

Another Voice / *Electrical generation*
New technology makes wind and solar power practical

By Kean W. Stimm

The forward-thinking vision for New York State by Gov. Andrew Cuomo is hardly “green fantasy,” as suggested by Phil Kerpen in a recent Another Voice column, because enormous engineering breakthroughs for solar and wind power now make these energy sources practical and economical.

Ten years ago, Kerpen’s remarks would have been true. Today, however, new wind turbine technology makes the three-blade windmill an obsolete technology that requires huge government subsidies.

Today’s new solar panels are far more efficient at much lower cost. They are designed to go on roofs and do not require the square miles of land Kerpen suggests. In fact, they will actually help insulate building roofs from heat and cold. The world and Kerpen are apparently not aware of the great developments for renewable energy. Also, he and most of the world seem to be unaware that we have used up 70 percent of economically available fossil fuels. We *must* develop sources of renewable energy before fossil fuels are gone.

The new wind turbines are projected to be one-eighth the size and one-twentieth the cost of three-blade windmills for the same output. They require no government subsidies, make no audible noise and can be mounted on short, sturdy poles just above the treetops. They are mostly inconspicuous and connect directly to the low-voltage grid, and like solar panels require no high-voltage transmission lines.

Three-blade windmills require many square miles of land since they must be separated by at least a quarter-mile. Not so with new wind turbines that can be immediately adjacent to each other with no diminishment of power, and can be placed within clumps of trees using little land space.

Kerpen suggests that the cost of electricity will be much greater using the vision projected by Cuomo for New York State. Here again, Kerpen appears unaware that these new technologies assure far lower costs, since the fuel is free and not subject to manipulation.

The new technologies for wind and solar are dependent on investor owned electric utilities purchasing and owning turbines and solar cells. Their shareholders finance the purchase and there is no amortization costs. By this process, the cost of generating power drops to potentially 1/2-cent per kilowatt hour, compared to the typical 8 cents utilities currently pay for power they purchase from power plants or customers using net metering.

Together, wind and solar provide power 75 percent of the time. Electric storage, using the long-life and inexpensive Edison cells, provides instant power when wind and solar drop off. The more battery storage, the less is the need for small standby natural gas power plants placed in industrial areas connected to the grid without transmission lines.

Kean W. Stimm is a scientist/engineer and CEO of Kean Wind Turbines in Williamsville.