fact%20Sheet With the guidelines in place, official permission to put twelve solar panels on the back of City Hall was asked for. To get this permission a permit had to first be pulled which required City Council approval. Resolution 2007-175 was drafted and unanimously approved.

http://cityofypsilanti.com/bd_city-council/minutes/2007/08-14-07_approved_minutes

Working with the then DPW director Bill Bohlen, a permit was pulled and the project headed back to the HDC for permission. The HDC was still hesitant and asked for more information about how the panels would be attached to the brick wall, and required the project to get a structural engineer to "stamp" the design. Bill suggested Fitzpatrick Structural Engineering, P.C. and they gave a rough quote of \$3800 to review the design and "stamp" it.

This created a new project of raising money for this preliminary engineering study, knowing that the HDC could still reject the project. City Planner Richard Murphy created a website to ask for donations and the City created an account bucket to accept donations, which quickly raised \$1050 towards the engineering study.

Around this same time, Corinne Sikorski, the manager at the Ypsilanti Food Cooperative found a grant from the state for solar projects and suggested a combined proposal to add seven more solar panels to the Ypsilanti Food Cooperative and the twelve panels to the back of City Hall. Much to Corinne and Dave's surprise, a grant was awarded for \$35,980. http://SolarYpsi.org/documents/City_Hall/20080508-MDLEGGrantAward.pdf (page 4)

Now the project not only had the money for the engineering study, but for the project itself. A sample pull-test was performed to verify the integrity of the brick using epoxy anchors, with the positive results added to the design. http://SolarYpsi.org/documents/City_Hall/20080619-HiltiPullTestResults.pdf After

preparing RFQs for the study, Fitzpatrick was selected and they finished the engineering study quickly and under budget. They said the design was good but suggested a few modifications which were incorporated into the plan. http://SolarYpsi.org/documents/City_Hall/CityHallRack_sheet1.pdf, http://SolarYpsi.org/documents/City_Hall/CityHallRack_sheet2.pdf, http://SolarYpsi.org/documents/City_Hall/CityHallRack_sheet3.pdf

“Stamped” engineering study in hand and with lots of public support Dave presented the updated design to the HDC. After some conservation the project was approved 6 to 1.

http://cityofypsilanti.com/boards/bd_historic/minutes/2008/October%2014,%202008%20Minutes

With all the road blocks out of the way, more RFQs were written to purchase the equipment and volunteers organized. In the fall of 2009, working with DPW Director Stan Kirton, it all came together when Gary Turner leaded the crew to get the panels installed up on the back wall of City Hall. <http://SolarYpsi.org/index.php?siteDetails=cityhall> Electrician, Tim Neff, has wired the power into the building’s electrical system, and local solar contractor John Wakeman came by to inspect and test the system. Everything has been tested and approved. All the paperwork is done between the City of Ypsilanti and DTE Energy and we await the DTE field personal to come and officially turn our system on.

The last step will be to add the monitoring system so the public can watch City Hall’s power generation. When the solar panels were first installed at the Ypsilanti Food Cooperative, they worked with DTE Energy to get digital utility meters installed that have KYZ pulse output. A laptop was then connected to the utility meters and program written to read them remotely. Nicholas Estep and his professor Dr. William Sverdlik from Eastern Michigan University wrote a program to push the data from the laptop to a website hosted by HDL.com owned by local Ypsilanti resident Steve Pierce. <http://www.SolarYpsi.org> A program on this website gathers the data and presents it as a graph showing the power being consumed, generated by the solar panels, and any excess exported back to the utility grid. <http://SolarYpsi.org/index.php?siteDetails=foodcoop> Once the City Hall digital utility meters are installed, similar graphs will be online for City Hall.

This has been a great project with lot of community support. The Ypsilanti Food Cooperative has also won a second grant to add thirty solar panels to the roof of the River Street Bakery. That project is well on its way to being finished later this summer.

Once all these projects are finished, the plan is to sell all the renewable energy credits to DTE Energy and generate more money and make additional solar installations within the City.

<http://www.dteenergy.com/solar>

