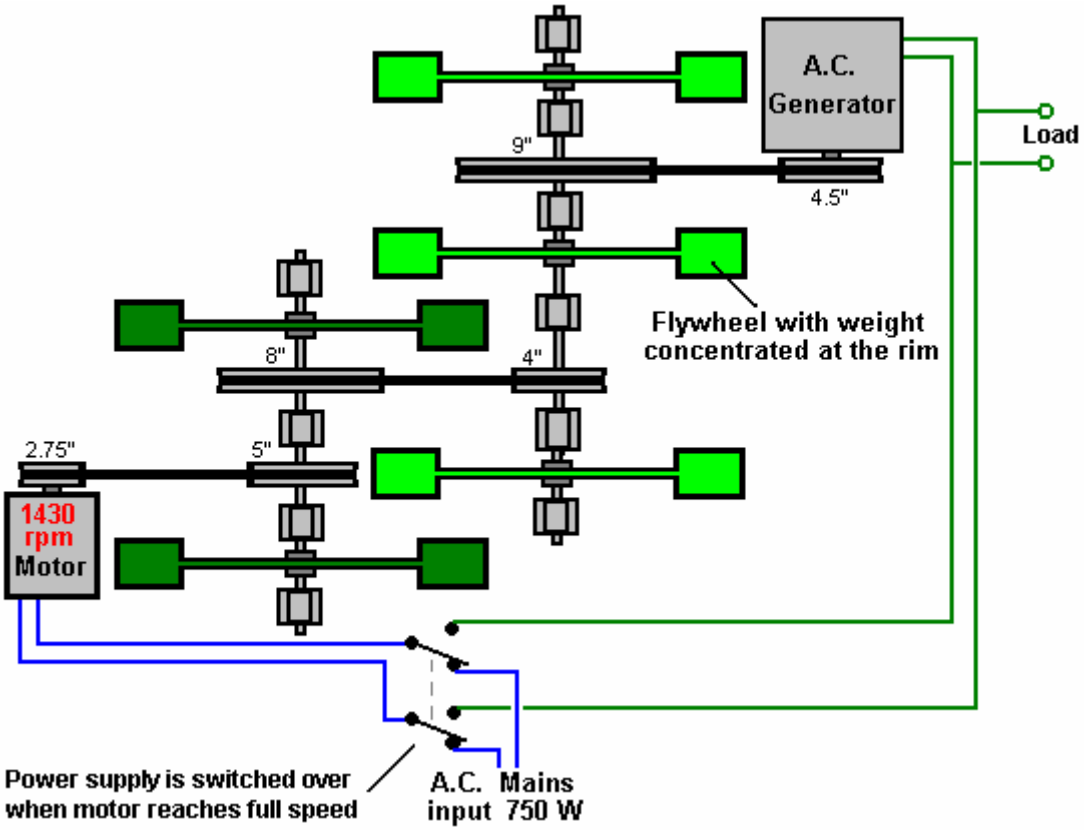
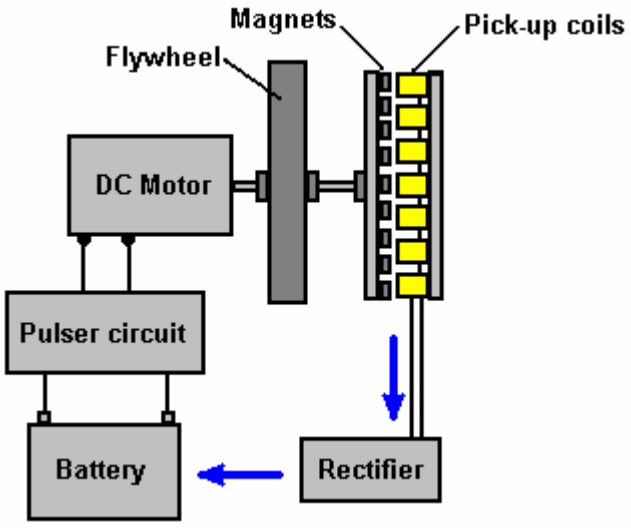
This is a list of possible free-energy development projects in approximate order of their potential. This list represents the opinions of Patrick Kelly and so is definitely not the only possible list. The objective is assumed to be the construction of commercially viable free-energy devices intended to provide household power.

1. **The Chas Campbell pulsed flywheel**



Shown here in diagram form, the stress on each flywheel is reduced by using five smaller flywheels, while maintaining or increasing the overall energy gain and shaft output. The maximum energy gain is when the motor drive is pulsing.

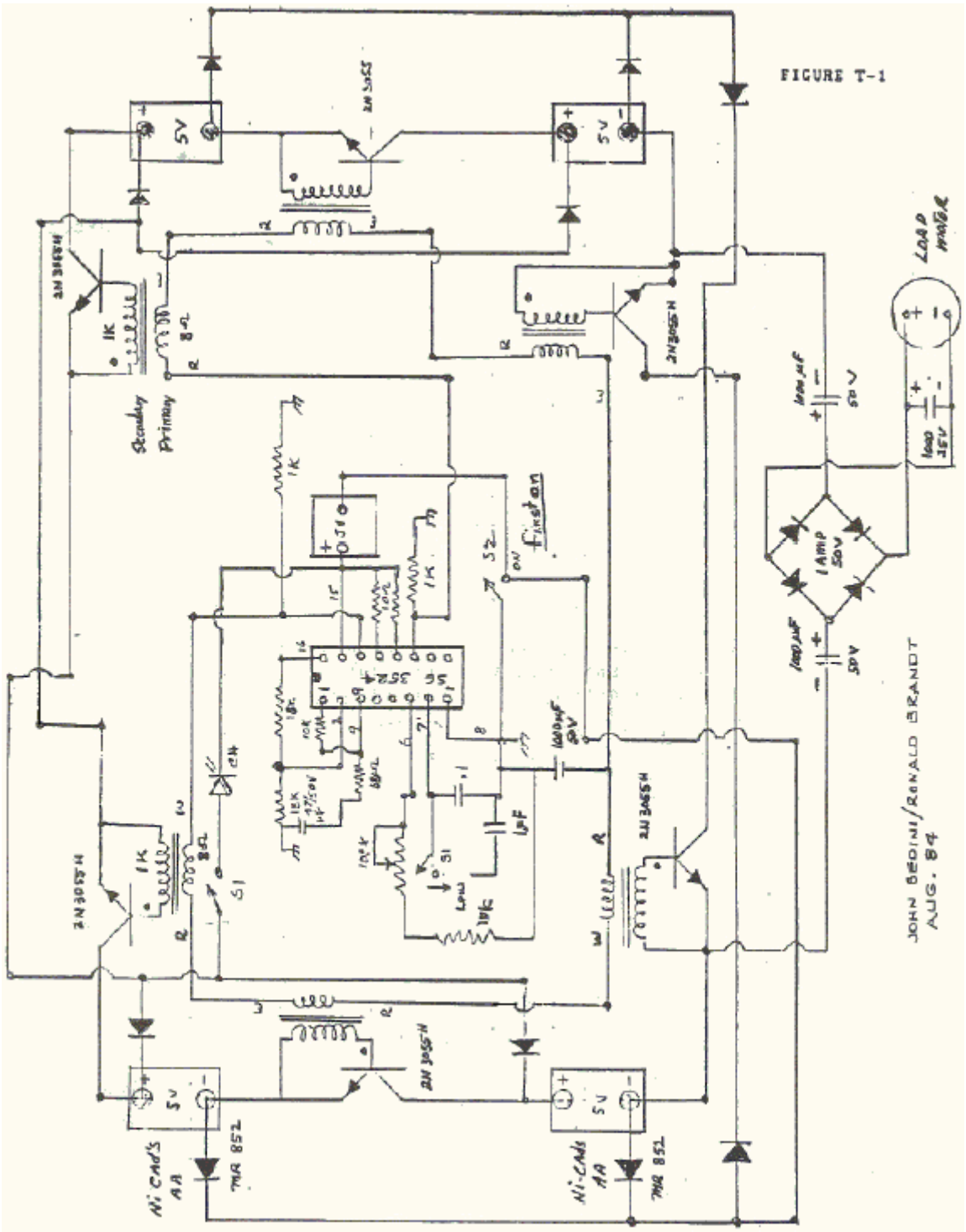
John Bedini ensures this pulsing by using a DC motor and feeding it with pulsed DC as shown here:



This circuit ran for three years continuously without needing to have the battery charged. The magnets and coils form a home-made electrical generator. In the case of the Chas Campbell device, the Bedini battery would be replaced by a stabilised power supply driven directly by the output generator. A scaled-up version of this Bedini system constructed by Jim Watson, had an excess output of 18 kilowatts.

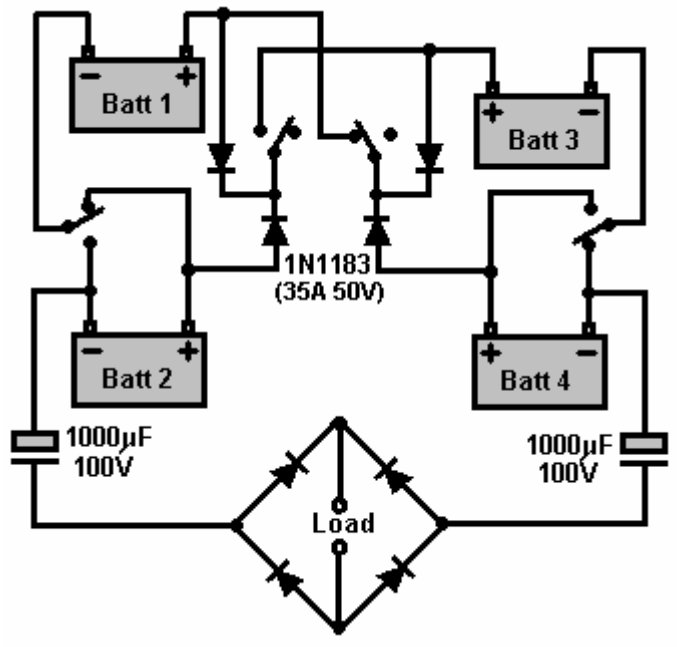
2. **The Tesla Switch**

John Bedini built his famous “cigar box” version of this circuit for the 1984 TeslaTech Conference using this circuit:



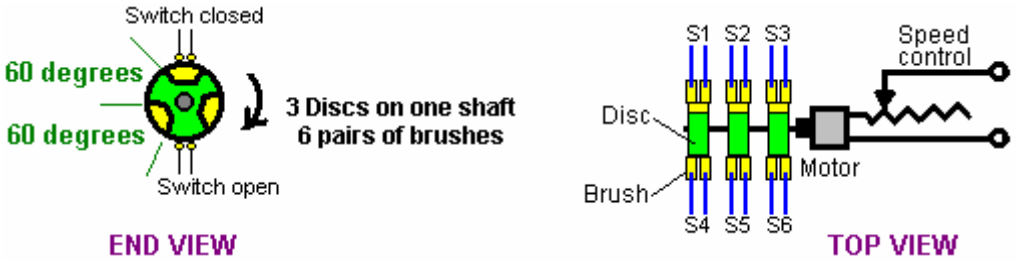
Here, the batteries were made from four NiCad batteries in series, making 5 volts. This circuit ran for six months continuously, powering a load and keeping the batteries fully charged at all times. After six months, John Bedini had a visit from two men who smashed the circuit, pushed John up against a wall, shoved a gun in his face and told him not to rebuild the circuit or speak publicly about it again. To this day, John does not speak publicly about the circuit, but in private he describes it as “pure gold”.

This circuit was tested for three years by staff of Electrodyne Corp. using four ordinary car batteries. Their version was:



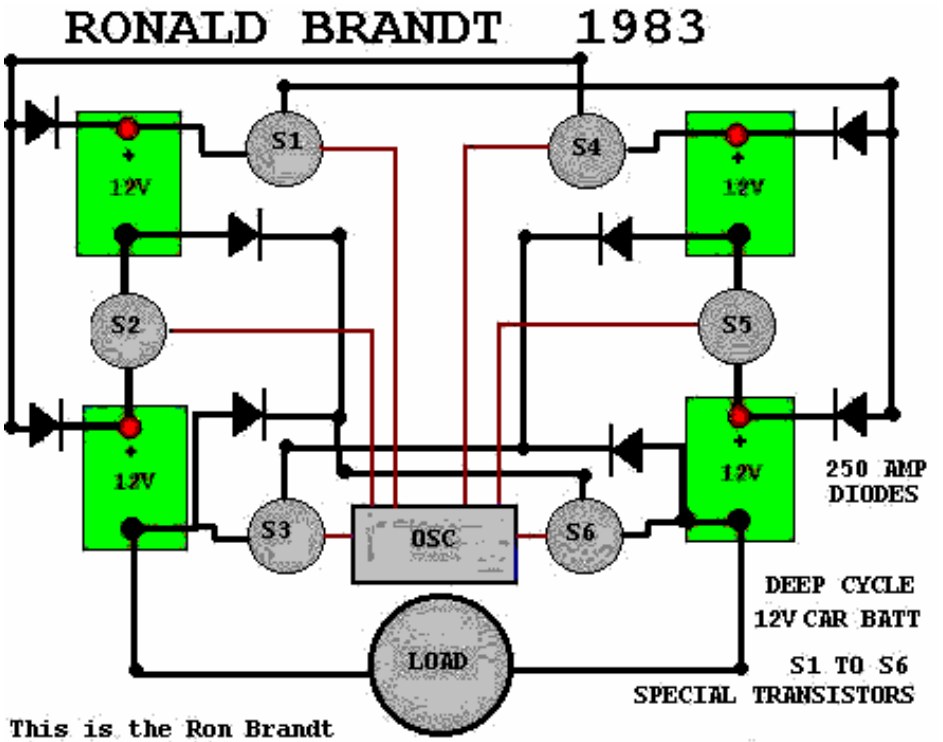
This simple-looking circuit needs to have an inductive load, preferably a motor. If the switching rate and switching quality were of a sufficiently high standard, then the load could be powered indefinitely. After three years of tests, the batteries appeared to be in perfect condition. If the circuit was switched off and the batteries discharged to a low level, then when the circuit was switched on again, the batteries returned to full charge in under one minute. As no electrical charging circuit was connected to the system, the energy which charged those batteries had to be flowing into the batteries (and load) from outside the circuit. The similarity with the Bedini pulsed battery charger circuits immediately springs to mind, especially as no heating occurred in the batteries in spite of the massive charging rate. If the circuit was switched off and heavy current drawn from the batteries, then heat would be produced which is quite normal for battery discharging. The system operated lights, heaters, television sets, small motors and a 30-horsepower electric motor. If left undisturbed, with the circuit running, then each battery would charge up to nearly 36 volts with no apparent ill effects. Their finding were that if the switching rate was below 100 Hz then there was no power gain and if the rate exceeded 800 Hz, then it was dangerous, but they omitted to say why or in what way - possibly causing the battery voltages to exceed the voltage ratings of the circuit components which they were using.

The switching used was mechanical:

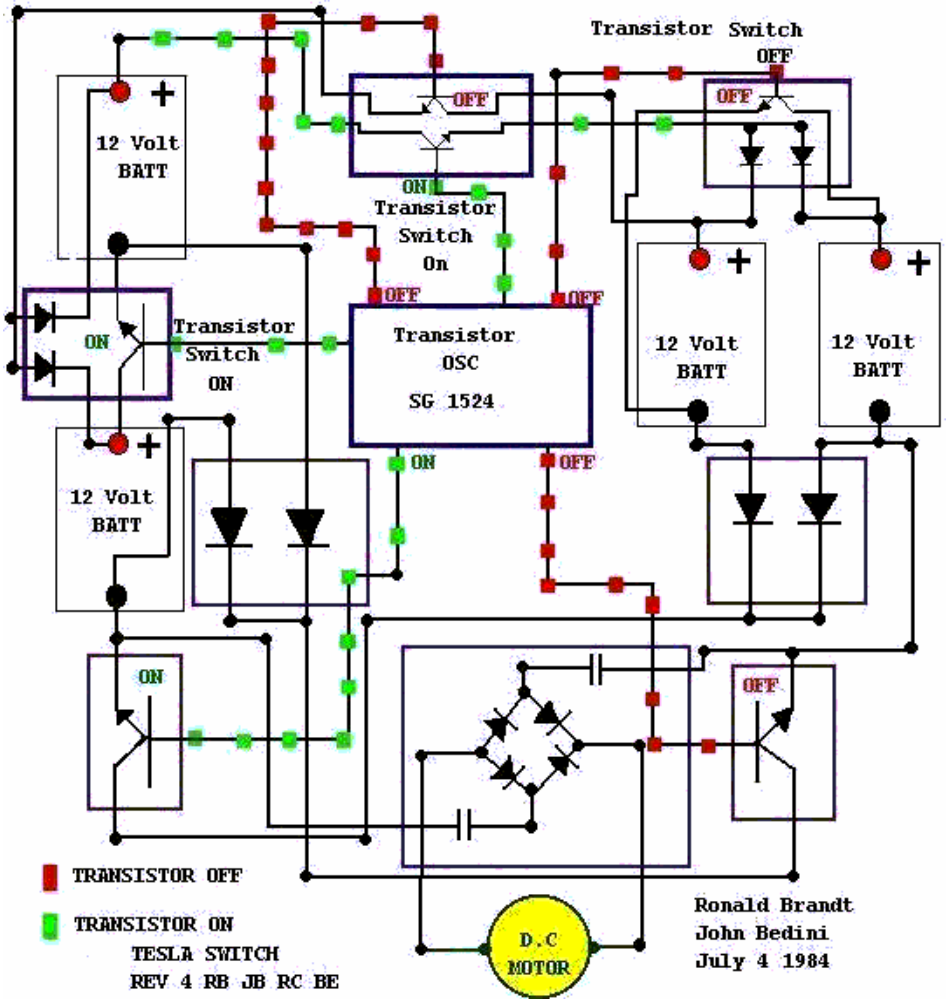


and while mechanical switching appears crude, it is not necessarily so at all as it gives very sharp switching and as the circuit load ideally is a motor, the switching contacts own motor can be part of the circuit load.

Ronald Brandt used a slight variation on the circuit as shown here:



This is the Ron Brandt converter, the way I received it from Ron in late 1983. Ron had this in a car which he drove all over town and on the highway at speeds up to 60 MPH.



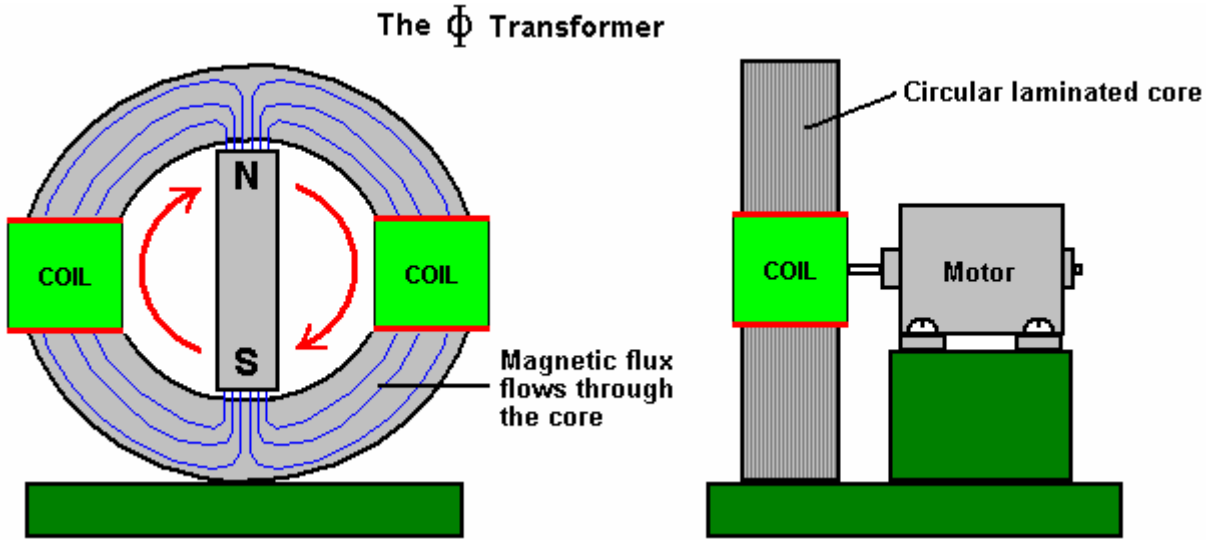
You will notice that it is stated that Ronald Brandt drove a car powered by this circuit at speeds of up to 60 mph, which represents a substantial kilowatt output from the circuit. This circuit has the potential for household power with semiconductor switching and low production costs.

3. **The Phi Transformer**

This is a very simple device which has not been replicated as far as I am aware. The information to hand indicate 140 watts of power input for 1200 watts of power output.

Toroidal shapes are clearly important in many devices which pull in additional energy from the environment, even to the extent that Bob Boyce warns against the high-frequency sequential pulsing of coils wound on a toroid yoke, producing a rotating magnetic field as unpredictable surge events can generate some 10,000 amps of additional current which will burn out the circuit components and can very well trigger a radiant energy build up which can create a lightning strike. Bob himself has been hit by just such a lightning strike and he is lucky to have survived. Lesser systems such as the toroid transformer used in Bob's electrolyser system are safe even though they generate a power gain. So the many toroidal system designs are definitely worth examining.

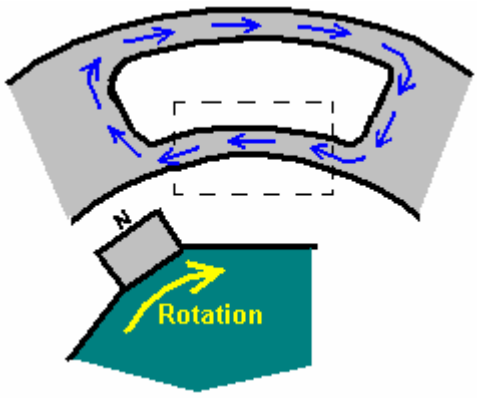
One of these is the "Phi-Transformer" which looks like a somewhat similar arrangement to the MEG described above. However, it operates in quite a different way:



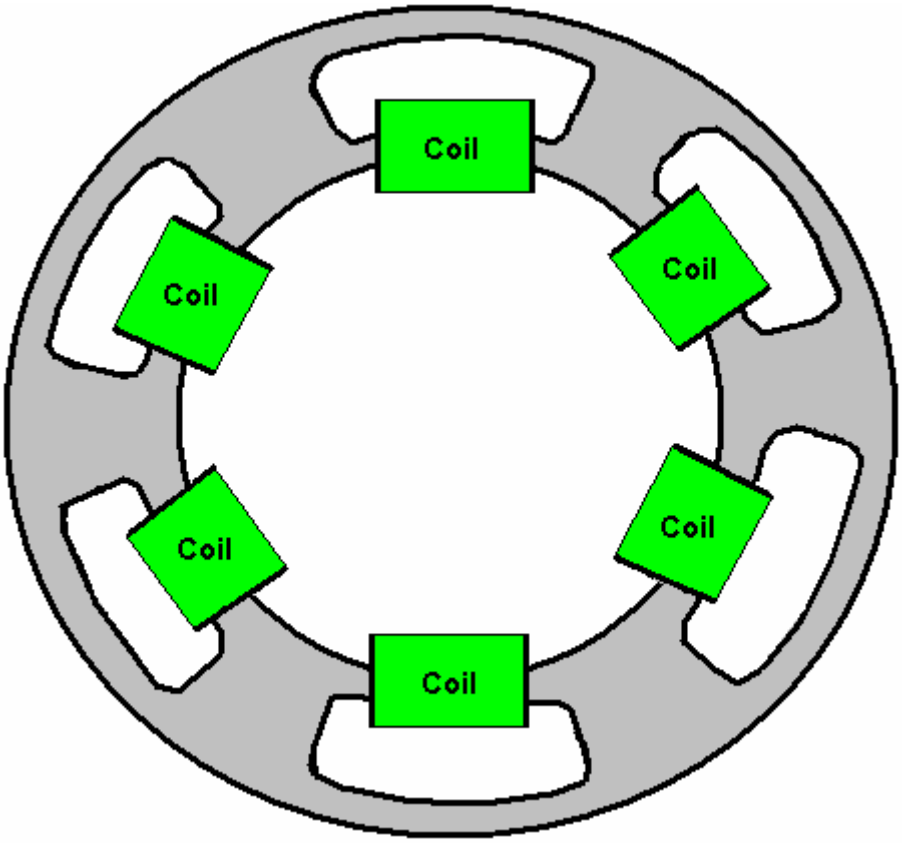
Here, lines of magnetic flux coming from a permanent magnet are channelled through a laminated yoke which is effectively a circular mains transformer core. The difference is in the fact that instead of electronically driving a coil to alter the flux coming from the permanent magnet, in this system the magnet is rotated by a small motor.

The performance of this device is impressive. The power required to rotate the magnet is not unduly affected by the current drawn from the coils. The flux is channelled through the laminated iron core and in tests an output of 1200 watts for an input of 140 watts has been achieved, and that is a COP of 8.5 which is very respectable, especially for such a simple device.

It may well be possible to boost the output power by altering the shape of the yoke to avoid the Lenz Law magnetic drag. This provides a magnetic path which allows the flux to rotate as shown here:



The yoke then looks like this:



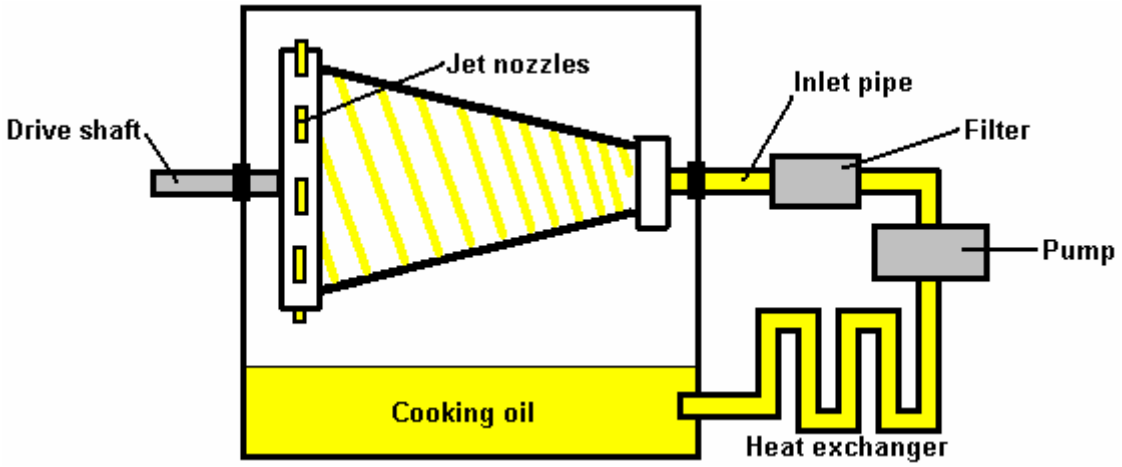
4. **The Clem motor**

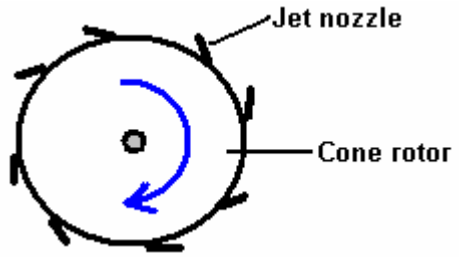
In 1992, Richard Clem who lived in Texas, demonstrated a self-powered engine of an unusual type. This engine, which he had been developing for twenty years or more, weighed about 200 pounds (90 kilos) and generated a measured 350 horsepower continuously over a period of nine days when self-powered. Although this engine which runs from 1,800 to 2,300 rpm is especially suited to powering an electrical generator, Richard did install one in a car, and estimated that it would run for 150,000 miles without any need for attention and without any kind of fuel. Richard said that his prototype car had reached a speed of 105 mph. Just after receiving funding to produce his engine, Richard died suddenly and unexpectedly at about 48 years of age, the death certificate having “heart attack” written on it as the cause of death. Remarkably convenient timing for the oil companies who would have lost major amounts of money through reduced gasoline sales, had Richard’s motor gone into production.

This motor appears perfectly viable and capable of replication and manufacture, but as some fifteen years have now elapsed and there is no indication that anybody is interested in following up on this design, it is being placed here as being unlikely to ever go into production.

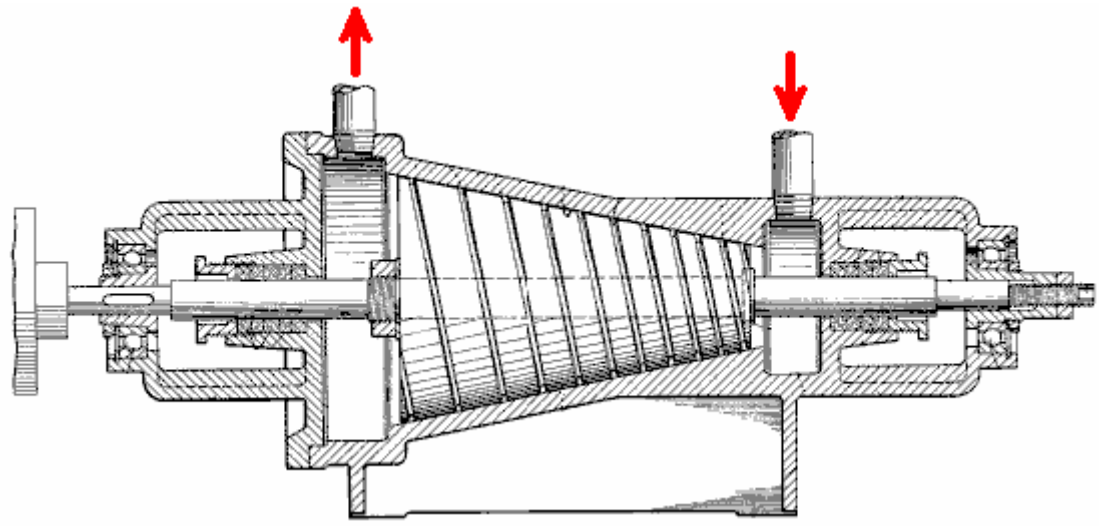
The motor is unusual in that it is a rotary turbine style design which runs at a temperature of 300^0F (140^0C) and because of that high temperature, uses cooking oil as its operational fluid, rather than water as the oil has a much higher boiling point. To a quick glance, this looks like an impossible device as it appears to be a purely mechanical engine, which will definitely have an operating efficiency which is less than 100%. Personally, I am by no means sure that this is a purely mechanical device as it employs both a conical shape and rotation, both of which have an effect on the energy in the immediate environment.

In broad outline, the oil is pumped through a pipe and into the narrow end of the cone-shaped rotor. The engine is started by being rotated by an external starter motor until it reaches the speed at which it generates enough power to be self-powering. The rapid spinning of the cone, causes the oil to run along spiral grooves cut in the inner face of the cone and exit through angled nozzles placed at the large end of the cone:





The operating pressure produced by the pump is 300 to 500 psi. Richard did not attempt to patent his engine as US Patent 3,697,190 “Truncated Conical Drag Pump” granted in 1972 as a liquid-asphalt pump is so close in detail that Richard felt that there was insufficient difference for him to be granted a patent:



This motor looks as if it may be a good candidate for both energy generation and heating.

5. **The Michael Meyer and Yves Mace Isotopic Generator**

I am assured that this system works very well indeed, although I don't have evidence of recent replications. I was contacted today by one person who is about to build and test the system, so additional information may be available shortly.

There is a French patent application number FR2680613 dated 19th August 1991 entitled "Activateur pour Mutation Isotopique" which provides some very interesting information. The system described is a self-contained solid-state energy converter which abstracts large amounts of energy from an ordinary iron bar.

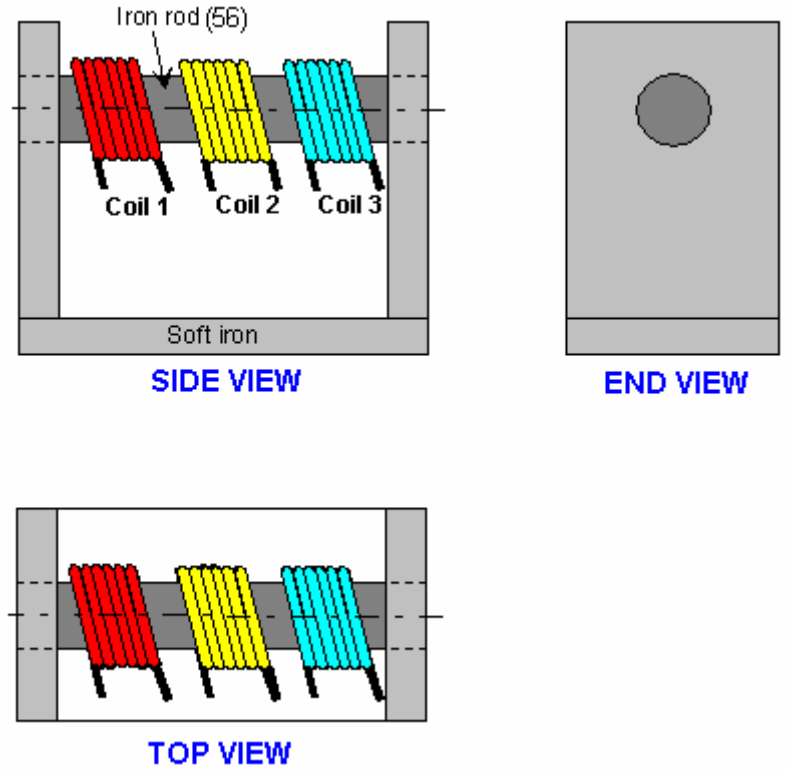
The inventors describes the technique as an "isotopic mutation effect" as it converts ordinary iron (isotope 56) to isotope 54 iron, releasing large amounts of electrical energy in the process. This excess energy can, they say, be used to drive inverters, motors or generators.

The description of the mechanism which is being used by the device is: "the present invention uses a physical phenomenon to which we draw attention and which we will call 'Isotopic Change'. The physical principle applies to isotope 56 iron which contains 26 protons, 26 electrons and 30 neutrons, giving a total mass of 56.52 Mev, although its actual mass is 55.80 Mev. The difference between the total mass and the actual mass is therefore 0.72 Mev this which corresponds to an energy of cohesion per nucleon of 0.012857 Mev.

So, If one introduces an additional 105 ev of energy to the iron core isotope 56, that core isotope will have a cohesion energy level of 0.012962 Mev per nucleon corresponding to iron isotope 54. The instability created by this contribution of energy will transfer the isotope 56 iron to isotope 54 causing a release of 2 neutrons.

This process generates an excess energy of 20,000 ev since the iron isotope 54 is only 0.70 Mev while isotope 56 has 0.72 Mev. To bring about this iron isotope 56 conversion, we use the principle of Nuclear Magnetic Resonance."

The practical method for doing this is by using three coils of wire and a magnetic-path-closing support frame of iron as shown in this diagram:



In this arrangement,

Coil 1: Produces 0.5 Tesla when fed with DC, converting the iron bar into an electromagnet
Coil 2: Produces 10 milli-Tesla when fed with a 21 MHz AC sinewave signal
Coil 3: Is the output coil, providing 110, 220 or 380 volts AC at about 400 Hz depending on the number of turns in the coil

This simple and cheap system has the potential for producing substantial energy output for a very long time. The inventors claim that this device can be wired to be self-powered, while still powering external devices. Coil 1 turns the iron rod into an electromagnet with it's flux channelled in a loop by the iron yoke. Coil 2 then oscillates that magnetic field in resonance with the isotope 56 iron atoms in the rod, and this produces the isotope conversion and release of excess energy. Coil 3 is wound to produce a convenient output voltage.

6. **The Coleman / Seddon-Gillespie "Battery"**

This is a very clever and compact power source, capable of delivering a kilowatt of excess power for a period of some 70 years. The device is a small tube containing a mix of innocuous chemicals which then become radioactive when given a short burst of high frequency electromagnetic signal. This allows the extraction of substantial amounts of electricity until the chemicals revert to their non-radioactive state.

Patent GB 763,062 gives the details:

This invention relates to a new apparatus for producing electric current the apparatus being in the form of a completely novel secondary battery. The object of this invention is to provide apparatus of the above kind which is considerably lighter in weight than, and has an infinitely greater life than a known battery or similar characteristics and which can be re-activated as and when required in a minimum of time.

According to the present invention we provide apparatus comprising a generator unit which includes a magnet, a means for suspending a chemical mixture in the magnetic field, the mixture being composed of elements whose nuclei becomes unstable as a result of bombardment by short waves so that the elements become radio-active and release electrical energy, the mixture being mounted between, and in contact with, a pair of different metals such as copper and zinc, a capacitor mounted between those metals, a terminal electrically connected to each of the metals, means for conveying the waves to the mixture and a lead shield surrounding the mixture to prevent harmful radiation from the mixture.

The mixture is preferably composed of the elements Cadmium, Phosphorus and Cobalt having Atomic Weights of 112, 31 and 59 respectively. The mixture, which may be of powdered form, is mounted in a tube of non-conducting, high heat resistivity material and is compressed between granulated zinc at one end of the tube and granulated copper at the other end, the ends of the tube being closed by brass caps and the tube being carried in a suitable cradle so that it is located between the poles of the magnet. The magnet is preferably an electro-magnet and is energised by the current produced by the unit.

The means for conveying the waves to the mixture may be a pair of antennae which are exactly similar to the antennae of the transmitter unit for producing the waves, each antenna projecting from and being secured to the brass cap at each end of the tube.

The transmitter unit which is used for activating the generator unit may be of any conventional type operating on ultra-shortwave and is preferably crystal controlled at the desired frequency.

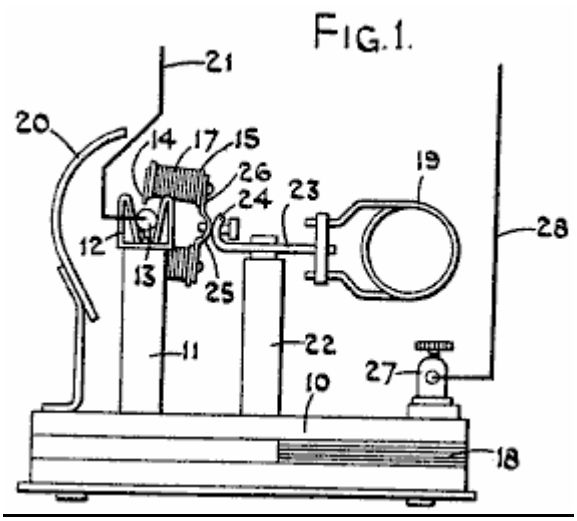


Fig.1 is a side elevation of one form of the apparatus.

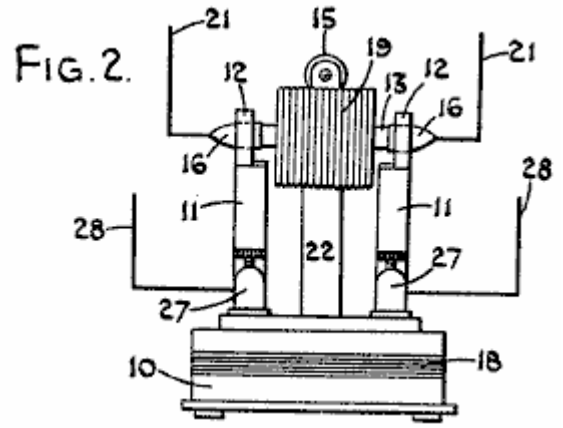


Fig.2 is a view is an end elevation

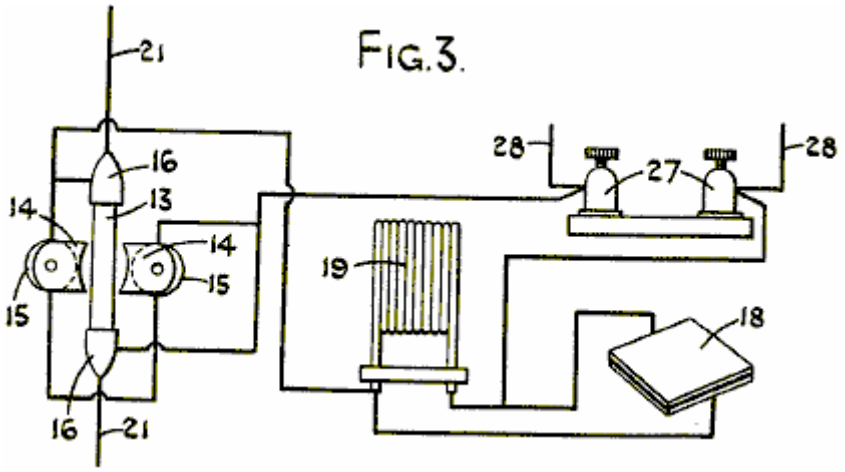


Fig.3 is a schematic circuit diagram.

The full details are at www.panaceauniversity.org/PatD13.pdf

7. **Hydroxy powered generators - Boyce / West / Lawton**

Another option for power generation is the use of a standard electrical generator which is powered by hydroxy gas from the electrolysis of water powered by its own electrical output. There are a number of cells which could be suitable for this - the Bob Boyce cell, the Zach West cell and the Dave Lawton Meyer replication cell. These all have the difficulty of keeping the cell signal tuned to the resonant frequency of the cell. The Boyce cell and the West cell both use potassium hydroxide as a catalyst, while the Lawton cell uses tap water.

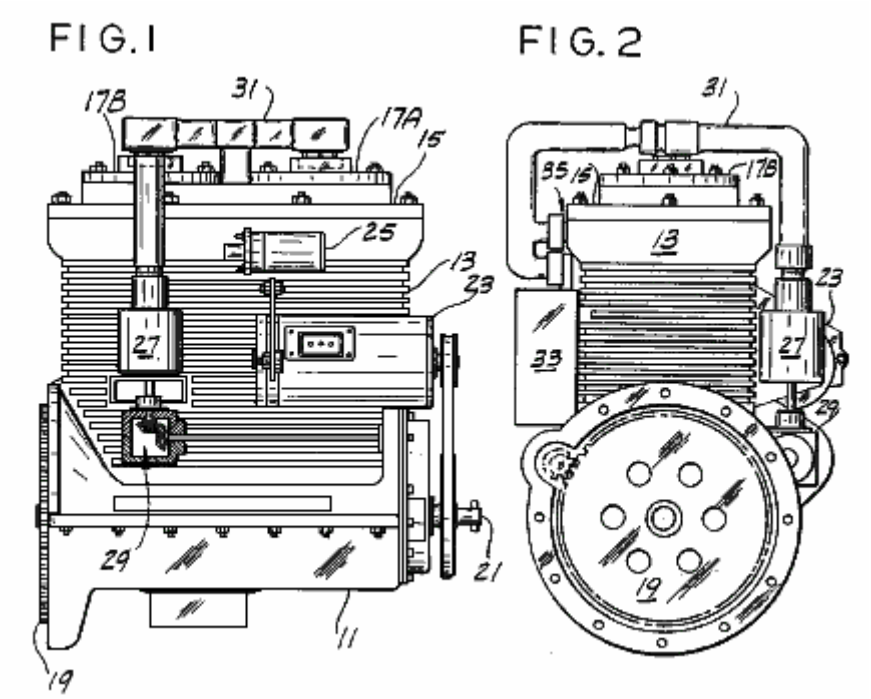
Additional issues are finding (or adapting) a generator which does not have a waste spark - that is, one which has the timing operated from the cam shaft rather than the cheaper option of taking the timing from the power output shaft, and being able to retard the spark timing by some 18 degrees.

Disadvantages for a production line are that the electrodes need to be cleansed and conditioned which is not a quick process and the Boyce cell (which has the highest efficiency at 1,190% Faraday) requires a high precision acrylic case.

Even with these provisos, there is a distinct possibility of producing self-powered electrical generators at realistic cost.

8. **The Papp Engine**.

This has been demonstrated repeatedly. The first demonstration prototype was a 90 horsepower standard Volvo car engine, modified to have the input and exhaust blocked off completely and the inside of the engine filled with a mixture of inert gases. This engine was demonstrated indoors for more than half an hour, producing 300 horsepower and using no fuel.



Details at www.panaceauniversity.org/D11.pdf

I don't wish to put forward any further suggestions as these are in my opinion, the most suited to self-powered commercial production with a seriously high level of output. I have omitted permanent magnet motors as you already have two excellent candidates already in China and producing them would be an excellent idea.

So to summarise:

Very highly rated for your purposes

1. The Chas Campbell system
2. The Tesla Switch
3. The Phi Transformer
4. The Clem Motor
5. The Michael Meyer and Yves Mace Isotopic Generator
6. The Coleman / Seddon-Gillespie "Battery"

Possible candidates for your purposes

1. Hydroxy powered standard electrical generators
2. The Papp (or Britt) Inert Gas Motor