

DEQ Goes “Green” in Bay City

The Department of Environmental Quality recently faced a dilemma when forced with the decision to relocate from its current district office in Bay City. The need was to somehow find the necessary increase in space while also cutting costs, two ideas that generally don't fit well together. That solution, however, was found in a very familiar place for the department: alternative and renewable energies.

A recent groundbreaking ceremony in Bay City saw that solution begin to become reality as construction began on a privately owned building that will soon become the DEQ's new district office and rely on the environment to keep the building running.

As the first governmental office building in Michigan to receive LEED (Leadership in Energy and Environmental Design) Platinum status, the DEQ Bay City District Office is being designed to produce an estimated 20 percent of its energy needs on site. The revolutionary production system combines solar and wind power at the same site for the first time in the United States, and the DEQ is excited about the system's potential.



The new DEQ office will be partially powered by wind power using a turbine such as this one.

Among other features, the power generation system will be studied for its return on investment value and its overall quality of operation. Another internal experiment will measure the energy consumption of LED lighting versus high-efficiency fluorescent bulbs to determine if the higher up-front cost of LED lights can be efficiently recovered through further energy savings over the already efficient fluorescent bulbs.

Spearheaded by Murray Wikol of Green LEEDer-ship, the Platinum project offers new challenges and opportunities for his design company. Wikol partnered with the DEQ in the past to create their Silver LEED Certified office in Macomb County with outstanding results. That facility, compared to similar sized buildings in the area, has consumed 39 percent less natural gas, 24 percent less electricity, and an astonishing 500 percent less water. At a Silver rating, those figures are extraordinary enough, but with the Bay City office standing two LEED ranks higher, officials are anticipating even further reductions in energy use, and ultimately energy costs.

The project isn't “green” due to energy savings alone, however, as the DEQ chose to construct the new building on a “Brownfield” site that has been left vacant and unused in Bay City due to contamination issues. The DEQ will remediate the contaminants on-site and has already removed several underground storage tanks, many of which had been leaking. Construction on this particular site will take this eyesore for the community and turn it back into productive use, and will provide new investment for Bay City.

While the primary goal in the design of the site was to make it as environmentally friendly as possible, the hope is that it will become an educational experience as well. The community will be able to see firsthand the benefits of environmentally safe practices and on-site renewable energy creation, and agreements have been made with two area colleges to conduct classroom work on-site to get students involved in these efforts. Students from Saginaw Valley State University will conduct the measurement and analysis of the LED lighting test while students from Delta College will be trained in the operation and maintenance of the alternative energy equipment. The eventual goal is to turn the complete upkeep of the systems to the students.

Beyond these new steps in environmental construction, the Bay City offices will utilize several standard environmental construction techniques. The building will have 28 skylights to optimize natural lighting and use low flow/zero flow toilets to reduce water use. In addition, the building will have a White Roof to reflect heat, a pressurized floor system to reduce energy consumption, and numerous other additions. The combination of such methods will set this project firmly at the top of environmental quality.

Construction of the building is currently underway, and the DEQ, the Department of Labor and Economic Growth who will share part of the facility, and the neighborhoods in the area are all eagerly awaiting the ribbon cutting. Once the doors are open, Michigan will have a tremendous example of “green” construction and how we can better protect the environment while also saving money on energy use.



DEQ Deputy Director Jim Sygo and building developer Murray Wikol join others to break ground on the new LEED Platinum certified DEQ Bay City District Office Building.