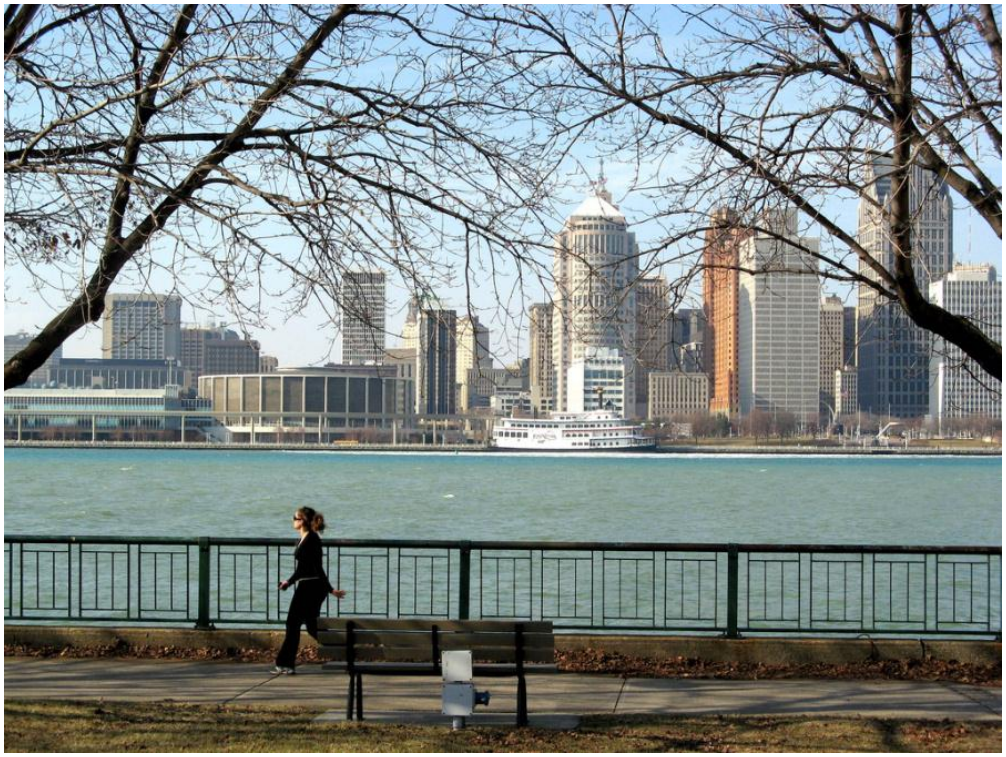
# COULD DETROIT DEVELOP A WIND POWER ECONOMY?



Building a wind turbine in Metro Detroit is a lot easier said than done. It's such a challenging proposition that it flips local conventional wisdom on its head. Blue-collar suburbs in Detroit's Downriver are integrating big alternative-energy projects into their everyday lives while college towns succumb to build-nothing-new NIMBYism.

For instance, Ann Arbor Public Schools officials nixed a plan to build a commercial wind turbine at Pioneer High School earlier this year.

They cited fears of potential maintenance issues, lack of energy production, and ice being thrown from the turbine blades. The decision leaves nearly $1 million in federal funds in limbo. Ann Arbor residents also spoke out about a solar farm built on the University of Michigan's campus.

Contrast that with Taylor which built its own wind turbine at the Heritage Park Petting Farm in 2009. The wind turbine, and some solar panels built near it, now provide 40 percent of the petting farm's power. Local residents named it Turby. And there are no reports of ice raining down on passersby. Southgate put up solar panels on its police station, library and field house. It's part of the city's effort to reduce its energy consumption by 25 percent by 2015. Not to mention a point of civic pride.

"You look around and there is an oil spill just about everyday," says Robert Kulick, president of CRESIT Energy, which installed Taylor's wind turbine and Southgate's solar panels. "But we can't put up a wind turbine because it might kill a bird or it might be ugly."

**Feasibility**

DTE Energy is building out $2 billion worth of renewable energy projects. They range from solar power to capturing landfill gasses, and they can be found across

Michigan. None generate nearly as much power as wind, which comprises 96 percent of the utility's renewable energy portfolio.

DTE Energy has wind turbines across Michigan, but its biggest concentration of wind farms are in the thumb of the Great Lakes State. Think farmland where fields stretch about as far as the eye can see. It's also one of the windiest areas of the state, which is the most decisive factor in where wind turbines are built. Southeastern Michigan's winds, not as strong.

It also helps that there fewer people and structures in the thumb. That means the wind turbines can be built higher, enabling them to harness stronger winds, without the fear of falling on anything but produce. But that doesn't mean building wind farms is a slam dunk outstate. Concerns about noise, flicker and safety are often points of contention.

"Typically the zoning regulations for that community reflect that community's appetite for that sort of project," says Dave Harwood, director of renewable energy for DTE Energy. He adds that the more hoops developers need to jump through to build an alternative energy project drives up its costs, which sometimes prompts them to abandon their projects or avoid a community altogether.

Hoops tend to multiply in urban areas. Think finding open spaces big enough that commercial grade wind turbines can go up without possibly falling on houses or

businesses. Sometimes it's just as simple as cities typically having more regulations than townships, and a higher concentration of people.

"As you approach a population center you will encounter more opinions, not necessarily negative ones," says Aaron Champion, project manager at theClean Energy Coalition. He agrees that local regulations often play a significant role in where alternative energy projects are allowed to alter the local landscape.

"Development of wind energy happens the most often in the states that have adopted a streamlined permitting approach," Champion says.

**Alternative Energy Free Zone**

Drive into Metro Airport and you're going to see wind turbines lining the road, often spinning at a steady pace. They're not your typical wind turbines with three blades a few hundred feet off the ground. These vertical-axis turbines have cylinder that spins for most of the 30 feet it's off the ground.

The Wayne County Airport Authority installed the Wind spire turbines, built by a Michigan company, on the north and west sides of the airport in 2010. Each turbine produces about 2,000 kilowatts of electricity annually. The whole lot of them produces about 40,000 kilowatts of electricity each year, saving the airport about $3,000 annually.

“It’s not much but it’s a nice offset,” says Ali Dib, director of infrastructure and engineering at Wayne County Airport Authority. He adds that they don’t produce enough electricity to justify the cost of installing them, but they do play a significant role in reducing the airports carbon footprint.

“That doesn’t mean they’re not valuable,” Dib says. “As the technology advances they will have a brighter future.”

The Wayne County Airport Authority is also in the process of installing a solar farm, which could add up to another five megawatts in electricity production, in the empty space near its runways. Dib plans to put the project out to bid this summer.

A big reason these projects are possible and can be executed in an accelerated fashion is because Dib only needs approval from the Wayne County Airport Authority’s board to make them happen. The authority has its own private distribution power system, which means it buys electricity in bulk from DTE Energy. The more the authority can produce the better for its bottom line.

Source: http://thisbigcity.net/could-detroit-develop-a-wind-power-economy/