

Mayor's Column for the April 18, 2012 Evansville Review

This Friday is the 10th Annual Evansville Earth Day Energy Fair, celebrating Evansville's Power of 10. Through the years, the Fair has grown from attendance of 400 to more than 2,000 people each of the past few Fairs. A segment of the 2010 Evansville episode of the Discover Wisconsin television program was dedicated to the Fair and local energy initiatives. As we all look for ways to stretch our household dollars, I encourage you to visit Fair exhibitors to discover environmentally-friendly ways to save energy dollars.

We are beginning to capture results of municipal energy initiatives that have been undertaken in our community. We will periodically be providing additional information as it becomes available.

In 2010 we received an Energy Efficiency and Conservation Block Grant in the amount of \$133,496. There was not a local matching component. The funds received were used to upgrade city street lights to LED technology and undertake a lighting upgrade to the Public Works facility. Energy savings directly impact our City budget.

In an August 2010 interview with the Janesville Gazette, we estimated that we would save about \$8,000 (80,000 kWh) from the street light upgrade and reduce carbon dioxide emissions by approximately 135,360 pounds annually. We estimated a 55% reduction in energy usage.

I am pleased to report that the data shows we were dead-on in our estimates. For 2011, the City saved 81,157.64 kWh of energy with the updated street lights, a 57.19% reduction in energy use. The 2011 dollar savings were \$8,115.76. The reduction in carbon emissions totaled 137,318.72 pounds.

The Public Works lighting upgrade was estimated to save 38,666 kWh annually, with a cost savings of \$3,866. The estimated reduction in energy usage was around 80%. Carbon emission reduction for a year was calculated to be 65,423 pounds.

We have six months of results for the Public Works lighting improvements, beginning October 1, 2011 through March 31, 2012. For six months, we have saved \$1,648 and reduced energy usage to the facility by 16,480 kWh. The carbon emission reduction for six months is 27,884.16 pounds and the reduction in energy use is 51%. Because the lighting project included solar light tubes (completely off the grid), the next six months of data will be greater because the hours of daylight will be much higher and the light will be much more direct. We will be providing an update when we have a year of data.

There has been interest in knowing the energy generation of our wind turbine. The wind turbine began generating power on June 30, 2010. The turbine was struck by lightning a few weeks later and was not in operation while parts were ordered and replaced. The first few months of data were impacted by periods when the turbine was shut down. The following data is for 18 months of generation, from October 1, 2010 through March 31, 2012. The turbine has generated 194,164 kWh (for the calendar year 2011, 121,060 kWh

were produced). The turbine has reduced carbon emissions by 328,525 pounds over the 18-month period.

The contracted energy production with WPPI Energy is 132,000 kWh annually. The expected turbine generation varies month to month—a surprise is that projected wind speeds are much lower during the summer months. For the 18 months calculated above, the contracted generation is 205,600 kWh. For the specified 18 months, the turbine has produced 94.4% of the expected power.

The last several months have been very windy—energy generation in four of the five past months has exceeded the month's projection. Month-by-month information on the wind turbine will be available at the Water & Light booth at the Energy Fair. Stop by to get details.

Unfortunately, the ability to get real-time turbine information on the City website has been problematic. The firewall protections at the Waste Water Treatment Plant preclude the easy access that was expected. Significant expense is likely to make real-time data available to the public. There has been cost/benefit discussion around the issue.

The city will be documenting savings from additional projects. In the last couple of weeks, a variable frequency drive pump was installed for well #3 on the west side of the city. Substantial savings can be achieved when pump speeds are responsive to usage.

A biomass burner (woodburner) was recently installed to provide heat to the Public Works garage. The project was identified as a two-fer. The burner generates needed heat while disposing of waste and diseased wood. Emerald ash borer-diseased wood needs to be burned and it is expected to arrive in our area in the near future; capturing the heat is efficient. There are three months of expense data available, from January 1 through March 31. Because of the moderate winter temperatures and the lower cost of natural gas, additional analysis is needed to determine the early savings. We will try to have it available at the Energy Fair.

The City is continuing to install energy-saving lighting around the community. Recently, six of the reinstalled historic-style street lights on East Main Street, from the former police station to County Highway M, were retrofitted with LED fixtures. Historic style lighting upgrades were not included in the Block Grant. Additional savings will be realized.

There has not been an attempt to quantify the energy savings from the updated waste water treatment plant. Any analysis of energy comparisons will be shared with the public.

Evansville is aware of the many opportunities for energy savings. The school district is undertaking efficiency upgrades to save costs, businesses are looking at ways to more efficiently use energy, and residents are interested in ways to save energy and the

environment. The City will continue to provide leadership, implementing the 25 x 25 plan for energy independence, and reporting our progress.

Community Announcements

Evansville's 10th Annual Earth Day Energy Fair celebrating the Power of 10 offers a free, family-friendly event this Friday evening, April 20, from 4:30 to 8:00 p.m. at the Fieldhouse, 320 Fair Street. Enjoy a show by the Super Scientific Circus, a variety of youth hands-on activities, and dozens of energy-focused exhibitors. Don't forget to redeem your coupon, included with your last Water & Light bill, for two free CFL bulbs at Dave's Ace Hardware.

The City of Evansville continues to sell terrace trees through Friday, April 20, at a cost of \$55 installed. Please contact City Hall from 7:30 a.m. until 4:30 p.m. daily for details and availability. Weather permitting, the trees will be planted the weekend of April 28th in celebration of Arbor Day on April 27.

Please mark your calendars for the third annual Art Crawl on Friday evening, April 27. Artists will be located throughout the downtown for a walkable, enjoyable experience. More than 20 artists in a variety of media will showcase their work and there will be a budding artist exhibition of our elementary and intermediate school students at Creekside Place.

Community Thanks

The City thanks Ron Carlsen and Rich Modaff for their years of service on the Park Board and Johanna Lema for serving as a Library Trustee. Citizen participation on city committees is essential to the betterment of our community.