## Free Energy Need Not Be Limited to a Theoretical Odyssey!

Electrodynamics provides the theoretical basis for designing a circuit with overunity characteristics, namely: producing an *apparent* output greater than its input. This masquerade is provided by an infinite Quality Factor whose energy is consistent with its <u>dimensionless duration of bandwidth</u> resulting from the <u>torque-induced precession</u> of a negative power factor separating current from voltage by one-half cycle of oscillations, or  $180^{\circ}$  ( $\pi$  radians). Since this satisfies the passive sign convention's definition of the generation of power, and since this cannot also violate the Conservation of Energy's equivalency of energy consumption versus its production, it can only mean that Q Factor is the ultimate criteria for defining energy's existence – not time, nor input voltage.

The application of voltage ties energy throughput into a logical series of events in which sources of energy are considered to be the cause of its movement through space and time while "loads" and "appliances" are considered to be the beneficiaries who have the right to throw away energy in a non-productive pursuit of its enjoyment or its waste.

But an ultra-low input of micro-voltage (equivalent to the environmental background of trees and plants) has the potential of encouraging the growth of a Q Factor and avoid this logical fallacy by disassociating energy causation from energetic events reducing the significance of energetic sources (so-called, prime movers) into contrivances of *almost* no consequence. Sources of energy are rendered into catalysts which may spawn a very high Q Factor under the right circumstances without supplying all of the energy necessary for its expense by a load. And it is this high Q Factor which will perform all of the work required by an appliance – not energy.

It is trivial how much energy enters into a circuit if Q Factor can extend its use towards an infinite duration by reshaping its relation with time.

The electrical reactances of capacitive and inductive impedance have the potential of unlocking these temporal limitations – of Energy Conservation – if they are allowed to channel themselves through the reactionary force of torque-induced precession and distort electrical phase relation into a fragmentary opposition of current versus voltage, aka. negative watts.

And resistive impedance has the potential of synchronizing these disparate relations of electrical phase relation into a usable format of positive unity power factor.

This lossless condition of negative watts is composed of a pair of standing waves born of two parents: one parent wave of zero power factor which leads its current by its voltage with a 90° phase angle of separation while the other parent wave of similar power factor leads its voltage by its current by an equivalent displacement angle. Their resultant daughter wave of half a cycle of displaced current remains stationary and incapable of entropy. And resistive losses (in the following circuit example) occur due to periodic switching, either manually or by use of a spark gap or by some other method, will dissipate the buildup of reactive momentum which cannot help but accumulate. This momentum is regulated by a rate of acceleration governed by the composite frequencies of the daughter wave and the circuit's inter-relationships of capacitance and inductance plus whatever amplitude this wave has already accumulated inducing a logarithmic escalation if not periodically dissipated.

The acquisition of this escalatory tendency (of a very high Q Factor) is easy to construct with the most basic of circuit design parameters requiring a minimum of customized parts. Just off-the-shelf materials and a highly skilled solderer and/or welder to keep electrical resistances (of connecting joints) to a minimum except where ever resistance is beneficial. This beneficial gain is effortlessly achieved in the following circuit of one resistive load and one input from a sine wave generator...



Closeup...



Here is an example of negative watts...



Here is a closeup view of the peaks and troughs of each of those two crescendos, above...



These coils exhibit lots of amperage, but without any voltage...







Another example of negative watts...



Closeup...



No negative watts here, but half of a cycle out-of-phase with each other despite their proximity...



Closeup...



## Schematic...



Nodal voltages after 100 milli-seconds of simulated run-time...





Nodal voltages after 1 second...

This makes it obvious, to the casual observer, that we don't have to engage in the nuclear generation of power in order to boil water intended to rotate steam-driven turbines hooked to generators of electric power. Reactive power is capable of reusing (and recycling) a fixed, minuscule quantity of input voltage while satisfying a nearly infinite Q. This results in a distorted view of Energy Conservation since *time is not a conserved quantity* whenever the phase relations of current and voltage are shifted into opposition with each other resulting in standing waves of fractured energy.

"A <u>purely oscillatory system</u>, such as a bell that rings forever, has an infinite quality factor." – <u>Wikipedia</u>.

The Micro-Cap simulation file for this circuit, along with its screenshots plus a few variations and additional textual treatment of this subject, is zipped up here...

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