DIY Electric Car Forums - View Single Post

Thread: Alternators, Free Energy, Perpetual Motion, Over Unity and all that...
View Single Post

#**2478**
09-08-2019, 07:51 AM

Junior Member

Join Date: Sep 2019

Posts: 4

⚠ **Re: Unlimited Mileage Electric Vehicles (Part 2)**

Using Reactance to Boost Power

Working along the line of the original research and development for hybrids known back in 2001 by its developer Alan Cocconi (the man behind the success of the General Motors EV-1 and silent partner to Elon Musk) and commissioned by Toyota and executed upon a 2001 RAV4EV using a motorcycle engine coupled to a generator and towed behind a first generation RAV4EV inside a mini-trailer...

http://www.tzev.com/2001_rxt-g_library.html

I propose this concept, simulated only in theory, concerning reactant power modification as an intermediate step towards range extension of an EV or hybrid....

We know reactance is unlimited from its formulae...

Capacitive Reactance = 1 divided by (2Pi x Frequency x Equivalent Series Resistance x Capacitance)

Inductive Reactance = 2Pi x Frequency x Series Resistance x Inductance

... in so far as it is oblivious to current and voltage while focusing exclusively upon its frequency, plus either: the series resistance of inductance, plus inductance, or else the equivalent series resistance of capacitance, plus capacitance. And we know it is useless unless corrected for its power factor. And we know we may invert the polarity of voltage to effect a condition of negative power factor whereby the frequency varies directly with amplitude unlike electrical energy of usable power factor (of zero degrees divergent phase relation between current and voltage) and whose amplitude varies inversely to its frequency. And we know that a simple resistive load, such as: a battery, or a resistor, or a spark gap, or a light bulb, will correct a deficient power factor and bring the components of electricity, namely: the electric and magnetic fields, back into synchronous phase relation. Given these facts, it is possible to devise a simple arrangement of electronic components to effect these known relations in

sequential steps, namely...

1. Invert voltage by 180 degrees separating voltage from current by one half cycle of an A/C cycle.
2. Amplify its frequency through a loosely coupled coil of 10% mutual inductance which will also serve as the primary loading coil in parallel to the actual load.
3. Make the actual load the battery pack of a plugin EV, or hybrid.

Here is the circuit simulated in Micro-Cap analog software along with a few more screenshots of its output and input attached, below.

PS. You may notice that Alan Cocconi calibrated his genset to output 345 volts to overwhelm the 288 volt battery pack and, thus, make charging possible at a 50 amp rate while cruising along at freeway speeds on level ground. This is why the twin motors of the RAV4EV from 1998 to 2003 require a voltage which is slightly elevated above that of a full battery pack of 24 NiMH modules so that, during regenerative mode, the twin motors will be capable of having a voltage slightly greater than that of the battery pack and make regenerative charging of the pack's batteries possible in the car's "B Gear". Yet, I've downgraded the output of my simulation to match whatever voltage it is displaying at any moment in time due to its uncanny ability to send a negative direction of current back into the batteries and recharge them regardless of their voltage. The only stipulation is that the tuning coil has to be constantly adjusted upwards to reduce the quantity of current sent into the battery pack as its voltage continues to rise. Or, perform the opposite compensation: adjust this tuning coil downwards if the battery pack should suddenly have a drop in its voltage, let's say: immediately after performing a steep drive up an incline.

PPS. The four coils: VC1, VC2, CC1, and CC2 must be mutually coupled at 99%. A 98% coupling coefficience won't do. This might be achievable by surrounding each copper strand of the windings of these four coils with iron windings - electrically connected in parallel to these copper windings - in order to capture the magnetic field of each copper strand and reclaim it. This is what I affectionately like to call: the Oliver Heaviside Solution to the Ferranti Effect. This latter effect was a prevalent notion among: Ferranti of Italy, and Dr Wildman Whitehouse of the United States, and the Royal Society of London, on how to go about resolving the problems they were having with sending a lossless signal across the trans-Atlantic Telegraph cable in the late 1800s. It was Heaviside who devised his "Telegraphers Equations" and deduced the problem was not to be solved by throwing massive quantities of voltage at the problem, but to boost the lagging magnetism along the entire length of the cable by wrapping the inner insulated copper core with iron wire or ribbon. This coaxial cable solution did the job before repeaters were invented in 1956. We like to think that more amp-hours inside the battery pack will solve all our range anxieties. That's nice if you like to use the brute force technique of Ferranti and the others who thought similarly.

Cheers!

Attached Thumbnails

Last edited by Oliver Heaviside; 09-08-2019 at 08:35 AM.