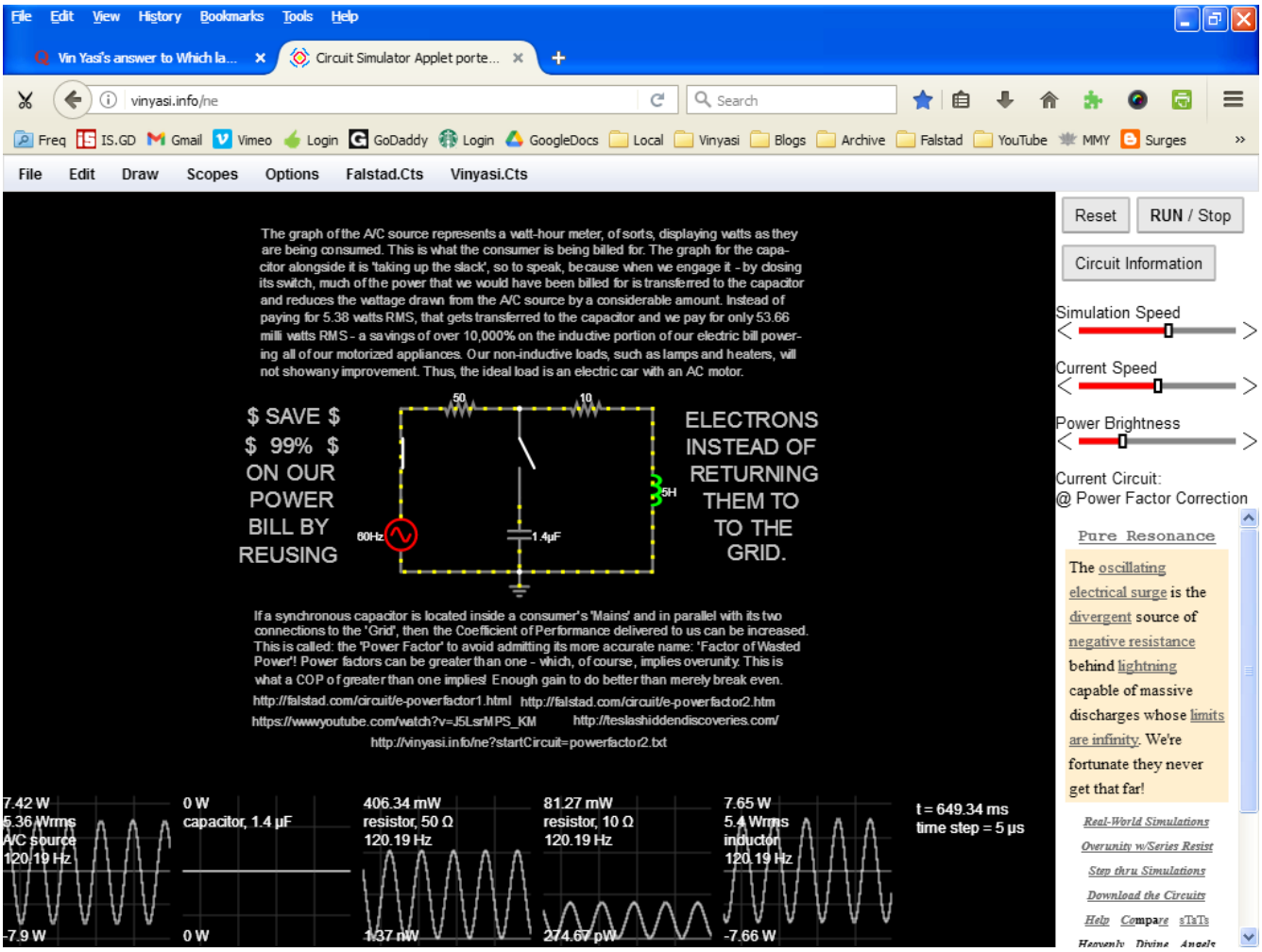
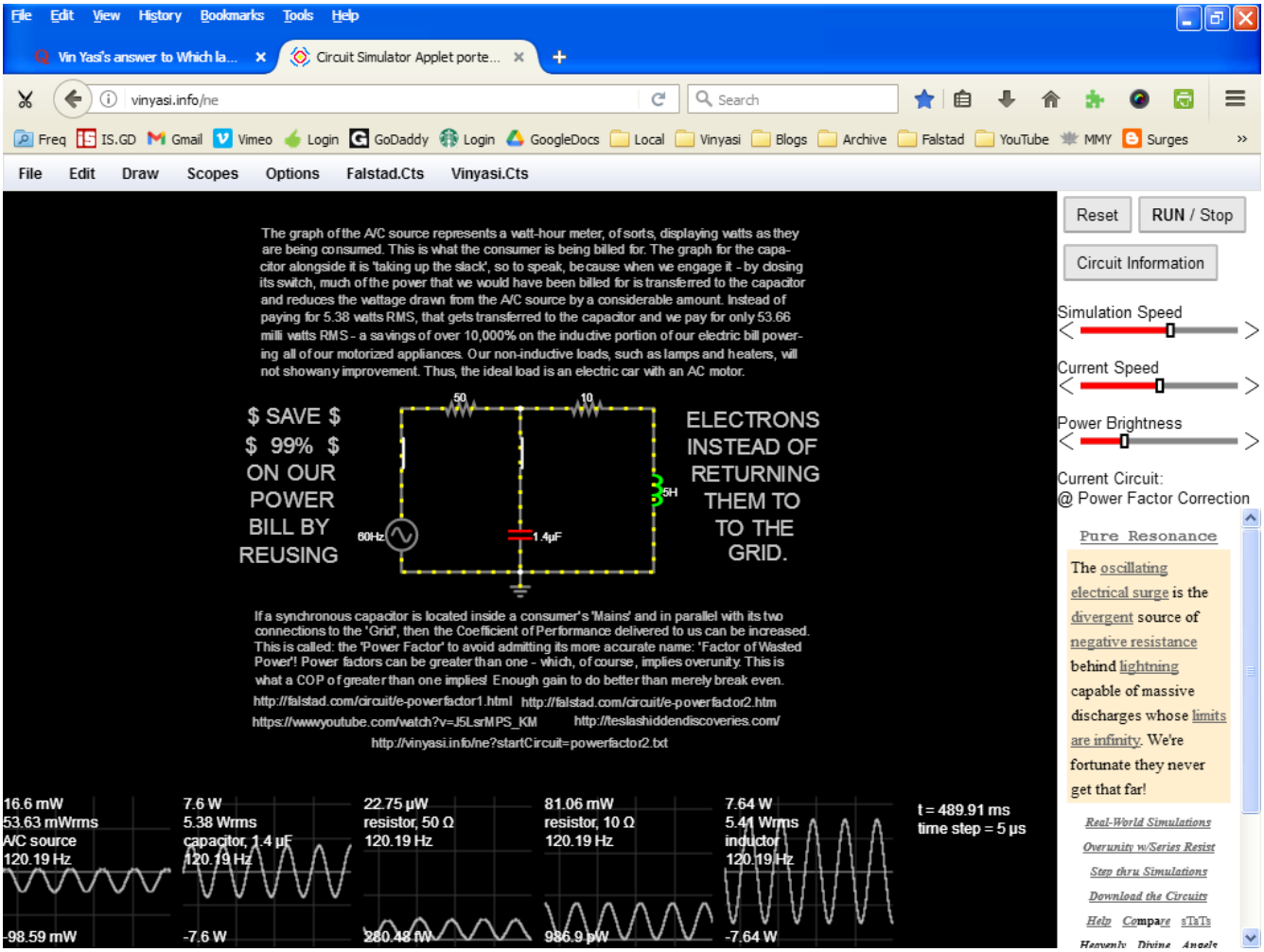
The Theory of Electrodynamic Behavior is a Temporal Phenomenon. It is not Limited to the Technicalities and Complications of its Spatial and Material Manifestation.



This is a perfect example of how we wastefully spend electrons and immediately return them to the grid after each usage.

Electricity is not similar to water. It is not a volume of mass waiting to be spent. It is an abstraction of the electrical behavior of mass, yet, transcends the material of mass which embodies this behavior.

Thus, an electron can be spent once, per unit of time, in the image – up above, or this same electron can be respent several times, per equivalent unit of time, in the image – below, to save money on our electric bill...



In other words, a portion of our usage of electrons can be shared with future units of time by reusing them in-house (through a capacitor in the image, above, which partially substitutes for the power grid) before sending them back to the power company who supplied them to us.

There is another way of saving on our “cost” of energy expenditure by reducing the wavelength of an oscillating wave within the context of electrical reactance.

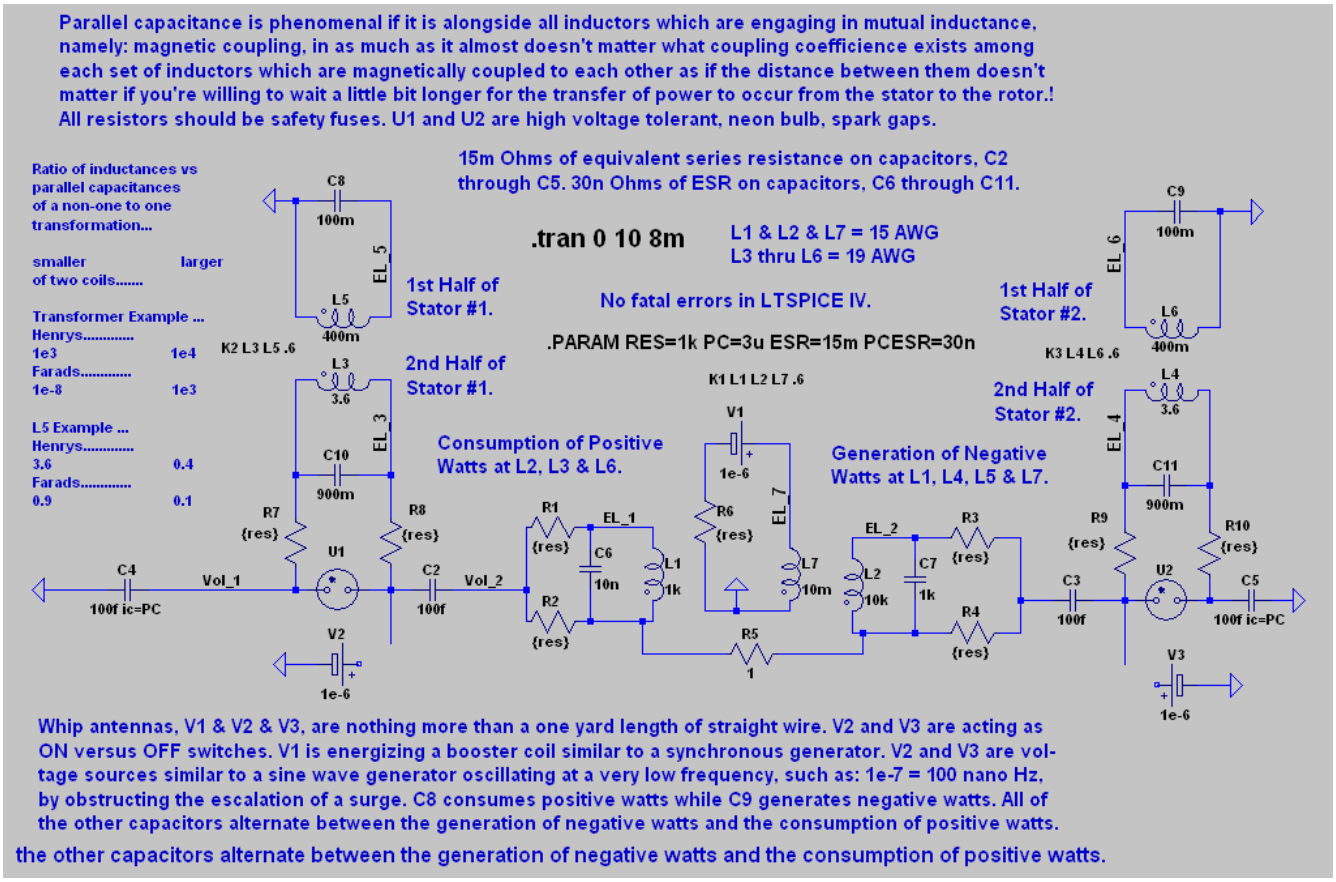
So, in the following example of the economical reuse of reactive power, it's not a question of describing this phenomenon as being the expenditure of electrons so much as it is the increase of the frequency of an oscillating wave which precedes the amplification of these waves due to their response to electrical reactance.

In the image, up above, it is a fixed frequency which regulates the outcome due to the constant presence of an A/C voltage source maintaining a constant signal carried by a constant voltage in order to keep all of waves in step with the frequency of the waves at the signal-source and, thus, disallow any

variation of the amplitude of wattage at the inductive load.

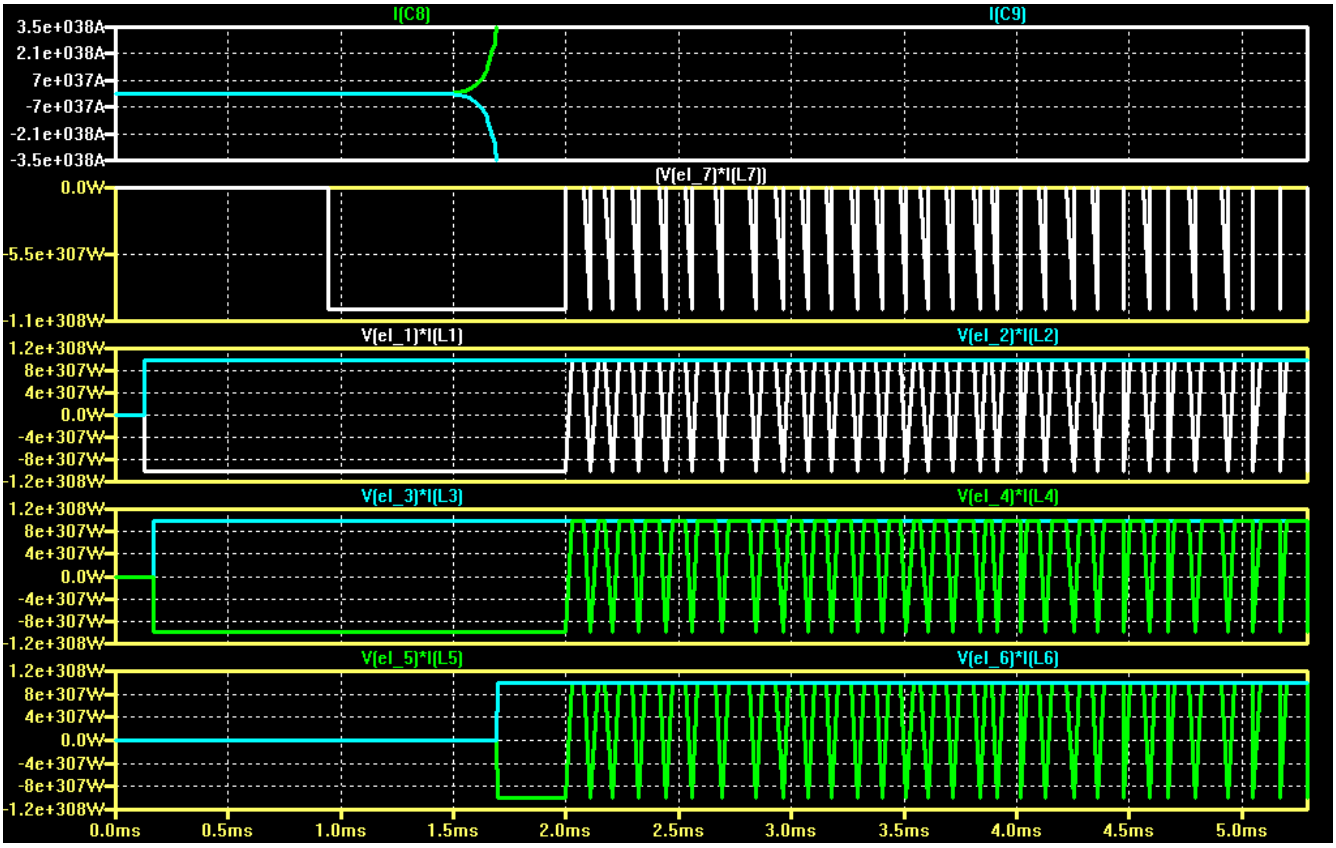
But a minuscule input of voltage, coming from an oscillating source, such as: a precharged capacitor (instead of coming from a voltage source), allows frequency to rise or fall and amplitude to follow suit...

The following screenshot is a schematic (in LTSPICE IV), simulated without fatal errors, using a few resistors of 1k Ohms, each, scattered in several places where it is advantageous to incorporate them into this design since their limited usage may enhance the wattage of output per unit of time...



the other capacitors alternate between the generation of negative watts and the consumption of positive watts.

Here is the wattage of output of its several coils plus the amperage of two of its capacitors...



It is injurious to our accuracy of perception to insist that energy equals mass times the speed of light (squared) and then proceed to fallaciously conclude that energy loosely equals mass when this is not true.

The nuclear force is from where the energy of fusion or fission arises from, not from the quantity of nuclear mass which exhibits this behavior. Just because we can multiply the nuclear force by the mass of nuclear material which is undergoing a nuclear process does not logically follow that nuclear mass is equivalent to nuclear force. We multiply them, together, to get their total product. Nuclear force and nuclear mass are not equivalent quantities.

Likewise, temperature does not arise from mass. Temperature arises from the excitation of mass which is not the same thing as the mass from which this excitation arises.

I say these things, because when we come to the electric force, its behavior is not related to the mass of its electron.

Electric force can be subdivided into the dual phenomena of voltage drop (resulting from simple resistance) and the electrical reactance of inductors and capacitors.

Voltage drop is defined by the physical resistance of its materials of construction while electrical reactance only suffers from the material limitations of the valence electrons of matter holding its atomic structure together as a solid circuit.

Voltage drop is a physical phenomenon while electrical reactances are a temporal phenomenon. This latter behavior is exhibited by the formulae for inductive and capacitive reactances...

$$Inductive\ Reactance = Frequency \times 2\pi \times Inductance$$

Two "Pi" (2π) is the unit, in radians, of the angular momentum of reactance occurring in time per unit of frequency (comprising one cycle of oscillation). The usage of two "Pi" within the formulae of electrical reactance is *not* restricted to its spatial manifestation. Its true that an oscillating wave has helical geometry as it travels through, or alongside of, a conductive medium (including the space immediately adjacent to material substances, such as: the surface of an insulated wire). But this helical geometry is merely an extension into space of its temporal nature existing as a singular unit of cycle.

Hence, space is an electrical extension of the temporal nature comprising electrical phenomena.

Electrical phenomena is not entirely dependent upon space. Its theoretical existence originates within the domain of time. Space adds materialistic resistance to the temporal nature of electrodynamics, in general, and to electrical reactance, in particular, making electrodynamics a little bit more complicated than its mere theoretical underpinnings (within the field of time) would suggest.

The consequence of looking at electrodynamic behavior within the context of these two subdivisions of the superset of time versus the subset of space (existing as an extension of time) is to separate, and distinguish, the distinctions between the generation of free energy via electrical reactance and its enhancement, or its impediments, lurking about within the field of physicality waiting for its materialization to either improve, or become worsened, by these physical complications which material resistance allows and encourages.

Inductance is a proportionality of geometrical design unrelated to its mass. It is a proportion of the number of turns of a piece of wire which is wrapped around a bobbin-shaped core versus the diameter of this core versus the depth of the layers of windings versus the length of these windings, etc.

Only resistance is affected by the mass of copper or rubber of a piece of wire. And, ...

Resistance is not a reactive force. Hence, it may or may not impede the expansion or contraction of reactive power which is potentially available within the valence electrons of material objects. In other words, resistance cannot *prohibit* electrical reactance from occurring. Nor can resistance authorize the

manifestation of electrical reactance. Instead, resistance is a controlling factor which may determine whether electrical reactance has an expansive influence upon the frequency and amplitude of an oscillating wave, or whether it has a contractive influence based on where, within a circuit, are resistances of significant sizes located.

Look closely at the schematic screenshot, up above.

Where are its one kilo Ohm resistors located? All other nodes between any two components (which do not possess these resistors) are assumed to possess a modest resistance of several milli Ohms resulting from solder joints or compressive connections.

$$Capacitive\,Reactance = \frac{1}{Frequency \times 2\pi \times Capacitance}$$

Capacitance is a proportionality of geometrical design unrelated to its mass. It is a proportion of the thickness of the dielectric which is sandwiched in between two conductive plates and the square area of these plates, etc.

Electric force is materially distributed across the valence electrons in orbit surrounding an atom. If the electrical energy carried by a piece of wire, for instance, should exceed the valence of charge which is available for its physical manifestation within the copper and rubber materials of its construction, then that wire will explode and its insulation will melt. But this material limitation does not invalidate its theoretical lack of energetic limitation, because the theory of electrical reactance is not restricted to a material basis for its origin.

Matter suffers from the result of electrical reactance. Matter does not spawn electrical reactance. Electrical reactance is, entirely, an abstraction whose theory does not suffer from material limitations. This is due to its exclusive existence as a temporal phenomenon. The electrical reactance formulae, up above, contain no variables of resistance in their formulations. Hence, mass is not a consideration which might authorize their reactive behavior. Resistance merely *modifies* the behavior of electrical reactance.

It is electrical reactance, not resistance, which can exceed – or not – the amplitude of energy coming from a “source” – and use resistance to its advantage, or to its disadvantage – by whatever fortuitous, or not so fortuitous, arrangement of inductors and capacitors may foster either outcome.

Likewise, mass times the speed of light (squared) does not equal energy, because mass is not the source for energy. It is the host for energetic behavior.

Nuclear energy comes from the behavior of an atomic nucleus, not from its nuclear mass.

Electrical energy comes from the behavior of the valence electrons of a material object, not from the mass of each electron.

These behaviors are theoretical abstractions existing outside the limitations of material existence.