

Another Voice / *Wind power*

New technology will revolutionize energy industry

BY MARK DIEGELMAN

There has been much commentary recently about wind farms. A proposed windmill farm in Niagara and Orleans counties is drawing a lot of criticism over aesthetics, possible health effects and environmental and economic issues. And, as reported in The Buffalo News on Nov. 30, Rep. Chris Collins has introduced a bill in Congress to stop the wind farm planned by Apex Clean Energy, citing possible negative impacts on the Niagara Falls Air Reserve Station.

Despite the proven benefits of clean, renewable energy in mitigating, and eventually reversing, disastrous climate changes caused by burning of fossil fuels, political and community resistance is creating formidable obstacles to moving forward with har-

nessing the power of wind.

But now there is a new wind turbine design that is about to revolutionize the wind energy industry. This new turbine potentially overcomes virtually all obstacles impeding the implementation of giant three-blade windmills.

The new wind turbine doesn't rise hundreds of feet above ground level, which avoids the issues of potential adverse effects on the airspace of military bases, and the concerns of aesthetics and scenery obstruction. It is designed for a typical installed height of only 55 to 65 feet above ground level.

It also may be more than an order of magnitude more efficient than three-blade windmills in maximizing the generation of electricity from the winds. Three-blade windmills allow about 95 percent of the wind's energy

that passes through the plane of the blade's rotation to escape unutilized. The new turbine is designed to utilize almost 100 percent of the wind's energy that impacts its plane of rotation.

This new turbine has been designed to operate in a wide spectrum of wind speeds, from 8 to over 100 miles per hour, capturing a much larger range of available wind power generation. Current three-blade windmills cannot operate above wind speeds of about 30 miles per hour due to excessive shear stress on the very long blades.

The new wind turbine, named the Newtonian, is quiet, doesn't pose bird-kill issues and, most importantly, does not require government tax incentives to operate profitably.

Also, it can be deployed directly into the residential/commercial electric grid, eliminating long transmis-

sion lines with their attendant energy losses.

The Newtonian was designed and patented by a local entrepreneur, Kean Stimm of Kean Wind Turbines Inc. The company, located in Western New York, is about to commence production of this revolutionary turbine. After performance certification of the first commercial unit by Calspan Corp., demand for the turbine is expected to grow dramatically.

This turbine holds the promise of serving as the most efficient, and lowest cost, wind turbine ever designed and built. A major practical solution to global climate change is at hand, and the whole world stands to benefit from this remarkable development.

Mark Diegelman, of Hamburg, is a retired chemical engineer.