# HOW TO BUILD A ZPE RESEARCH LAB AT YOUR HOME

Version 2.5, 2004/10, first published on 2004/08

After the several trials and errors I have come to the conclusion come out with consolidated information on how to be more efficient researcher at home. To do anything you need proper tools and knowledge. This document is about to give as much as possible step-by-step.

The knowledge originates from Hector D Perez Torres (ARK Research). All he has taught so far has turned out to be practical. There are many replications all over the world already (some even replicated by university professors) and after making this document public we hope to see much more. I'll try to unite the theories of the great inventors like Hector, Bedini, Newman, Perrault, etc under the single principle.

The secret of the Over-Unity (OU) is here, it is very hard work to find one in the internet. This document contains the knowledge not written in the scientific books. Replicate, learn by doing, prove the postulates, and learn the basics of transformations as the OU is the transformation. It manifests in a resonance and amplifies known as stochastic-resonance phenomenon. It is just the beginning.

In order to massively replicate Hector's Rotoverter (RV), RV Alternator, Transverter (TV), Easer principle solid state pulsing systems, you'll need good electronics or better yet - a computer controlled system. First of all I started by building frequency generators and other kind of electronics, but then realized that things can be done computer controlled. The central part is a computer interface, so all the other parts like inverters, switchers, relays, SCRs can connect directly to that interface. Linux op-system is fairly stable and cycle exact, so it can be used to generate and measure signals in microseconds scale. You can drive inverters at variable pulse-length, run motors (RV) at different speeds (RPMs).

**To be successful in the research area**, one must "think big" and be open minded. It is a matter of tuning in order to manifest Radiant Energy. It is an art; it is like playing the piano. The more tools the better, invest into tools. Learn basics about resonance and electronics. Some tools you can *scavenge*, some you should buy, some you should do yourself. If you do not know ask others. Everyone near, is ready to help if you give them a positive vision!

## *Electronics and tools you are going to need*

- Build a (double) **capacitor bank** with switches (sample: 50,20,20,10,10,4.7,2,1,1,1,1 uF) – use only 450VAC rated oil capacitors and big wires. Used for changing between different capacitances to iterate the peak resonance. Becomes handy everywhere in LC resonance tests.

- Build a **variable induction coil** (15A, 16 turns 3" PVC pipe, tuned with metal core inside, add another 150 turns version too). For fine-tuning the resonance into the standing wave region.

- **2 channel scope**. Invaluable tool to observe the voltage and amperage phase shift. BTW, you can build a two channel scope using simple HV protection circuit, tuning potentiometers (opto-isolated if possible) and using a computer (laptop) with audio input. There exists software for on-screen online analysis. Useful as gold!

- Frequency generator 10Hz..300Hz, 100Hz..3000Hz, 1kHz..30kHz, …, preferably pulse width controlled, and 2 outputs for inverter driving

- High amp switching – power transistors, power Mosfets, or IGBT's and cooling ribs

- Some multi-meters and the AC ampere clamp-meter

- Electronic simulations: SIMetrix (very good). http://www.catena.uk.com/Pages/download.html

- PCB software: Circuit-Maker 2000 (if you're going to do something more complicated)

## Tools for the 'industrial automation', pulse tests, Easer, pulse motors, etc

A computer controlled parallel port interface (PPI) will make your life a hell lot of easier. I took the risk and it deserved a lot. Computer can generate frequencies, pulses, even voltages and control all the timings. You can control motor (RV) speeds, run Bedini/pulse motors, tune resonance conditions, control complicated switching sequence. This is a tested setup and recommended. **Note** that in the future, when we are experienced in transformation, we do not need computers, nor electro-sensitive components, because they are not secure. But for the first replication and proof of the concepts we must use ALL possibilities in order to accelerate the development!

- Pentium 333 minimum, Linux (Mandrake), 'industrial' software in C++ available and tested

- a simple parallel/printer port interface, optically insulated circuit (easy), fast optos is a must (PC847), min 4 outputs 100mA, 2 relays, 2 inputs, external supply 12..17VDC. Usually ready-made-kits are not so practical at all. PCB drawings of the newest version available! To tell you the secret, it makes the life much easier and work more fun.
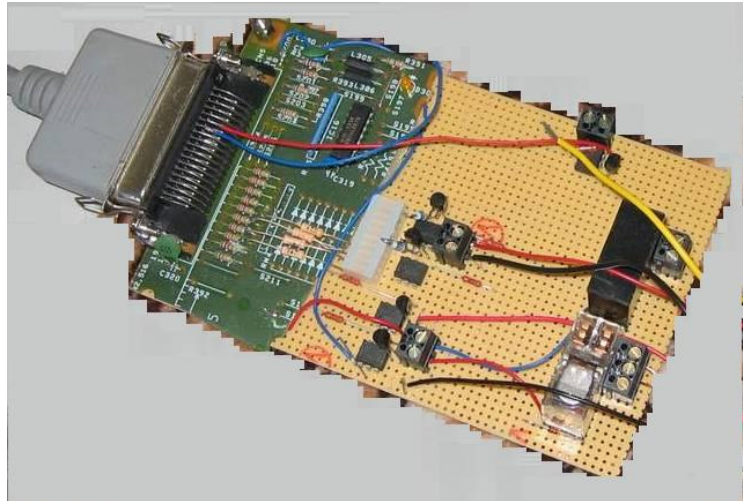


- … or even more advanced PPI, with ADC inputs or voltage to frequency (V2F) inputs, and even V2F outputs. Inputs are first calibrated used as a computer voltmeter, to be used for input and output charge comparisons in Easer tests, for example.

## Building the inverter
**Computer or frequency controlled inverter**

A basic inverter circuit using power MOSFETS and a protection circuit (connects to PPI or frequency generator). Using power MOSFETS it is a very practical circuit and can stand quite strong amperage. It is strongly recommended to use very big wires and lines for the 12V side.
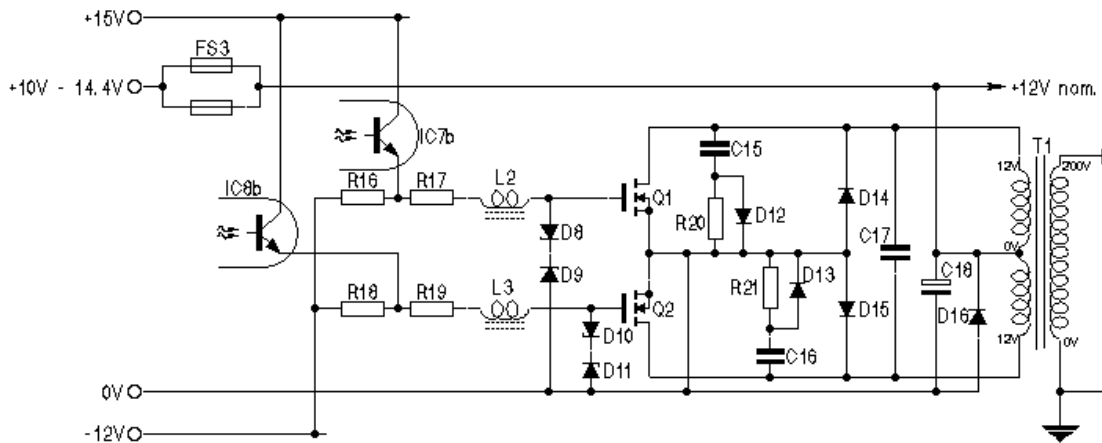


**Figure 1 Inverter circuit. Source: http://www.theverylastpageoftheinternet.com/forsale/plans/inverter/inverter.htm**

R17, R19 22 ohm
R16, R18 1.8k
R20,R21 100 ohm 1W
Q1,Q2 IRF3205
C15,C16 2.2uF 63V metallic polyester film
C17 (30uF oil) – omit from circuit!
C18 30000uF, D16 (5amp diode)
D8..D11 zeners 12V
D12,D13 1N4007; D14,D15 1N4007 (double)
It is recommended to use separate or external power supply for driving power FETs, to ensure the gates get enough voltage, the transition speeds are faster and they will not get hot.
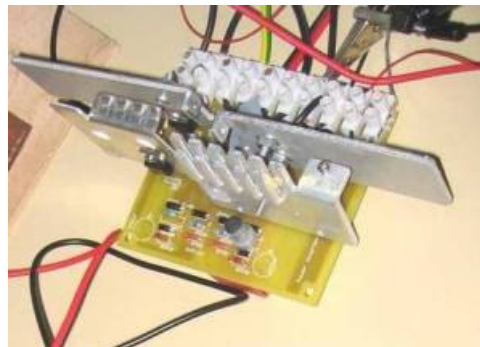


Use 300..1000W trafo for inverter, input 2x12V (with center tap) and output 1x120V (if you plan to wire yourself try following ratio #27 turns for 12V and #270 turns for 120V – quite practical)

Another way is to use the following circuit for the inverter. Or even using part of the 3PH pulse circuits for the resonance tests (page 8).
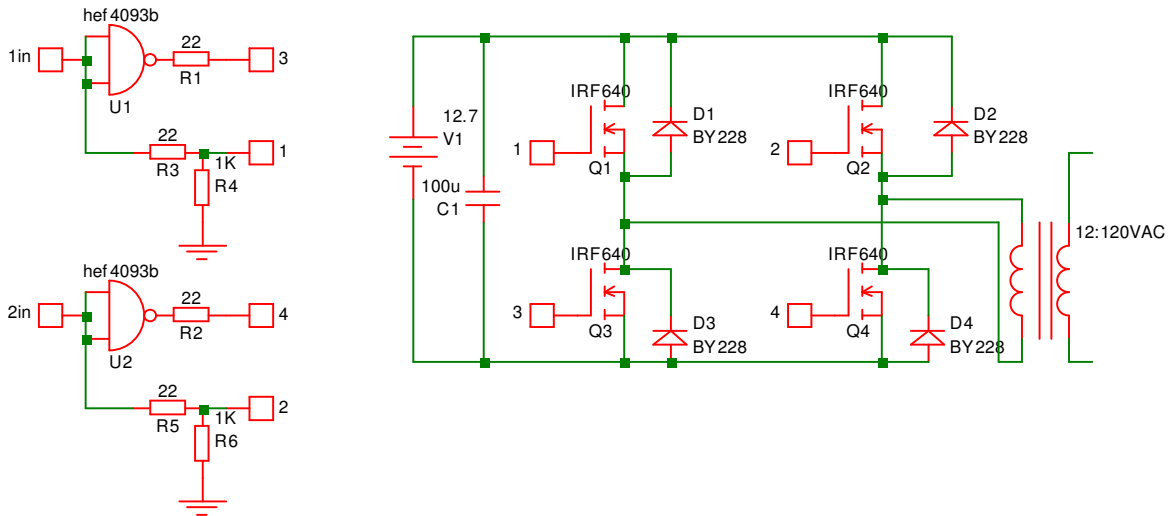
**Figure 2 Simple way to build the inverter for resonance tests. It uses bypass diodes to positively bias the collapsing EMF back to the capacitor/battery. To tune use variable pulse lengths. 4093 chip ensures that vertically FETs do not short circuit.**

## Hector's Positive Bias Inverter

This is the inverter recommended by ARK Research. It takes few current on idle, also it is a great tool for OU tests.



**Figure 3 Hector's positive bias inverter**

**Required**: Any trafo 100-1000VA, (primary 27, 27, secondary 270, feedback 12, 12 turns)

**Additional design notes**: You may add BD139 NPN transistors before 2N3055 power transistors for better performance.

**Working principle:**

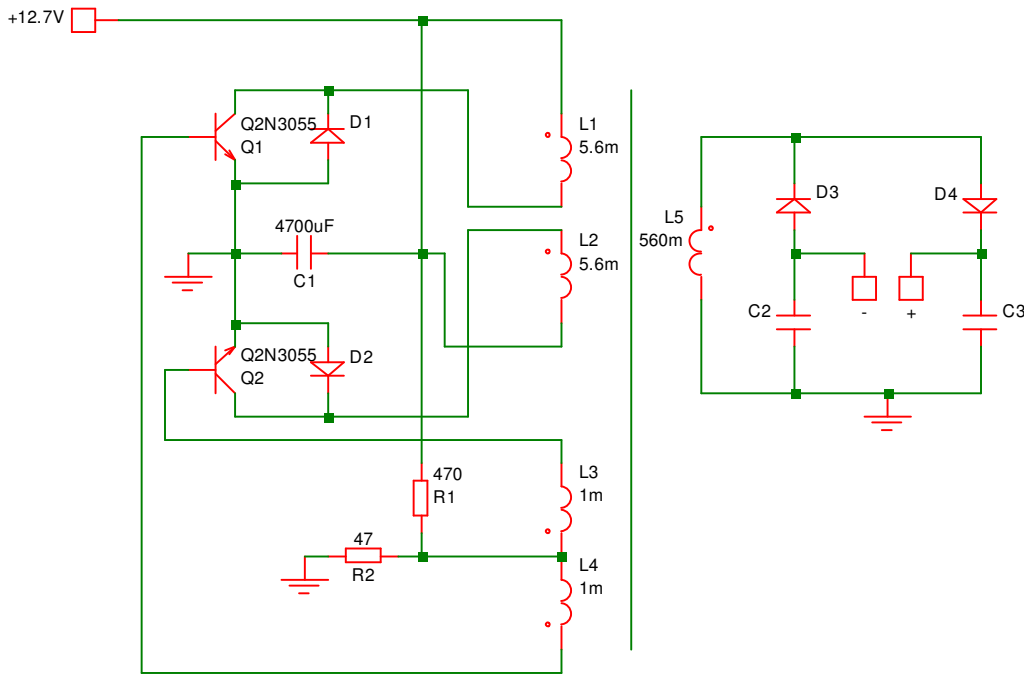As the transistor switches off, reflected collapsing EMF potential is redirected back to the battery across the diode. If core is working in RADIANT states, the recovered power will exceed the input and the system will recharge battery. The trafo's core's temperature will drop bellow ambient temperature (known as EASER LASE-ing effect). The battery becomes a variable within this effect system being OU within a specific set of parameters as battery charges the system detunes.

In the circuit there is shown the diode plug system to extract the power, but this is optional. There are some principles to test without even the secondary connected.

Some ideas to test:

- Always see the draw from the battery, using the ampermeter in series or a shunt.

- You may test it by holding magnet in hand while LC or the secondary disconnected. Usually without the secondary the circuit draws fewer amps, but it will resonate in the specific core frequency. The Radiant power vibrations can be felt with magnets holding these in hand near trafo.

- LC & RLC circuit on secondary, finding resonance capacitors

- Solid state battery charger: Finding the proper magneto-atomic resonance/saturation level, the system will turn Easer. There may be several harmonic frequencies, which are OU, of course choose the best. You can collect the power from the secondary by using a diode plug (so without detuning the system), switching the capacitor charge into the load, during the cycle the other is charging. It is possible using the Opto-SCR circuit.

- Solid state battery charger with a load: it is possible to turn this circuit a battery charger, finding the core's inner resonance point where the trafo will ring (Easer), using a small load in the secondary. You can tune the circuit by changing load or changing biasing resistor's, while trying to find the condition when the current from the battery reverses.

Some tuning considerations: change capacitors in LC circuit, rebuild the system to be external frequency and pulse width controlled, use variable coil in series to LC resonance.

## *Things to 'scavenge' or buy*

Trafos, 3PH trafos, neon sign transformers (NSTs, 10kV+), squirrel cage motors, permanent magnet (PM) motors, autotrafo (min 10A rated), magnets, old magnetrons (or magnets), oil capacitors, HV capacitors, power Mosfets, cool ribs, solid state relays, current relays, shunts, analog voltmeters, a lot of big wires

## *Projects*

Choose an appropriate project you like.

## Project: 'Bedini' pulse-motor

[Soon – principles are roughly the same]

## Project: Rotoverter (RV) principle, Rotoconversion, RV effect

It is usually meant that RV is two off the shelve squirrel cage motors connected, one acting as a RV prime mover and the second as a RV alternator.

RV is a great learning tool. You will learn phases, phasing, vectoring, input optimization to the load, rotary three phase transformation, resonance. Testing in "vitro" gives you an experience worth 100+ pages.

**Required**: a squirrel cage motor (over 2HP preferably to be more efficient, fan removed), capacitors for optimization. Optionally – autotrafo, capacitor bank, scope. The lesson here is to show that big motors can be run very efficiently on idle and the power draw can be optimized for different drag/load.

**RV principle**: You can run one squirrel cage motor alone (called a **prime mover**) using the following circuit. C1 is a start capacitor and C2 is for run. Run capacitor is optimized for the specific load (see amperes circulation, minimize). What is **unique** about it is that the motor is run ¼ of its nominal rating (running the motor in high impedance resonant mode).

We call it a **Rotoconversion Effect** were a receding rotating inductive load does not reflect loss to the source as it matches its synchronous speed like a surfer riding a wave. Magnetic amplification occurs as such system is taken to higher impedance such effect increases as does the power gain (1.618 as theoretical logarithmic gain occurs in the traveling wave component). As the magnet poles pull on the rotary wave field here is were the amplification occurs, in low impedance standard system this is referred as a **power factor correction phenomena**.

Normal squirrel cage motors usually cannot exceed the 95% efficiency due to the core losses. But using permanent magnet (see PM RV) cores the system can have efficiency over 100%.

This simple circuit could be revolutionary; it would be possible to use photovoltaic (solar) cells to run RV motors, boats, grinders, bicycles, solar co-generation. These systems use only very few energy during idle (10 times less than using 3PH nominal voltage). It would be possible to charge the battery through solar cell at the same time running.
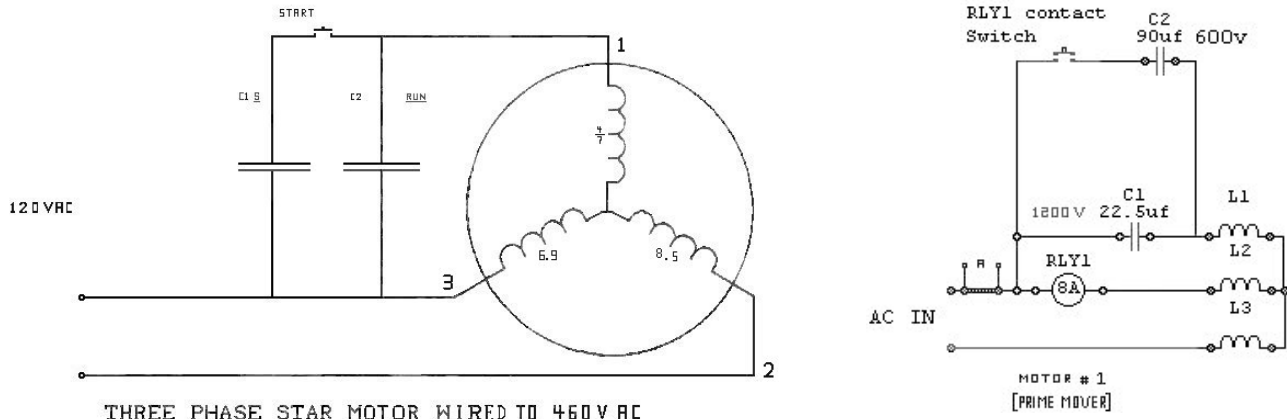


**Figure 4 Prime mover, starting manually or using a current relay, source: ARK**

In the next setup there are two motors connected –RV prime mover and RV alternator:

**Figure 5 RV setup, source: ARK**

Input 119.8V 0.8A in prime mover, and LC circulation 203V and 5.1A (using the tripleflux capacitor at alternator's side). It is 95.84W input, over 1700W virtual circulating power in LC. The most interesting transformation takes place in the alternator side. The normal science is blinded and cannot see that there is radiant flow in the LC. You can test it by holding magnet some inches above the motor casing and feel the vibrations. RE field can penetrate the motor metal casing, it has its own structure around the resonant motor, coil or trafo. It is possible to tap the energy (without reflecting back). One way is to tune the system to the exact standing wave and let the RE to gather towards the R node (in RLC setup). The R note must be amperage (and voltage) matched to the resonant pure LC amperage flow. Hard to tune! Another way is to use capacitor diode plug systems to collect the capacitor charge during blank intervals. Or using 3 identical step-down trafos for looping, several options.

**Pulse driving a PM RV (permanent magnet Rotoverter)**

It is also important to know, when you design a PM rotor RV that you can drive it with 120VDC pulses. The pulse length and the voltage determine the EASER condition, the collective EMF moves across the diodes back to the capacitor. During the OU operation, the draw of such a system will be very low (even negative). Check the Newman motor working principles; it is actually much the same. The oval rotary fields generated by the three phase rotating fields relative to permanent magnets are set at 90 deg, force vectors being 45% more effective than any Bedini, Newman, or Minato motor ever made.
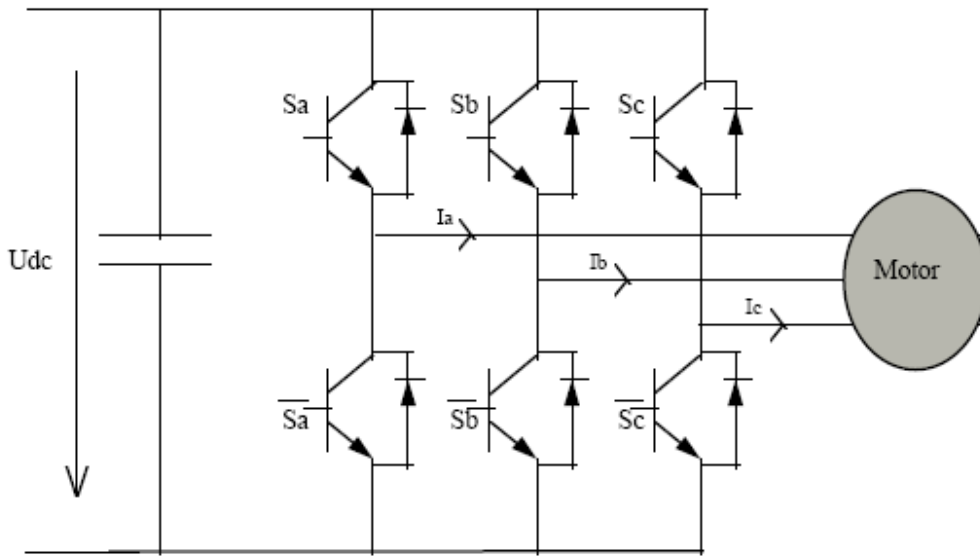
**Figure 6 Pulse driving circuit, suitable for driving motors with permanent magnet rotors**

## Project: Radiant Energy (RE) proof in RLC

A quote from Hector: "No scientist on Earth has ever imagined that the secret of ZPE can be written down using only three letters – RLC!"

A resonant system (RV alternator, or trafo), capacitor bank (C) for tuning resonance, 2 channel scope, variable coil (L) for fine-tuning the amperage node to the light bulb (R), where a capacitor will be on voltage node. It is the radiant energy that flows in a resonance in a RLC. In order to tap it into the R you need exact amperage node (standing wave) to be created at R. This is part of tuning and after you succeed with it your all the research will be very addictive for ever.
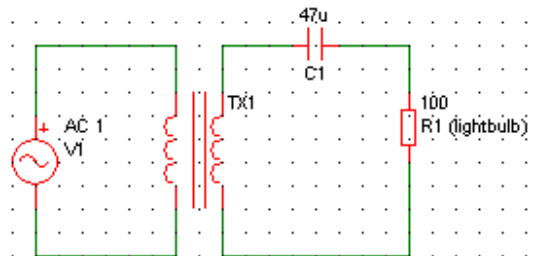


**Required**: A trafo (off the shelf or custom wired, microwaves trafo, neon sign transformer (NST) for Tesla coil experiments, or the ferro-resonant trafo (the best), etc), capacitor bank, or frequency controlled inverter, 2 channel scope, fine-tuning variable coil (in series, not shown in circuit).

**Principle**: Radiant Energy (RE) is present at the resonance. Finding the voltage resonance point in LC and then ampere matching the proper R in series to LC, we may stumble to anomaly where the Radiant Energy is radiated through the bulb. Note that, sometimes it is important to drive trafo into its saturation limits.

**Procedure**: Input primary 220V or what you have. You may use (variable frequency) inverter. Use LC in secondary and find voltage resonance on C, by optimizing C values (maximizing voltage). Measure amperage and voltage at resonance point. Add light bulb, which matches the resonance amperage and voltage (resonance voltage may exceed bulb's voltage little bit). As Hector says: find the resonance point, add a light bulb(s) to match the amperage, increase capacitance little bit to compensate the drift. By tuning the circuit with capacitance, variable L, and R, we must create a standing wave, where the amperage node appears on R. This is the procedure to make the RE appear on amperage node (voltage is zero and amperage max). So we would see the anomaly where the voltage drop on bulb is 10% of the nominal bulb's voltage, but the amperage flow is nominal and real. It is like manipulating the ether to flow and collecting it to the R node (the lense-effect as in optics). It is how E. Gray managed to light the light bulb under water – cold electricity, where amperage is real and voltage minimal.

Another way it to use Rotoverter – prime mover and resonance tuned alternator (RLC). It is easier to tune the resonance when the motors are run at 60 Hz AC than 50 Hz.

You can test the Radiant flow present in your system by holding a magnet near your system. You'll feel the magnet's vibrating in hand. Or you'll notice a computer monitor to have scanline errors or flickering.
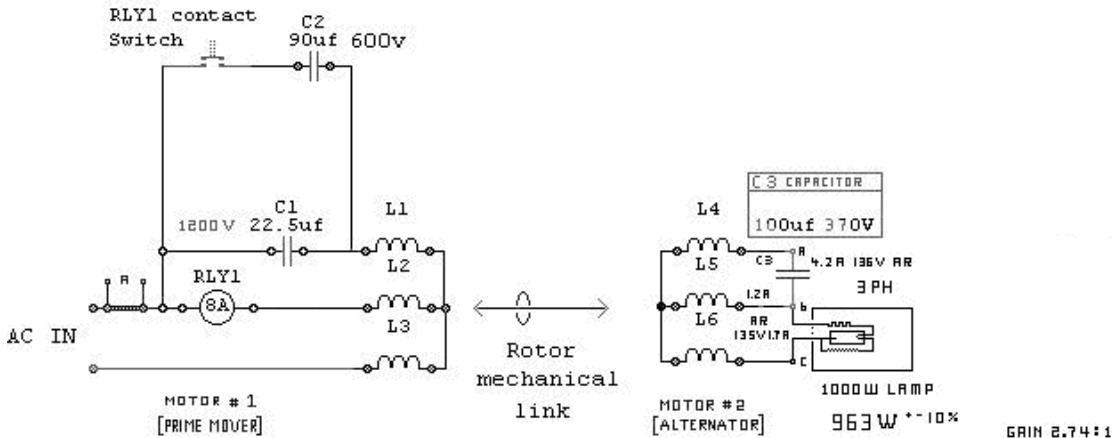


**Figure 7 RV Experiment, 1kW lightbulb is lit at near its nominal luminic value. Gain 2.74:1, source: ARK**

This is the Radiant Energy version of Tesla Coil. Some sources use the spark cap in a wrong place without understanding the real Radiant working principles, which was the actual meaning of Tesla.



**Figure 8 The Tesla Coil, notice the spark cap position**

# Project: EASER (charge pump)

**Required**: trafos (normal trafos, toroids, whatever), switching, computer controlled switching preferably, opto-coupled SCR switches. Idea here is to get more output in a resonant transform.



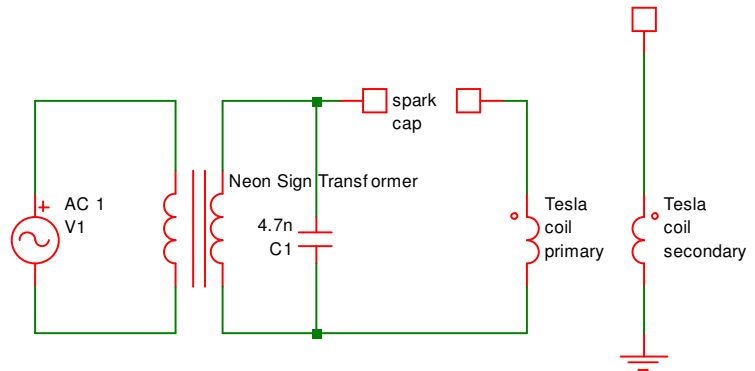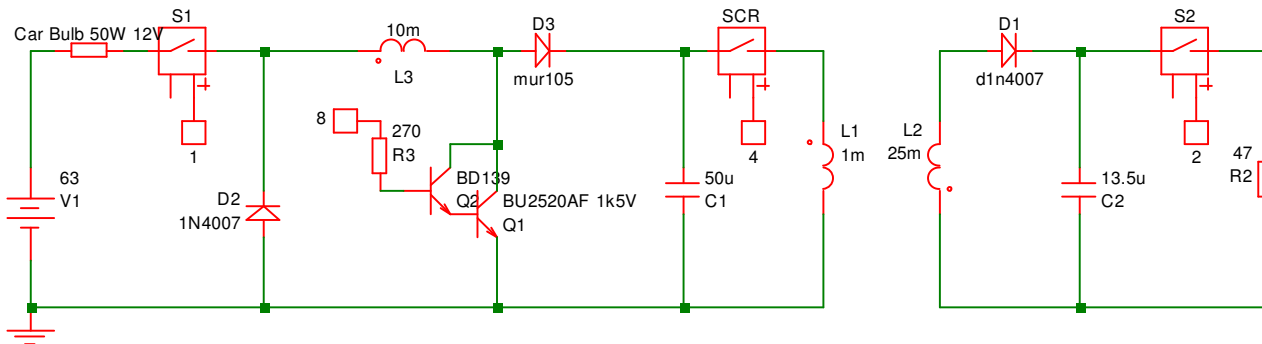**Principle**: This circuit is just describing the **Easer principle**. **EASER means Electromagnetic Laser**, where the power is transferred from the space-time tensor from coil to capacitor. The coil will cool down. Every phase can be computer controlled. Capacitor C1 is filled with charge (by applying the frequency for certain time to the gate 8), then discharged thought SCR into the trafo (gate 4). A magnetic collapse (see the coil direction) in trafo charges C2 (half resonant circuit). Alternatively, you can just pulse a trafo with some milliseconds with 12V, just enough to hit the (magneto-atomic) saturation point using different pulses. C2 size, pulse lengths, frequencies must be tuned in order to maximize gain. The optimal ratio for the trafo input to output wiring should be 1:5. It would be ideal to use primary winding turns as low as possible, using very big wires. There is a saturation break-point where the magic happens (note that sometimes not the magnetic saturation but magneto-atomic). The **most important** is to understand that the recovery must be shorter than input pulse length. Example: if you charge the trafo in 8ms, the LC and diode on the secondary should recover the charge in 5ms. It will cause the time differences. Pulse will charge the magnetic core and it determines the time compression in core's zero point fabric. The coil must cool down as it pumps extra voltage to C. In high Q resonant condition (magneto-atomic resonance) the power in C becomes OU as it raises to resonance Q point.
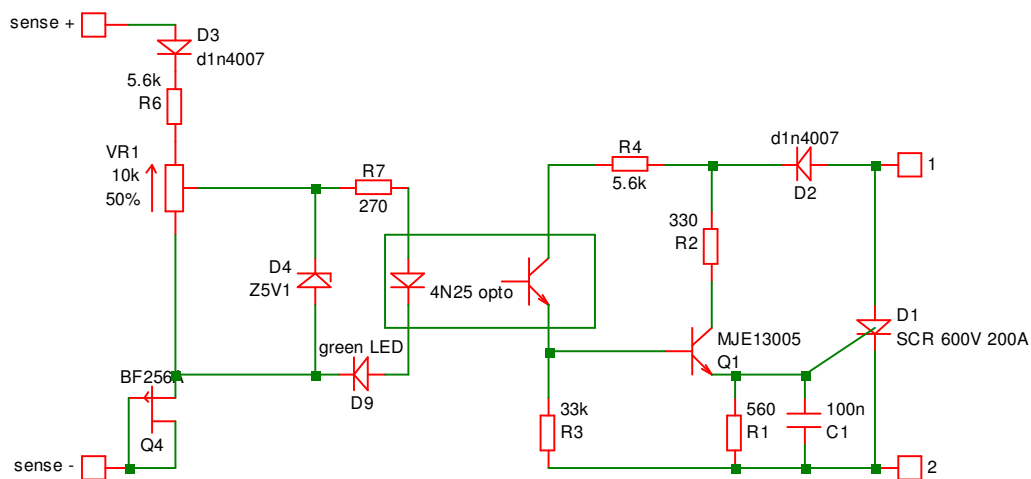


**Figure 9 Opto-SCR module circuit. It is made to meet the HV requirements, component values must be tested in vitro!**

Opto circuit's working principle: the "sense" side is tuned to specific trigger voltage. You can adjust the voltage looking at LEDs brightness. On trigger the SCR is opened. It is used for capacitor discharging into the coil during the other capacitor is charging in recovery circuits. The advantage of the SCR is that it turns off

automatically when the current is near zero (that is when capacitor is empty). Choose less sensitive and high amperage SCRs, modify circuit's resistors accordingly. BF256A is an optional component (not tested), limiting the current. These modules are very needed for several projects in the future, for discharging capacitors without reflecting to source.
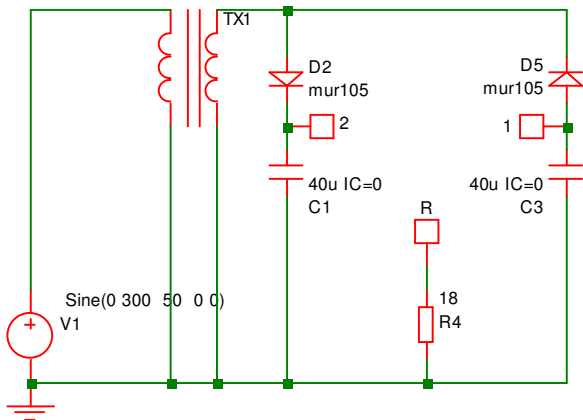


**Figure 10 Diode Plug circuit. Idea here is to discharge C-s during other is charging (non-reflecting to source)**

Diode plug circuit is must, when you want to get Radiant energy out of the system without reflecting to source (i.e. changing the overall circuit parameters). Discharging can be done optically (Opto-SCR circuit) or mechanically (roller commutators). As one capacitor charges, another is discharged. Each C value is chosen for best LC resonance match, and then used in diode plug circuit. This is powerful combination (Diode plug + Opto-SCR) and is **essential** to put MEG, MEMA, BEDINI, etc systems to work!
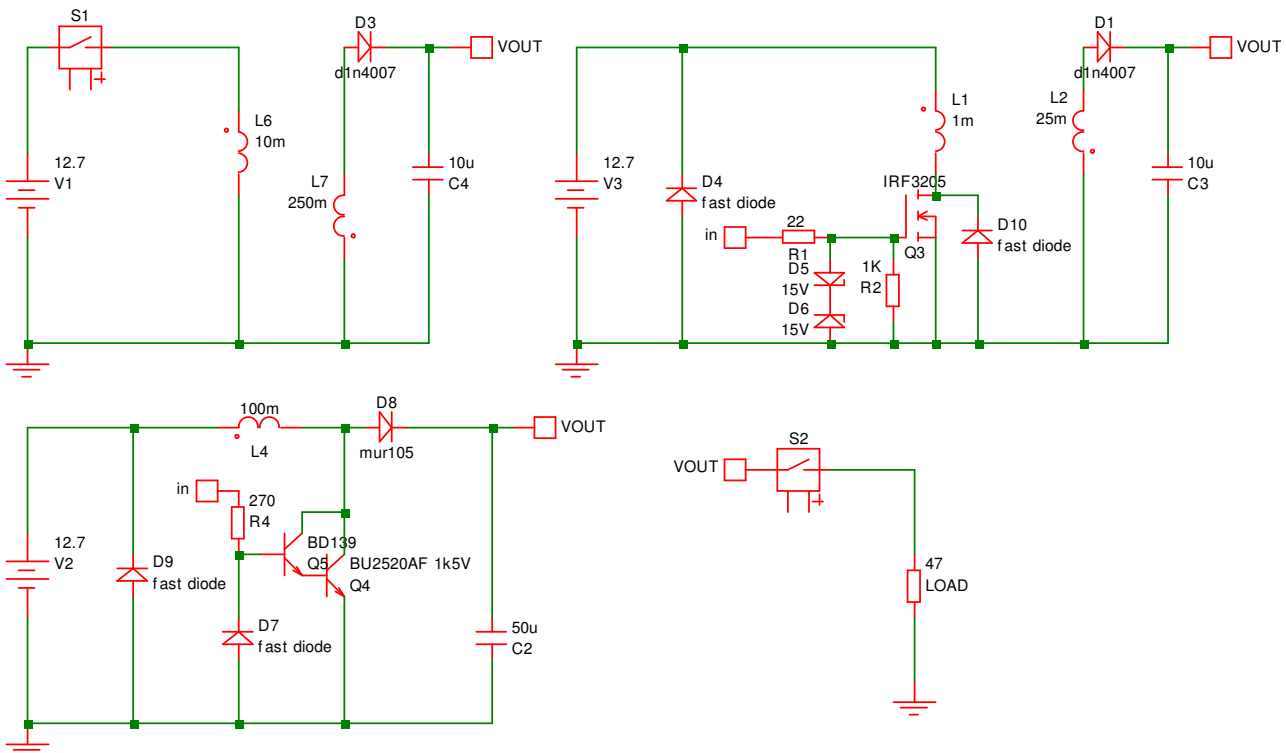


**Figure 11 Various L-pumps (Easers), all are based on the collapsing EMF principle**

As you can see, the LOAD is also behind the switch and connected only at the right time. As if the load would be connected all the time it would change the overall resonance parameters. By disconnecting the load from the resonance, and switching it on at the right moment for discharging the capacitor, we maintain the resonance parameters.

A more advanced Transverter circuit:
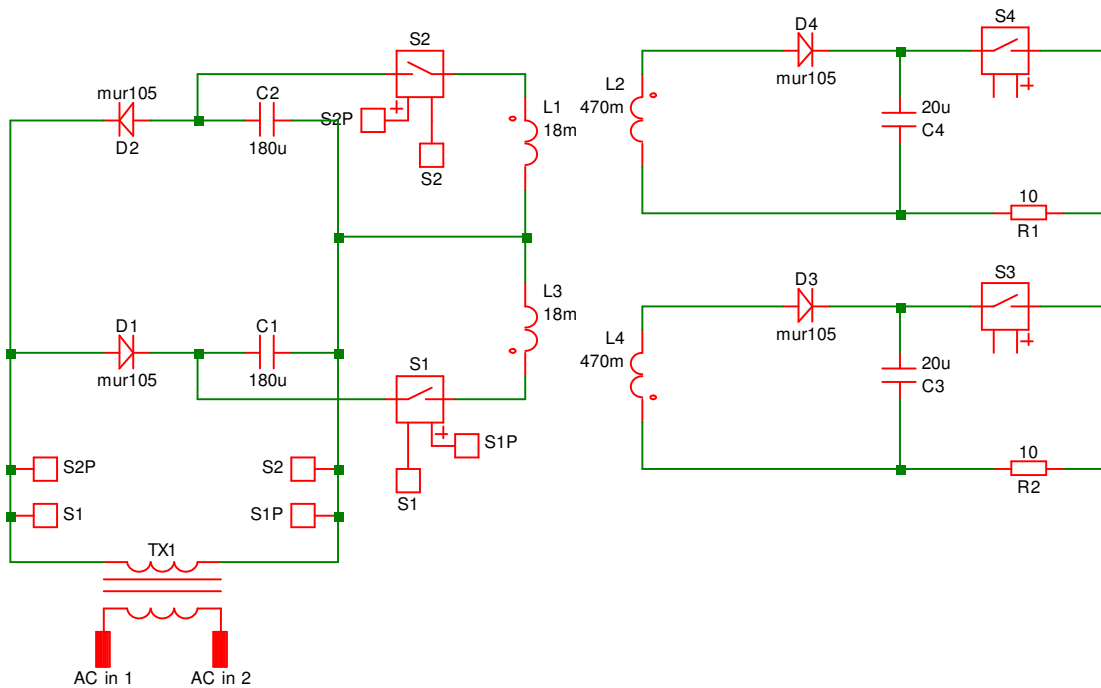


**Figure 12 Transverter "Yin/Yang" circuit, using 4x optical discharge switches that will turn on at blank interval**

During each cycle the capacitors are charged, and discharged at blank cycle to the trafo (2x), which amplifies the output. Note that the charge is collected by collapsing CEMF, not by the induction! Recommended amplification trafo is wired 1:5 for optimal output. Recommended practical capacitor ratio would be 2:1, but must be tuned. Note that switches on the circuits are SCR's, sometimes it is better to connect SCR between the coil and ground, not on top of the coil, to be more stable.

## Project: MEG, MEMA, EasyMEG (Easer principle)

**Required**: 3PH trafo, preferably computer controlled or frequency controlled feedback circuit

**Principle**: magneto-resonance, Easer (lasing), energy gain is collected after the magnetic collapse as the core is excited to Easer state.

**Notes**: You should assume that the battery is a long cycle capacitor. If it charges, the system detunes. You may use a large capacitor bank instead of battery for Easer/Bedini like technologies.

MEMA – magnetless MEG, Magnetless Electro-Magnetic Amplifier.

You can build MEMA from a simple 3 phase trafo, applying DC for the centre.

Hint: You can obtain DC from LC resonance through full wave rectifying bridge. It is an aspect of tuning.

The EasyMEG circuit will charge the capacitor if the resonance parameters are met.

Again – key to overunity is using appropriate pulse lengths.

# EasyMEG

by Dipl. Ing. Stefan Hartmann  harti@harti.com
copyright 2002 by www.overunity.com
released 28th of Sept. 2002

based on the too complicated
MEG by Steven Sullivan
(omnidyne@hotmail.com)
free for noncommercial personal use
all commercial use must aquire a license
from the author. Use it at your own risk,
I take no responsibility for wrong use !

Good Karma:
The last shirt has no pockets !
50 % of the license MUST be
donated to charity !

## principle circuit diagram:
(corrected version with right coil connections)
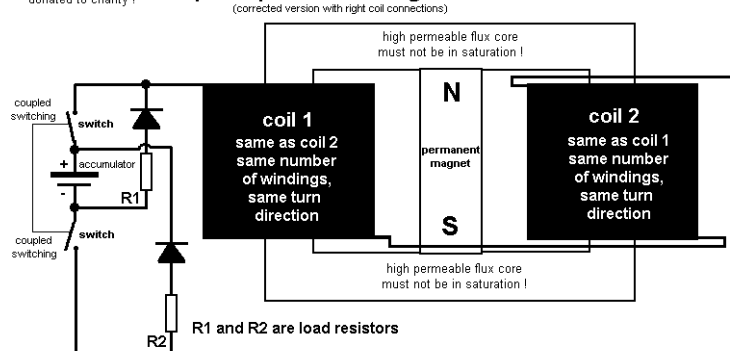


**Working principle:**
Both switches must be toggled fast ON and OFF.
This could also be done by electronic switching.
The flux from the permanent magnet is divided equally into each core leg,
when the 2 switches are OFF.
When both switches are toggled ON, the magnetic fields from the coils
pushes the permanent magnet flux from the left core leg into the right core leg,
so all  permanent magnet flux is flowing in the right core leg only.
Now when the switches are switched OFF the flux from the right core leg tries
to balance again back to equilibrium state.
As the coils are now connected  via the diodes and  the 2 load resistors R1 and R2
in the right direction of the Back EMF Voltage,  the equilibrium flux change
drives huge energy back to the accumulator and recharges it.

**Figure 13 EasyMEG, source: www.overunity.com**

# Project: RV, resonance, OU and LOOPING

**Required**: RV setup (2 connected RVs), 3x equal simple trafos, inverter 12V to 120V 1000W, capacitor bank

**Principle**: see the circuit and comments

ARK RESEARCH    2002

EXPERIMENT ON MAGNETIC ROTO AMPLIFICATION

Starting current > 9.0 A
running voltage 120.0 V
running current   3.00 A
          PT 360.0  w

RLY1 contact
Switch          C2
                90uf 600v

C1
1200V 22.5uf          L1
                      L2
S        R      RLY1   L3
         (8A)
AC IN 120 V

MOTOR #1
[PRIME MOVER]

Rotor
mechanical
link

C3 CAPACITORS
TRIPLE FLUX WYE          DIODES

L1
L2        .7mF   "7"mF
          370V   370V
L3

MOTOR #2
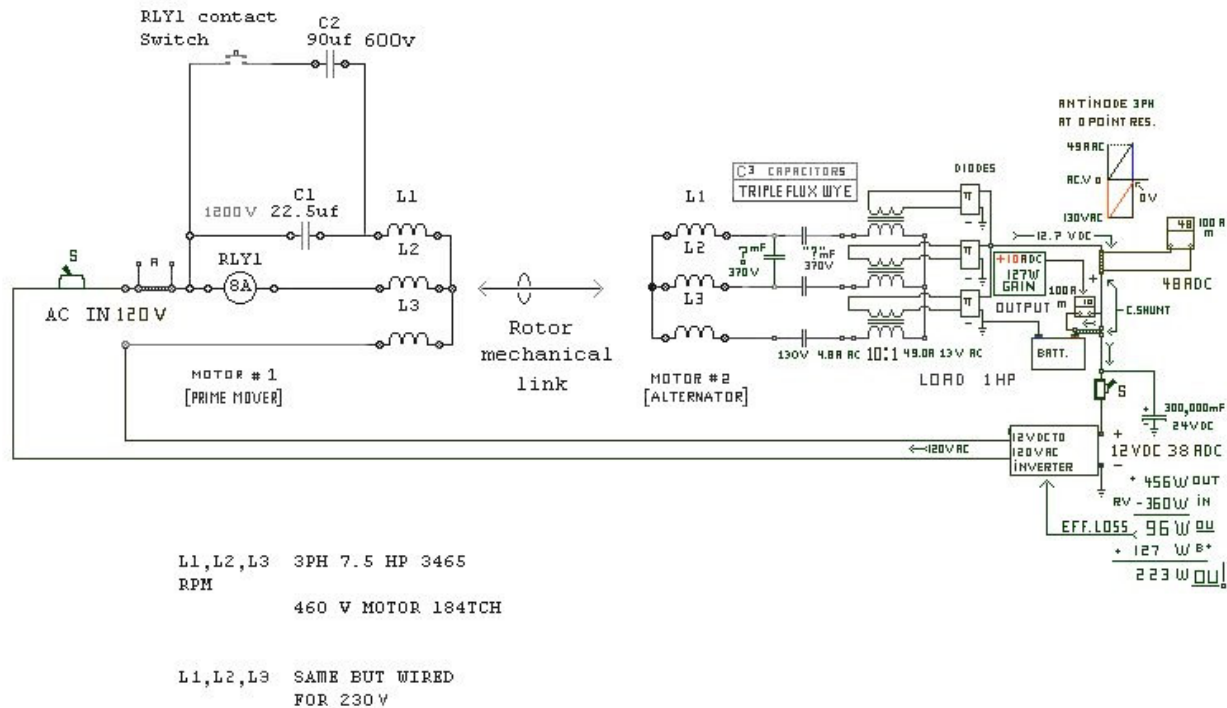[ALTERNATOR]          130V 4.8A AC 10:1 49.0A 13V AC

LOAD 1HP

ANTiNODE 3PH
AT 0 POiNT RES.
49 A AC
AC.V 0        0V
130VAC
>-12.7 VDC
+10 ADC
127W
GAIN  100A
OUTPUT m
BATT.

48  100 A
         m
48 ADC

C.SHUNT

12VDC TO
120VAC
INVERTER
←120V AC

300,000mF
24VDC
12 VDC 38 ADC

+ 456W OUT
RV -360 W iN
EFF.LOSS  96 W OU
+ 127 W B+
223 W OU!

L1,L2,L3  3PH 7.5 HP 3465
RPM
          460 V MOTOR 184TCH

L1,L2,L3  SAME BUT WIRED
          FOR 230 V

THERMAL & MECHANICAL LOSS WAS NOT CALCULATED

**Figure 14 Looped Rotoverter, source: ARK,**
**http://www.theverylastpageoftheinternet.com/ElectromagneticDev/arkresearch/rotoverter.htm**

A 12V car battery initiates the system, it provides power to a 12VDC - 120VAC 1200W AC modified sine-wave inverter (efficiency 94%). This powers the ROTOVERTER (rotary-converter) main prime mover motor. A 7.5 HP 3PH 230/460VAC 3465 rpm US motor windings in WYE, wired at 460VAC shown as L1, L2, L3. Rotoverter Alternator is an identical motor, but wired for 230VAC, linked face to face with a motor shaft coupling to prime mover. In Alternator L1, L2, L3 are connected to 3 capacitors coupled to 3 transformers, an extra capacitor is placed in any A, B, C phase as to provide rotor squirrel cage with inductive rotating field.

A rotating magnetic field is created loaded by the battery resistance and the inverter load, the system is tuned to resonance providing a standing wave were the current node input to the battery exceeds the LOAD demand of the inverter recharging the system. The System Energy is maintained by the energy of the rotating squirrel cage in regressive reverse induction, requiring energy only to regain a percentage of the energy loss component from the resonant system acting as negative resistor.

In testing, battery changes resistance as recharging occurs this provokes system to detune from resonant to non-resonant modes drifting from OU to non-OU transform modes. Tendency is to dry out battery as this are not designed to work in cross current vectors variations.

Solutions: Use separated alternating battery banks and increase inverter input operation voltage (design it for 120VDC input) eliminating the transformers.

System gain comes from stochastic resonance and ZPE as the magnetic latching occurs within the core-wire LCR components of the motor and its capacitor driven rotary 3PH fields, in resonance, the time-energy decay is the only energy you require to replenish at to maintain it.

A resonant high Q circuit tends to have a fixed decay, this being as rule of thumb .372 (37.2 %) per full wave oscillation.

A spiral is manifested as logarithmic gain of 1.618 within sine-wave gain curve occurs were Voltage "Electrons" are accelerated within virtual oscillatory wall (stochastic resonance).

Condensed original comments:

Battery provides primary power for 12VDC to 120VAC as to Run prime mover (Rotary-converter), second motor acts as an squirrel cage self-exited generator, a triple flux-capacitor LC tank tuned to best Standing wave condition as to create standing wave current node internally in battery at 0 voltage to battery "negative resistor" At 0 volts "voltage" a negative current is created as to maintain a reverse flow (charge) to battery exceeding the forward drain of the inverter demand, detuning system with a forward charge at 10 amperes with a voltage rise of approximately.83333 V over the battery voltage charge produces OU transform from the 0 point standing wave component. System gains energy from stochastic resonance within the LC tank components draining energy from "thermal" signature of the ZPE and K thermodynamic-thermoelectric ambient heat (electron spin). This is a full disclosure of an operational and tested device, system is made of standard off shelve items, tuning is made by changing capacitor values and the proper selection of standard items for its construction, 3PH motors, 10:1 12V or 5:1 24V transformers with the proper core and winding values (standard) off shelve, diode bridges capacitor (all standard). It requires extreme knowledge In RF systems and electromagnetic resonance engineering.

Warning!: Do not operate above 10KW, or over extended time periods.

## Project: Transverter (Trafo Converter)
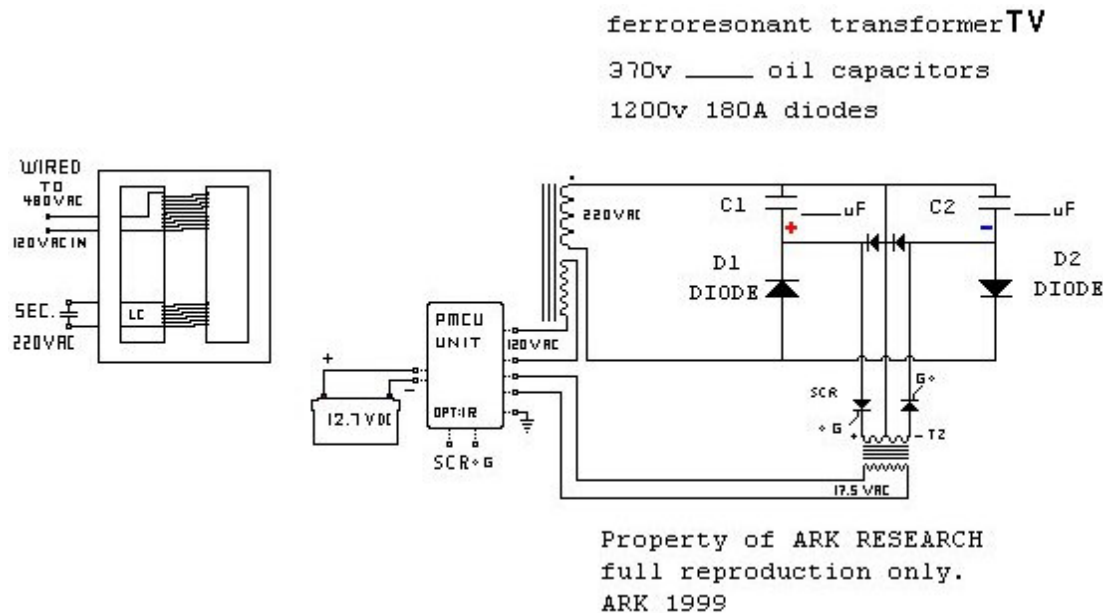


**Figure 15 Transverter circuit idea, source: ARK**

**Principle**: gain from the resonance and transformation

**Notes**: Note that the primary is wired to 480VAC and the real input is 120VAC (4 times lower, just like in RV). The secondary is winded to 220VAC and the voltage resonance point is determined by a simple LC circuit in the secondary. After that the circuit is made to use two exactly the same sized capacitors behind the diodes (called

a diode plug). On the circuit above we can see the diode plug with timed SCR discharging mechanism for looped recharging.

## Project: COLD fusion, sonofusion

Resonance creates the SONOFUSION in the water. Use RV triple-flux output into the cold fusion cell.

Use sodium-aluminate solution, it is the catalyst for creating the magic. Normal scientists use expensive palladium, but aluminate will do just fine. That's the secret of it! You can prepare sodium aluminate by mixing aluminium with lye (NaOH solution).

All you need is a $12 glass square FISH tank, aluminum tape and a 10KV neon transformer using 20KV microwave diodes to charge tank oxygen and hydrogen will form in + and - opposed glass surfaces inside tank , the thinner the tank the better (less voltage required more gas produced). Inner electrodes may also be used for multiple plates. Using a resonant LC in series with TANK capactrode creates sonofusion effect were water glows bright white green in the dark and as you turn transformer off it keeps on working. Hydrite sonofusion reactor effect. The sonofusion range is 23 to 24.5 kcps (or any multiple of 2.45GHz). Warning, it is more difficult to tune than RV and it detonates to instant 600PSI if done on wrong Q resonant mode. Stay well under 700W if water electro-sonically LASES it will project a 2 way shock beam able to penetrate 12 inch steel armor plate (worst case), or a lot of broken fish tanks & lab flooding. Not so easy to tune, energy is extracted using resonant plug system and opto-triggering transverter switch.

## Project: Ecklin-Brown generator

Ecklin-Brown generators are OU. These are meant to be run (and looped) using Rotoverter as prime mover. There are two main designs possible with- and without magnets. If you design it without magnets (with DC input) you can put the system to generate using a capacitor in DC input, which starts to generate at higher RPM (2000 RPM mentioned in original texts). It is even OU when using normal DC.
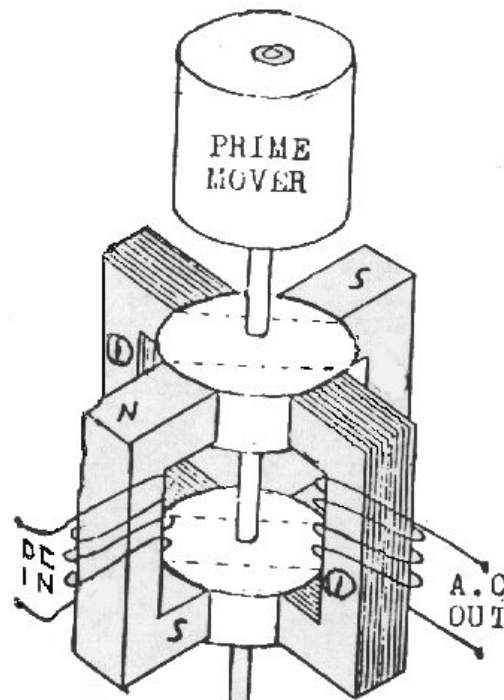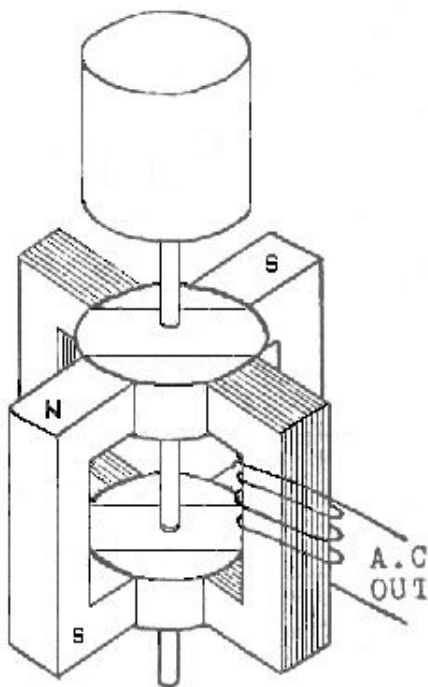
**Figure 16 Ecklin-Brown generator realizations with magnets (left) and with DC input (right), source: http://www.overunity-theory.de/ecklin/ecklin1.htm**
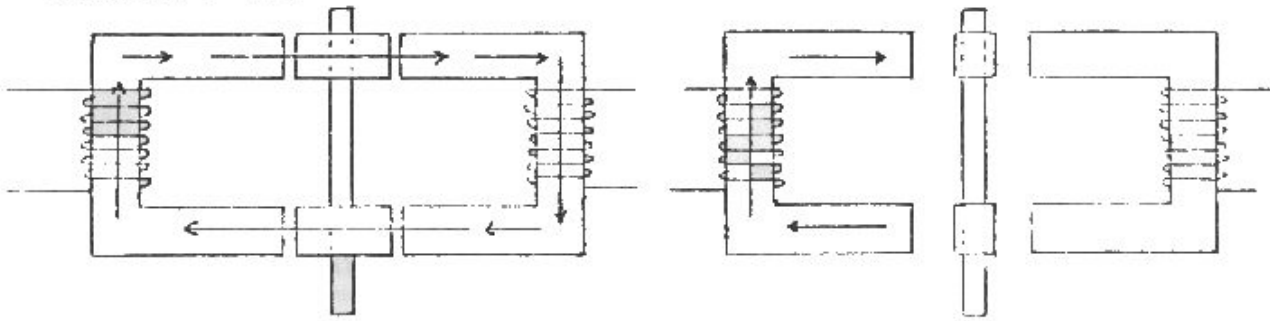


**Figure 17 Ecklin Brown generator's working principle, source: http://www.overunity-theory.de/ecklin/ecklin1.htm**

To understand the mode of operation, it is best to think of magnetism as a fluid (much the same as in electrical considerations), and iron is a conductor of magnetism. When the poles of the rotor till the cap, magnetism flows through a closed circuit as indicated by the arrows. This flow sets up a magnetic field around the output coil. Now the rotor turns 90°, the gap is opened and the flow of magnetism trough the output coil ceases. This causes the magnetic field to collapse in the output coil. It is the rising and falling field in the output coil that produces the EMF.

In actual design you may use four poles. The magnetic conductor is iron. As the last minute information about the rising the efficiency, one should consider using special design of the iron conductor to avoid the „shorts", i.e. losses in the conductor. Taking account these considerations one can build much more efficient generator.

## *Theory (consolidated knowledge, invaluable)*

### RESONANCE IS THE KEY TO THE OVERUNITY

Overunity (OU) is the transformation, RF (radio frequency) = RE (Radiant Energy) = OU.

**The Basic postulate is: OU comes from transform gain, electrical, thermal, atomic & temporal (time).**

- First proof is stochastic amplification (RF R&D),

- Second is Q gain in resonant circuits,

- Third comes from RF antenna multiplication factor. If an antenna can have OU why not a motor?

ZPE is transformation from one energy region to another. The key to over-unity and ZPE is **resonance**.

There are three energies related to ZPE (radiant energy 3 modes): **electric atomic potential (Electron Spin), Electro thermal, Time density.**

Capacitor discharged into zero resistance, energy becomes (theoretically) infinite and not far from the truth, if this pulse is used to saturate another LC as electromagnetic amplifier **Easer** pump. This is the effect (Easer) Bearden, Newman, Bedini are working with, common to all free energy machines. Energy is transferred from **thermal-magnetic** regions. If forced more then is transferred from **electron spin**. Forced even more - electron decays, becomes **vitron** emitting photon as anomalous Eldridge fields are created, **time** is beginning to be distorted. Energy transfer becomes awesome force. Morphogenetic field is disrupted matter (becomes ideo-plastic) and is turned to primal mind responsive paste. Aether transform occurs. Nuclear elements can go critical with awesome force, silicon becomes Nuclear Photonic Explosive. The amplified PK field creates whatever your mind projects to it.

My advice: start with electro-thermal - safe, simplest, stochastic resonance, Easer modes. Use first applications in ENERGY SAVING and R&D tools to quantify loss & gain (that is what RV is for) is a practical off the shelve material built tool.

Understanding the mechanics of how power is transferred from the ambient into the device become more analytically tangible as some book rules can be applied to justify that transformation.

Hector: "You can get OU from a kitchen sink if you make it resonant!"

At resonance standard power raise figure is 1.618, .618 of energy required to sustain ferro-resonance, in some cases .382. Capacitors can pass full current at 0 voltage.

At resonance (RF principles) R becomes L, L becomes C and C becomes R. Other "mutations" are possible.

### The STOCHASTIC RESONANCE and amplification

OU is not a perpetual motion as the main-stream scientist may think. It is a transformation. Learn the basics of the stochastic resonance phenomenon, how weak signals are amplified by applying the random noise. "Stochastic Resonance" is a phenomenon in physics where a signal that is too faint to be detected can be amplified by the addition of random noise. It is generally applied in the field of radio and related studies.

The basics is as a signal passes by a medium is amplified, and that is what OU is all about. That is the secret of OU "transformation", taking energy from the Dirac sea of energy and transforming it to useful form, be it thermal electric or etherial.

All devices work under same basic formula $H = I^2 Rt$ were basic gain from magneto-atomic amplification is a predicted 1.618 within a logarithmic gain time-reversed spiral with consequential thermal-ambient noise reduction and transform to the electrical power region DC vectors within a capacitor diode plug recovery system.

Using 1:1 trafo: normally it rises to PP peak to peak value = x 1.14. (Comment: if you measure 1:1 trafo output in the secondary it should have already gained 14%.).

But in semi-resonant condition the MAGNETIC collapse within coil-core-space components transfers potential from the media, thermal, aetheric to physical voltage realm. As a voltage charge in a capacitor ... (in comes from there) OU is transformation...nothing else – gain factor is as 1.618 X D (delta variable) a VARIABLE on CORE-AMBIENT ELECTRON DENSITY, - remanence, reluctance, hysteresis, polarization and other parameters that multiply the ability of a compound or element to switch and latch its magnetic orientation.

ZPE is the transformation from one energy region to another: The KEY to OU & ZPE is RESONANCE. **There are 3 energy related to ZPE**: electron spin, electro-thermal, time density. My advice – use electro-thermal, safe, simplest, stochastic resonance, easer modes. Use first applications in **energy saving** and R&D tools to quantify

loss & gain (that is what RV is for), is a practical off the shelve material built tool. A RV lawnmower uses 100W (max) spinning at 3,450RPM, delivers 1 HP upon loading (heavy grass) uses 600W. A normal electric one uses 1,300W constantly (since turning on ..) to deliver 1HP. RV one can be operated with one 120W  solar panel 12v battery and inverter and while idle solar panel still charges the battery. RV uses 1/10 the power on idle compared to the conventional motor.

### Rotoverter and the Radiant Energy

As an alternator is taken to resonant states the RADIANT energy RF manifests a magnet vibrates 4 inches from the alternator totally enclosed IRON housing!

RV functions as reverse dynamometer can help you to find how much no load friction there is in the rotor as to find ways to lower such and increase power gain, same with the electrical parameters as RV works as a true transformer you can measure effects of design changes physical or electrical on your generator design, at the motor speed you choose be it 1,(725-800) or 3,(450-800) RPM.

OU – unseen to the untrained mind as the 3rd vector phase is generated a transform occurs from the 0 point energy component within near resonant angles, such phase relation acts as a negative induction component resulting in a logarithmic spiral amplification within wave components such being by a true factor of 1:1.618 energy gain within the 3 phases rotary magnetic field.

### Power factor (PF) (phenomena) in AC and resonant AC circuits

PF = watts / (Volts × Amperes) = watts / apparent power;

Watts = volts × amperes × PF;  PF (motors) = cos(PHI)

Total power (VA) = SQRT(real power$^2$ + reactive  power$^2$)

In fact, the power factor can vary from 0 to 1, and can be either inductive (lagging) or capacitive (leading).

PF correction capacitors are often rated in kVar (kilovoltampere reactive), instead of uF. The reactive current from inductive components as in motors, dissipate power when flowing through other resistive components in the system. The current lags voltage in that case. A capacitor compensates sinusoidal PF lags, like those from linear (non-saturating) inductors. In the factories, the overexcited synchronous motors are used to correct the PF nearer to unity caused by other motors and inductive components. In high impedance PM RV systems the current becomes leading.
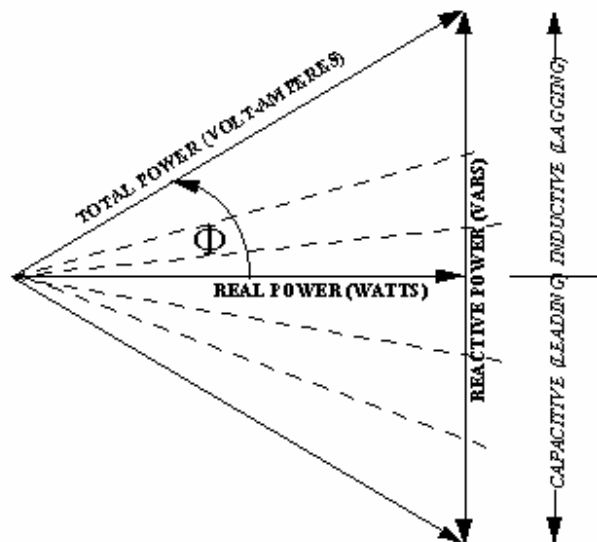


**Figure 18 PF triangle, source:**
**http://www.nepsi.com/powerfactor.htm**

Using PM RV (permanent magnet core Rotoverter) connected to the system in high impedance mode it will supply kVars to the power lines by itself using a fraction of it. This is the over-unity operation and can be proved by measuring the decrease power usage in other motors.

POWER factor is produces OU (Q is related to it) in high impedance systems! Newman and Bedini are correcting power factor in their batteries. Bearden's MEG corrects power factor in its magnet. Correcting power factor by matching the impedances what is it? It is resonance!

## COOLING EFFECT

Cores will cool down as predicted in GENESIS transform. Cooling effect takes place in Easer systems.

## EASER (Electrical Amplification by Secondary Emission of Radiation) energy pump

Easer modes are hit at RESONANCE, trafo is exited to easer modes.

Newman, Bedini, MEG, VTA is same stuff same principle EASER Electromagnetic Amplification by secondary emission of radiation (RF) "radiant energy" RF radiation taken from magneto-atomic ambient energy resonant states (transformed) to a charge. All that is needed is to understand its mechanics and improve on it.

L includes core ZPE Easer (delta) parameters, core must be pumped to its resonant saturation magnetic potential as to later release this potential completely within magnetic collapse; core size determines wire turns and capacitor values. In motors I found the best performance was from 3 to 7.7 HP motors at lower or higher HP rating effect decay occurred one lacked core the other had excess of core. Same rule applies to trafos were you have and optimal core size I tested to 1MW trafos an optimal voltage UP to 38,000V and optimal resonant current 250A, optimal frequency of 47 to 777 cps.

Any trafo can be converted to OU device if taken to resonant or semi-resonant Easer states. Secret is right pulse intensity and length to excite the coil or and core to high energy electron active states and proper capacitor value for this energy to slide in logarithmic curve into a capacitor as a voltage potential. Extraction is quite simply done in its blanking period, non-reflective to source as Easer mode is attained. Temperature goes DOWN as pulse excites the CORE to saturation states, the collapse of the field transfers thermal component (and part of time-space tensor) to energy potential into capacitors. Now you have the secret to ZPE. In a sense it is a "magneto-atomic resonance". Quite interesting to note OU is there all the time and the mechanics to extract them are not really that complicated.

Hector: as coil discharges M field is converted to E field as magnetic collapse occurs E field compresses in time so becomes a logarithmic gain as time recedes within negative logarithmic path and voltage increases in positive electric potential. Mechanical equivalent is transmission gears were if you increase speed and lower it the next gear will gain force here we do the same, but gain force from electron spin gears within a coil core system.

Constant load potential has to be maintained to sustain the Easer-resonant modes within the cores that transform the magneto-atomic resonance and thermal energy electron spin into usable radiant energy. This thing runs truly in 0 point energy (atomic noise) of a sort too complex for me to explain, all concepts of zero point energy are wrong and need to be re-written.

## COLD FUSION

Electron depletion ruins the battery (cold fusion electrolyte). Current and voltage must be DC or phased pulse at battery. Also do not exceed 12.7V per battery, it will destroy it in the long run!

Bedini motor and Konzen motor (operated OU until battery went off parameter and detuned to under OU performance), battery is a variable parameter "C" – a big capacitor, very critical to tune and not friendly with RF "radiant energy' as natural cold fusion destroys it. I am trying different methods to attain stable looping working with 3 PH transformers, basically method is same as in Dons page, transformer can be autotransformer, bifilar, toroid, homopolar AC (gray tube), the idea is to VECTOR HI CURRENT RF NODE STANDING WAVE into SOURCE supplementing the voltage by a virtual anty-node within same component, the energy transferred from the core ambient energy is awesome... Grey did it, Tesla did it. Why not everyone else?

## CAPACITORS

Electrolytic capacitors degrade as contains a WATER boric acid electrolyte. The sonofusion & electrolysis of water molecules destroy such. Recommended capacitors for RF are OIL, milar, film, electret, mica, ceramic, glass and other no water types. Tantalum is NOT recommended as it becomes ATOMICALY unstable shorting out at ZPE states. Specially, if WATER contamination is present within inner structure (layers), they must be specifically 100% dry and tested as such, must be encapsulated, still hi failure is problematic, so its use is not recommended.

### Vitron

Vitron is magnetic charge flux, 4th dimensional electricity. Magnet has positive and negative vitrons regions.

### SOFT ELECTRON depletion, vitrionic energy (why magnets deplete or self-runners radiate visual orgone energy)

I decided to make it public, maybe the collective minds might be ready to deal with the other problems that come from PM motors this being magnet depletion, soft electron problem, operator influence energy amplification (PK energy), orgone energy (blue-green) negative, (pink red) positive violet- blue (liquid light) "Vrill", Vitron energy.

Vitrionic energy results from the decomposition of electrons from its 4 basic components (electron is composed of 4 vitrons), decay is described as photon emission in color regions as previously described and 3 vitrons into soft electron region electron is composed of 4 vitrons forming 3 triads 5th dimensional construct within particle (electron) as it becomes soft it transfers to 4rt dimensional tensor region from 3D state. Its photon emissions regions depend in spin rotation and polarization states as shift occurs. Containing 4 vitrons one exits as photon green or red color depending on shift pattern. As of any phenomena, it carries a lot of hidden dangers, as it can do many good things that we must choose.

When magnets are used in repulsion mode, they deplete, in attraction mode they get stronger!

### Plasma

Plasma acts as a GUN diode, switching on and off in the magneto-atomic regions of coil resonance, were coil gains energy from stochastic resonance transferring thermal and electric atomic potential (electron spin energy) to CEMP.

### UNDERWATER BULB (in RLC resonant circuit)

The filament is the equivalent of the spark gap in the Tesla radiant system, the resistor in E-Gray system is tailored as to this effect. As you can get a proper ampere load to fit in your optimal LC radiant condition you will be able to put it underwater as E-Gray did in his demos with no BANG or BBBZZZZT! to it. And quite well over the 1.618 theoretic figure in OU luminic energy output.

R becomes anty-node were voltage does not exist, becomes imaginary figure so R becomes imaginary too, its voltage drop being a value of other higher aspect of theoretic calculation not fit to standard. Please see it as RF ANTENNA system. Study node anti-node dynamics and see the RV LRC as radio frequency dipole.

Current value must be the same as if bulb were connected to normal power line voltage and current. There you can realize bulb is in CURRENT STANDING WAVE NODE, while the capacitor is in VOLTAGE STANDING WAVE NODE (that is working in radiant energy mode) as RF Radio frequency rules apply.
http://www.rexresearch.com/evgray/1gray.htm

### ECKLIN type generators

I designed RV for use in MAGNETIC interrupt alternators and Brown-Ecklin design, MI that zip (comment: zip file with plans contains the MODIFICATIONS done by my person to it in 1983 that consisted of eliminating all shades and short circuits made by the BOLTS and ribbets used in ORIGINAL DESIGN, it enhanced performance 50% compared to original model that contained 4 shorts to rotor half moon segments and 16 shorted bolts crossing active cores as energy loss points. Gross engineering mistake. I have a more advance design, but it requires resources not at hand at this moment.

## LOOPING

System opens space-time anomaly as time is reversed due to aether energy transform. Do not exceed 10KW, stay low power! Looping (RV) creates space time anomaly intensity proportional to energy extracted by the machine.

## BIFILAR COILS

Reason some Researchers use bifilar coils is to recover at higher Q than input limited by input as supply is POWER factor Unity and Radiant states ARE NOT. One is linear the other scalar.

True but conventional INVERTERS do not take vectoring too friendly this energy fry them like lightning, the so called COLD electricity E-Gray talked so much is more like a constant canned EMP the first step is vectoring this energy to a charge value within a capacitor were its JOULE potential exceeds the input by gaining energy from the media, What I do electrically with RV alternator is to spin the rotor squirrel cage (Reverse Inductor) inside a 3PH LC 3 phase oscillator tank circuit were the effect is similar to the effect you can do by stroking a wet finger in a fine grass cup, one wave mounts to the other with the acoustic similar, being magnetic multiplication factor.

Read here about Q figures and signal decay: http://home.freeuk.net/dunckx/wireless/sparktx/sparktx.html

AT Q34.6 the decay is .09 of the signal then all you need to sustain a RADIANT energy signal is that .09, in a system that contains multiple elements decay becomes non- reflective upon loading as resonant states are maintained this results in magnetic amplification from the medium, stochastic amplification and thermo-magnetic energy transfer, resulting in APARENT OVERUNITY (in true sense is OVERUNITY due to transform) in ferroresonance metal cores tend to LASE (laser) but electromagnetically EASER modes a lower power pumping can result in a major transfer from other energy realm.

Keep these notes as in a near future this will be proven as a fact ...free energy and ZPE is nothing more than ENERGY transformation.

RV proves a fact that this power is there and can be compressed in LC circuitry and vectored to higher energy levels than the input, its just a matter of time the mechanics to do this transformation can be done with off the shelve parts, as none of you have money to buy million dollar amplitrons and use calculus to theorize as how to co-phase stochastic resonance and ferroresonance in a matrix or built billion dollars prototypes. It is quite easier to work with 240/480 voltages than E-Grays 5,000V resonant pulsers or Teslas 10 million volt coils.

I only ask for all of you to give your findings public and not to keep this covered, RV can be used for electrolysis in tripleflux triple-electrode mode as Transverter plug, use it and pass it on. The secret to free energy was given, it is up to you to say its true I did it too, than to try to cash in and die for it, I gave RV to save lives not to end them, but darn! People always find ways to turn things against themselves.... find applications, there are many, until making the toy and playing with it, it just runs itself.

As Tesla said MATCHING THE SOURCE to the NEEDS of the LOAD! KEEP these NOTES!!! Will become invaluable in the future as is predictable you all will need to fight to keep this free and preventing usurpers and thieves appropriating it for them.

Unity brings over-unity, you must avoid greed, otherwise you lose the divine protection (your aura will be closed)!

**This is PUBLISHED material under COPYRIGHT statues owned by ALL of you here and ARK Research**, print it all, copy it all to paper & disc media as authorized by **ARK Research** and due credit given, don't let it be patented keep it free! This info has being out since 1980. Help keep it free and enjoy its uses and applications!

## *Links*

## Tools for research

| | |
|---|---|
| Basic tools: | http://www.smithy.com |
| Solar: | http://www.solarex.com |
| | http://www.kyocerasolar.com |
| Permanent magnet alternators and solutions: | http://www.hydrogenappliances.com |
| Magnets: | http://www.wondermagnets.com |
| Electronics, etc: | http://www.dalbani.com |

## ZPE links

After studying the main principles mentioned in this "book" you start to understand how the following devices work. Now you got the key. Facts, facts and facts:

| | |
|---|---|
| Rex Research: | http://www.rexresearch.com |
| Sweet VTA: | http://www.keelynet.com/energy/vtakey.htm |
| Hans Coler: | http://geoffreyegel.tripod.com/coler.htm |
| Lester Hendershot generator: | http://geoffegel.tripod.com/hender.htm |
| Cold Fusion replications: | http://jlnlabs.imars.com/cfr/ |
| John Bedini: | http://www.keelynet.com/bedmot/bedmot.htm |
| | http://www.theverylastpageoftheinternet.com/ElectromagneticDev/bedini/bedindualbatteryi.htm |
| E. Gray lighted 1,000W lightbulbs underwater rerated to ampere load were LC current equals EXACT current bulb uses under normal load: | http://www.rexresearch.com/evgray/1gray.htm |

## Theory

| Resonance: | http://www.phys.unsw.edu.au/~jw/LCresonance.html |
|---|---|
| | http://sol.sci.uop.edu/~jfalward/acresonance/acresonance.html |
| | http://home.freeuk.net/dunckx/wireless/maxpower1/maxpower1.html |
| | http://home.freeuk.net/dunckx/wireless/sparktx/sparktx.html |
| Stochastic Resonance: | http://www.agnld.uni-potsdam.de/~zaikin/html_test/SRintro.html |
| | http://www.physics.carleton.ca/courses/75.502/slides/projects/1998/katsev/ |

Links relevant to understand the Easer modes:

| N. Tesla's Power Receiver: | http://www.amasci.com/tesla/tesceive.html |
|---|---|
| Laser (for understanding Easer): | http://webphysics.davidson.edu/students/adabele/laserlab/theory.htm |
| One-Atom Maser Confirms Planck's Theory: | http://www.photonics.com/spectra/tech/XQ/ASP/techid.833/QX/read.htm |
| Maser theory: | http://aa.springer.de/papers/0355002/2300751/sc2.htm |

## *Some Rotoverter guidelines*

In essence a RV is a combination of whatever prime mover and whatever generator. In Hector's examples normal 3-phase asynchronous motors are used both for prime mover and also for generator (in so-called "induction generator" mode). Usually the prime mover is a normal 3-phase electric motor (3-10HP for better efficiency), which is driven from single phase (using only 2 wires of the available 3 phases in your house - that is if you have a 3-phase power available at your house at all...) instead of using all 3.

We have 220V between one phase and neutral and 380V between the phases. So we took for example a 5KW 380V motor, connected it's windings into Y configuration (this is normal for 380V operation).
Lets designate the motor inputs as A,B and C. The center point of Y connection, the neutral point will not be connected to anywhere.

Now your house neutral line will be connected to input A and one of the phases will be connected to input B. With only 2 connections a normal 2-phase asynchronous motor will not start rotating. For creating a virtual third phase, a capacitor is connected between motor input B and C. This is a so-called "run capacitor". The run-capacitor value should be smallest possible (giving less current draw), but at the same time it has to be big enough to guarantee proper motor action and power. The smaller the cap the slower the motor starts and the less torque it has. With normal run cap values (15-30uF depending on applied input voltage also) the motor will start up too slowly, if at all. For speeding up the startup, the bigger "start cap" will be connected in parallel with "run cap" only for the motor speedup time. During normal run the bigger start-cap should be disconnected.

So now you have the normal 3-phase motor running from 1-phase power with the help of virtual third phase which is created by capacitor (which creates a 90-degree phase-shift between applied voltage and the current it is passing through).

The advantage of this virtual 3-phase powering scheme is, that the prime mover will draw MUCH less power in idle mode. We have run our 5KW motor with less than 60W input power in idle mode. When this big 3-phase motor is connected to it's designated 3x380V power, it will draw HUGE power (x10) also in running only in IDLE mode - what a waste... The virtual 3-phase driven motor will consume more power only when it is loaded, but will draw really little in idle mode.

In Hector's RV he is using special dual-winding motors. In prime mover he is connecting the windings in series (to 480V mode), but driving the motor only from 110V grid. This series-connection further helps to reduce input current. In his alternator part (the second dual-winding motor) he has connected the windings in parallel - this reduces losses and alternator (generator) internal resistance.

But if dual-winding motors are not available, just any 3-phase motors can be used also for initial tests and for getting known with all the related effects. It is good to use 2x 3000 RPM (3600RPM in US) motors or also 1500rpm (1800RPM in US) motors can be used. Also – for creating a 100 or 120Hz (US) alternator a 3600RPM motor can drive a 1800RPM-rated generator motor. By having higher herzes at alternator allows you later to achieve higher resonant Q values and also allows to use much smaller caps. But for initial tests 2 similar 3600RPM motors or 1800RPM motors are just fine.

The prime mover is connected with the alternator with a rigid coupling (or it can even be a belt drive but this one is much less efficient).

As said before, the alternator is a normal 3-phase motor also, but it will function as "induction generator" – see http://www.qsl.net/ns8o/Induction_Generator.html. The normal 3-phase motor can be driven by outside mover and be made to generate pure sinusoidal voltage when a suitable "vector cap" is connected between two of it's output connections (a,b,c). The windings in this time are again connected into Y configuration. But the delta-configuration works also. Also the prime mover can be run in delta-config when input voltage is too low to drive it properly in Y-config.

Now, when you have your prime mover running and have it connected to the second motor which you will be using as alternator the only problem remains - how to choose the suitable "vector cap". Problem is - when this cap is too small, the motor will not start to generate.

When the cap is too high - a too big drag will appear to the prime mover and if it's run cap is too small, it might be not able to drive the alternator any more... In certain resonant modes the drag will be probably less... Needs a lot of experimentation.

Anyway, for facilitating the tuning and finding a proper vector cap, it is advisable to build at least one (better 4) tunable capacitor banks. It's a box full of different caps and you can connect them in parallel (or in whatever combinations) with some switches which are fastened to the box lid in order to get different capacitance values. The caps should be good "motor run capacitors, oil-filled".

But for crude experiments, you should get your prime mover running (alternator part now running too due to rigid coupling) and start connecting different caps between alternator inputs (or outputs, how to say...) a and b. Start for example with 10uF. BE CAREFUL - no bare hand touching and "one hand rule" is a good thing to follow. Good bunch of heavy-gauge wires with good powerful alligator clips are very handy for such experimentations. Have your voltmeter connected between alternator inputs b and c. If voltage is not rising much above 0, add more caps, until voltage starts to rise. With certain caps the voltage can climb easily to 200-300V. Check also the current in one of the leads which is connected to vector cap with a good clamp meter.

You can also hear that when the alternator is generating properly and you add still some caps, the drag will become heavy and motors will do a different sound than in idle mode. When your prime mover can still drive the generator, then it's ok. Check the amps and volts at the generator - there might be easily 300V and ca 10A circulating in the vector cap, when the prime mover consumes only 110V and 4-5A. This gives us ca 4.5KW of circulating virtual RF power at the alternator and only 500W input needed to drive the whole contraption (Rotoverter). Now only questions remain - how to extract this immense virtual power in the alternator and loop it back to the input. For achieving this are many possibilities and there the 3 other variable cap-boxes might become handy.

It is impossible to loop the alternator-generated voltage DIRECTLY back to the input, unless the 5-7% speedup gear is used between prime mover and alternator (the prime mover, which is driven with 60Hz voltage, does not run at 3600 RPM, but slightly less due to the slip -there has always to be a small speed difference between the revolving magnetic field in the motor coils and the squirrel-cage rotor, otherwise the magnetic field lines will not cut the rotor shorted turns and will not create the needed magnetic field in the rotor.

Another way to loop is to use a DC-to-AC inverter. First you have to have 3 identical 250V->15V trafos, connect them via tuned caps to the alternator output windings. Route trafo outputs to full-wave rectifying bridges and put all rectifier bridge outputs in parallel to get good low-ripple 15V DC voltage. Put this 15V DC voltage to inverter input and route the inverter output to your prime mover input. Now you have a looped system. At the inverter input there should be also a normal car battery, from which the whole system can be initially started. When RV is running, the power, generated by the alternator, will charge the battery and also drive the prime mover via the inverter.

The gain comes from resonant effects - depends how well the trafos will be tuned to the alternator output. There will be resonant voltage rises or also at resonance the trafos and caps will create a certain tank circuits in parallel-resonant or series-resonant mode, which will bring along a resonant voltage rise at the trafo inputs.

See http://www.theverylastpageoftheinternet.com/ElectromagneticDev/arkresearch/rotoverter.htm for plans and more explanations.