

Submission to Ann Arbor News "Your World" column for 10-17-05:

Harnessing Michigan's wind energy resources

Last month Ann Arbor's Mayor Hieftje announced that the city will explore purchasing wind-generated energy, to help achieve a goal of "20% Green Energy" by 2015. Possibilities include a grant to fund a long-term test of wind speed at the former landfill on Platt Road.

But even if the level of wind energy at the landfill's high altitude "microclimate" is found to warrant the installation of turbines, that location will likely never supply a large portion of Ann Arbor's energy needs. That is because Ann Arbor, like most of the interior of our state, is not a particularly windy area.

To view online the recently completed map of Michigan's wind resources, google "Michigan wind resources map." You will see that most of the state rates a 1 or 2 on a seven-point wind speed scale. This equals a "poor" to "marginal" grade in terms of potential for generating wind energy. So although small scale applications may be appropriate here, wind farms on a large scale need to be sited elsewhere.

In contrast, many areas along the shores and within the Great Lakes rate a 5 to 6 on the scale, which signifies "excellent" to "outstanding" wind potential. Another location being looked at by investors is Michigan's thumb area, where the winds rate "fair."

To tap into this potential, Ann Arbor's Energy Commission may join a consortium of other cities which will pool resources to invest in the construction of new wind energy facilities, in return for locking in a reduced rate of energy once the turbines are up and running.

Investing in the production of wind energy in Michigan will be a much-needed move towards energy independence (currently Michigan imports almost all of the fossil fuel that we use). Wind energy can also provide a boost to our economy. A 2004 study by the Renewable Energy Policy Project, funded by the federal government, found Michigan to be fourth in the nation in terms of its potential for creating jobs from wind energy development. The study estimated that over 8,500 new positions could be created in Michigan.

And of course, the environmental benefits are enormous. Utilizing clean wind energy vs. fossil fuels for electricity production allows an average household to reduce its contribution of greenhouse gases the equivalent of planting over 1,000 trees, or driving 20,000 fewer miles in a car. There are concerns about bird collisions, but studies have shown that birds are far more likely to collide with communication towers, vehicles, or buildings, while wind turbines constitute less than 0.02% of the mortalities.

A wealth of wind energy information is available online, e.g. at the websites of the U.S. Department of Energy (www.eere.energy.gov) or the Union of Concerned Scientists (www.ucsusa.org). If you would like an estimate of your home or business's potential for harnessing wind energy, contact SUR Energy Systems (www.sur.biz) at 734-913-9944.

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