

Z_{ero}-P_{oint} E_{nergy} C_{onverter}

To all the Children of Today and of the Future Ages yet to come!

It has been known for nearly a hundred years that so-called *Empty Space* is not really empty. If we remove **everything** that *can* be removed from a volume of space, *even removing all of the heat*, we are left with the Quantum Vacuum. The Quantum Vacuum is seething with Zero-Point Energy. Its Zero-Point Energy consists of invisible, highly-energetic particles of light that continuously appear then disappear. During their brief lifetimes, many of them push on ordinary matter with very great pressure.

The energy of the Light Particles of the Quantum Vacuum are available for our use, without limitations, throughout the entire Universe. NASA's Breakthrough Physics Propulsion Program concluded that the Quantum Vacuum might someday be used *as a practical source of energy! Someday is here; the future is now!* Z-PEC is a way for **anyone** to plug into this natural energy grid **at anytime at any place, as much as they want, and as often as they want, without paying any money to anyone, ever!!!**

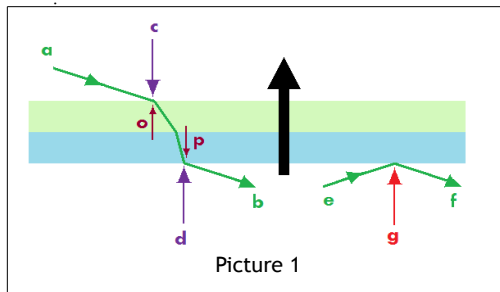
Z-PEC will *feel* like a strong magnet that is trying to pull itself out of your hand, *as though* there is another magnet nearby, but it doesn't need a separate magnet to push or to pull on it. This is **not** anti-gravity; nonetheless, Z-PEC will *seem to fall* in whatever direction it is pointing. It will feel like a heavy brick; however, depending on the direction in which it is pointed, you might have to hold this brick **down** to keep it from **falling-up**.

We do **not** need to **provide** any object or substance to push on Z-PEC, or to pull on it. We do not need **to supply** any energy. We do not have to supply **anything**, because already, *along with all other objects in the Universe*, Z-PEC is continuously showered with little objects that *already* have energy and momentum; these powerful little objects are the invisible light-particles of the Quantum Vacuum. Just like the Great Engineer faithfully gives us free Sunshine every day, so also has he freely given us the much-more intense Light of the Quantum Vacuum to shine continually, during the cloudiest day and on through the darkest night. These particles have been rebounding off of *all atoms everywhere*, since the Beginning. In a sense, Z-PEC is nothing new: When the particles of the Quantum Vacuum rebound off of the atoms that Z-PEC is made of, these Light-Particles are merely doing exactly what they have been doing to particles of matter ever since the Great Designer started setting the first particles into motion.

Already, the invisible particles of the Quantum Vacuum constantly push on all sides of typical objects just as hard as air pressure pushes, more than 101 kPa or one ton per square foot. This pressure is easily sufficient to turn generators, and replace all motors. We need not *ever* supply **any** fuel or energy, because these Light-Particles of the Quantum Vacuum are *continuously* delivering mechanical power when they rebound after colliding with Z-PEC, much like the rapidly moving particles that push on the pistons of an engine, on the wings of an airplane or on the expansion nozzle of a rocket. Vehicles will not need engines, motors with shafts, propellers, jets or rockets because Z-PEC will push directly on these vehicles, just as when we push a car with our hands. Vehicles will no longer need wheels, wings, rotors, floating-hulls or rockets to hold them up off of the ground. We will no longer need roads, bridges tunnels or waterways.

This is what is truly extraordinary about Z-PEC; it allows us to derive a **net** force from its random collisions with these light particles of the Quantum Vacuum. This *sounds-like* trying to harness the thermal motions of air particles; but even though Z-PEC is showered with equal numbers of these light particles on every side, as are air particles; unlike air particles, different already-known materials expel this random light-energy differently. These materials can be combined so that more of this energy is **expelled** from Z-PEC'S one side than from the other side. This creates thrust. We have been getting net forces from equal and opposite sources light for many years. A proper analysis of Nichols Radiometer and certain ordinary glare-proof lenses conclusively proves this point.

Green Arrow a represents light that is approaching the top surface of the green material from a very shallow angle. All of the forces, that are exerted as the light passes through the device from top to bottom, counteract each other: Purple arrows, c & d, indicate that the light that passes through the material exerts equal and opposite vertical forces when they enter and leave the device; both of these facts have been experimentally demonstrated by independent experimenters. Brown arrows **o** & **p** represent the forces that are exerted on the device by the bending of the light. We truly *know* that these forces are equal and opposite since the light is bent back to the original angle by the time it has passed all of the way through both materials.



Picture 1

Green arrow **e** represents light that approaches the bottom of the device from the same very shallow angle as before; but this time, the light **must** reflect from the bottom surface because the blue material is highly reflective AND because the light is approaching the blue material from a very shallow angle AND because there is no coating that could alter the angle of the incoming light.

Even though the downward-bound light is approaching the blue material from the same shallow angle as the upward bound light, it *cannot* reflect as much as the bottom surface because the green material allows the light to pass through it, instead of reflecting.

The green material also bends the light to a steeper, non-reflective angle. Because of its now-steeper, non-reflective angle, the light can now enter and pass through the top of the blue material without *being reflected*. Red arrow **g** indicates that the light pushes upward on the bottom of the blue surface as it reflects. This is the net propulsive force.

Already, the light that is reflecting off our faces approaches the backside of eyeglass lenses from a *shallow, therefore* highly-reflective angle, but a glare-proof coating bends the light so that it passes *through* the glass of the lens at a *now-steeper, therefore* less-reflective angle so this light can pass all of the way through the back of the lens *away* from our eyes instead of reflecting back into our eyes as glare. There is an excellent chance that we can adapt existing, highly-advanced optical technologies that already work with X-rays and VUV wavelengths to manipulate the far denser, more powerful wavelengths of the light of the Quantum Vacuum.