MAGLEV WIND TURBINE
THE WIND POWER REPLACEMENT

NO. 73

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Wind power is a proven and highly effective way to generate electricity. However, today's windmill-type generators are inefficient, expensive, maintenance-intense, hazardous to wildlife and require too much land. The design of the conventional windmill has evolved into the 21st century. However, the basic science remains as old as their 16th-century Dutch counterparts. Conventional horizontal-axis windmills use less than one percent of the available wind. As an analogy, a sailing vessel would never leave the dock if the sails and rigging were replaced with a large propeller attached to the mast. The wind must be captured, not deflected, to produce maximum power.

In December 2004, MWTT created a new paradigm for wind energy. Maglev Wind Turbines are oriented with a vertical axis. While horizontal-axis wind mills must be located perpendicular to the direction of the prevailing wind for efficiency, Maglev Wind Turbines harness the wind regardless of the prevailing wind direction.

Maglev technology is the most efficient means of transferring kinetic energy to generate electricity. The vertical-axis wind turbine platform floats on a magnetic cushion with the aid of permanent- magnet suspension and a companion linear synchronous motor. This technology eliminates nearly all friction and delivers maximum wind energy to the downstream linear generator.

MWTT's energy strategy is to provide affordable, long-term costs for electricity derived from environmentally sound, renewable energy sources. New MWTT power plants will produce approximately 1GWh each. The electricity generated will reduce local conventional power demand, while excess power will be sold off to local utilities.

KEYWORDS: MAGLEV, LEVITATION, POWER, TURBINE, WIND

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