GENIE: Where does the energy come from?* By Mark Goldes, MPI CEO

GENIE™ (Generating Electricity by Nondestructive Interference of Energy) as well as other magnetically powered systems that prove practical, are likely tapping the Zero Point Field (a previously uncommercialized source of energy). Such devices are often wrongly dismissed by scientists. Many remain unaware of the little recognized fact that a magnetic gradient is an untapped source of potential energy.

A magnetic gradient is surprisingly similar to the many other gradients that provide us with energy. Think of gravity in hydroelectric systems; the pressure gradient in water pipes; the voltage gradient in a wall socket and the thermal gradient in heat pumps and many conventional power plants.

Magnetic fields exhibit energy. They are in fact a potential source of energy. In that respect, they are entirely analogous to electric fields. However, scientists and others unfamiliar with the evidence, often dismiss this simple answer as unsatisfactory.

An excellent place for skeptics to start is the classic text entitled: *Physics of Magnetism*, by Soshin Chikazumi (Wiley, 1964). He mentions (p. 57) that "when the electron is traveling around the nucleus, the electron sees the nucleus as if the nucleus is traveling around the electron itself and feels the magnetic field".

This next question is where the spin of the proton originates. An article in Physics Today (Sept. 1995, p.24) states that "quark spins appear to account for 20-30%". Robert Jaffe, a professor of physics at MIT, concludes that the Dirac sea of virtual particle pairs is a strong candidate for the remainder. Based on experiment, Beck, Koch and Davis have stated that ZPE is also present in solid state devices.

Therefore we now know that the proton spins around the electron, affecting the magnetic moment. In *Lectures on Quantum Mechanics* (Benjamin-Cummings, 1969) Gordon Baym points out that the mass ratio m/M if the electron vs. the nucleus is about 1/10,000 or smaller. Therefore, the electrons move far more than the nuclei and the nucleus of the atom often exchanges energy with the electron.

Miloni in *The Quantum Vacuum* (Academic Press, 1964) states: "We now know that the vacuum field is in fact formally necessary for the stability of atoms in quantum theory" (p. 81). In the space of these few pages, Valone shows that every atom is deriving energy from the quantum vacuum, another name for the Zero Point field.

In quantum mechanics it is well known that the electron and the nucleus act as a coupled system of oscillators. Thus, it can be concluded that ZPE is the sustaining energy source for all energy states of the atom, including the electron's angular momentum. Since the macroscopic magnetic field of a permanent magnet is totally attributed to this characteristic of the electron, it can be said to be sustained by the quantum vacuum; the Zero Point Energy field.

In conclusion, as GENIE and other magnetic motors and generators prepare to enter the market, ZPE eliminates the mystery as to where the energy originates. These magnet-powered devices cannot plausibly be mistaken for *perpetuum mobiles.*

*This article has been adapted from a chapter in the book: ***Zero Point Energy: The Fuel of the Future***, by Thomas F. Valone, entitled: "Is Permanent Magnetism Connected with Zero Point Energy?" (pp. 200-205). (Integrity Research Institute, 2007). The paperback is available through Amazon.com.