

# Questions and Answers

This is a fast-moving field of research and development, and one where a single person working alone, can outperform research establishments with unlimited budgets and many staff members. If you believe that the answers given below are inadequate or incorrect, then please tell mw as this is definitely a learning process for all of us.

## Topic: What to Build

I am regularly asked to recommend a device for someone to build. This is an impossible task as the person asking never says in which part of the world he lives, how much money could be used in the project, what tools are to hand, what workshop space (if any) is available, what local supplies of materials is like, whether the home is in a city or an isolated remote place, local assets like a shoreline, a fast-flowing stream or lots of sunshine all year round, how much ground space is available, what his skills are, etc. etc.

What should be realised is that a small group of friends can achieve a great deal. If one person likes working with engines and another can fix television sets and a third can weld, or ... whatever. By working together, they can achieve a great deal and benefit both themselves and their friends, not to mention having a good deal of fun in the process and ending up with a great sense of achievement.

We should not dismiss the various forms of renewable energy such as wave power, RAM pump, solar panels, wind power, biomass and the like. Granted, they do not always provide power all of the time, but if they provide most of the power you need for most of the time you need it, then that can be a considerable saving on your present power costs, so you should consider the devices covered in chapter 14. One possibility is to use a RAM pump with a fast-flowing stream, to pump water up into a water tower over night, and use the tank of water to power a turbine driving an electrical generator when needed.

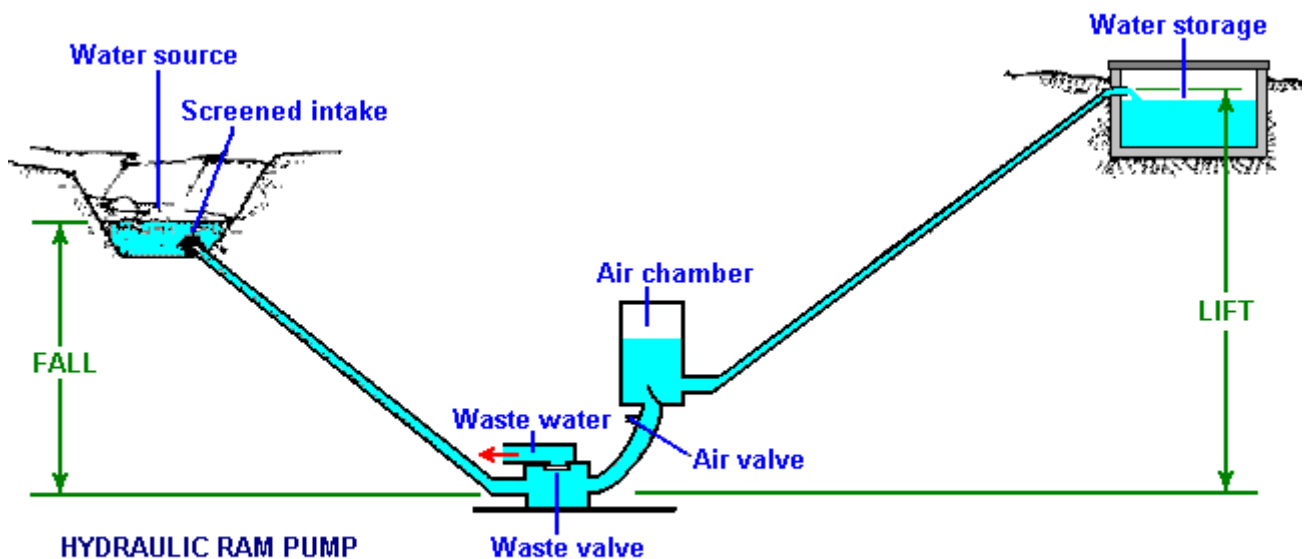
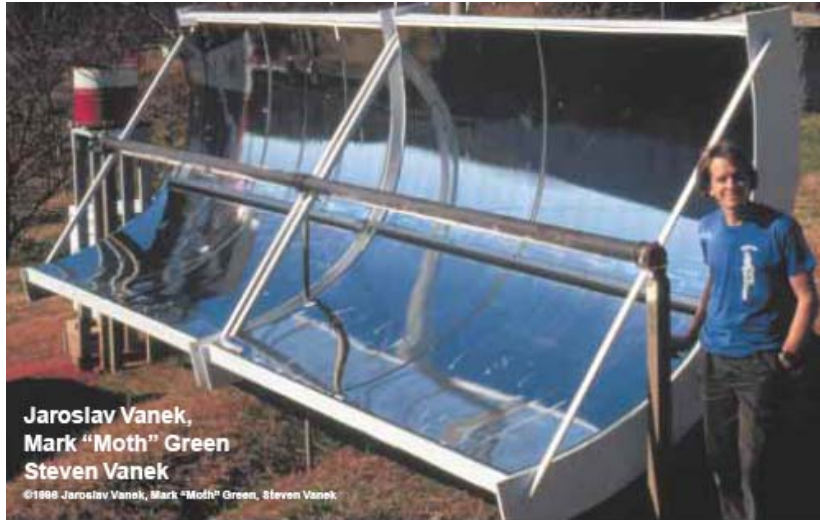


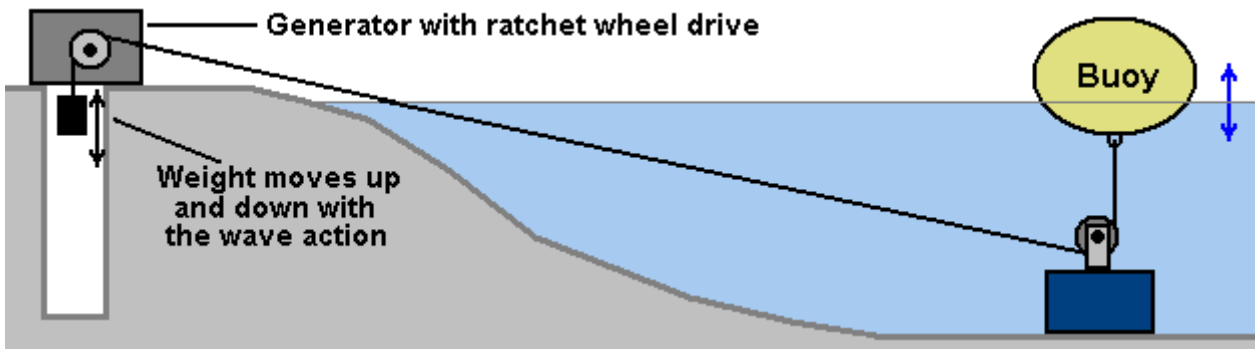
Diagram from: [www.thefarm.org/charities/i4at/lib2/hydrpump.htm](http://www.thefarm.org/charities/i4at/lib2/hydrpump.htm)

If you have the space and the sunshine, then a parabolic mirror can focus the sunshine, produce steam and drive a generator, a mechanical drive, a pump, or whatever else is needed.



Above: Steven Vanek with his machine which uses solar thermal energy to make ice.

If you are lucky enough to have access to a small section of coastline, then using either wave power or tidal power gives a major amount of power each year with even a simple low-tech construction like this:

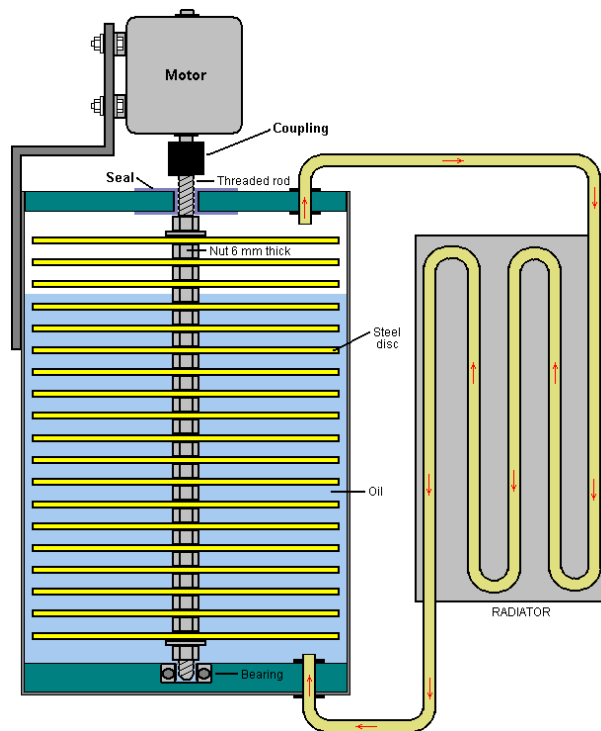


It is not necessary to "go for broke" and aim at a device which will completely do away with your power needs for evermore. Initially, it can be a major step forward to produce a device which reduces your energy bill by a good deal and later on, progress to an additional system which makes you fully independent of others. For example, it is perfectly possible to drive a RotoVerter (chapter 2) with a solar panel:



The output is much more powerful than the input from the solar panel and can be used to run power tools, charge batteries or perform other useful tasks at effectively no cost at all.

The Frenette heater (chapter 14) does give significant heat output for the modest power input needed to spin the central shaft. It is a simple construction well within the capabilities of most people, and it could be driven by a solar panel if you live in an area where it is cold and sunny. As the array of discs spin, the vegetable oil inside the cylinder gets heated and pushed upwards and outwards, flowing through the radiator tubing, heating the house:



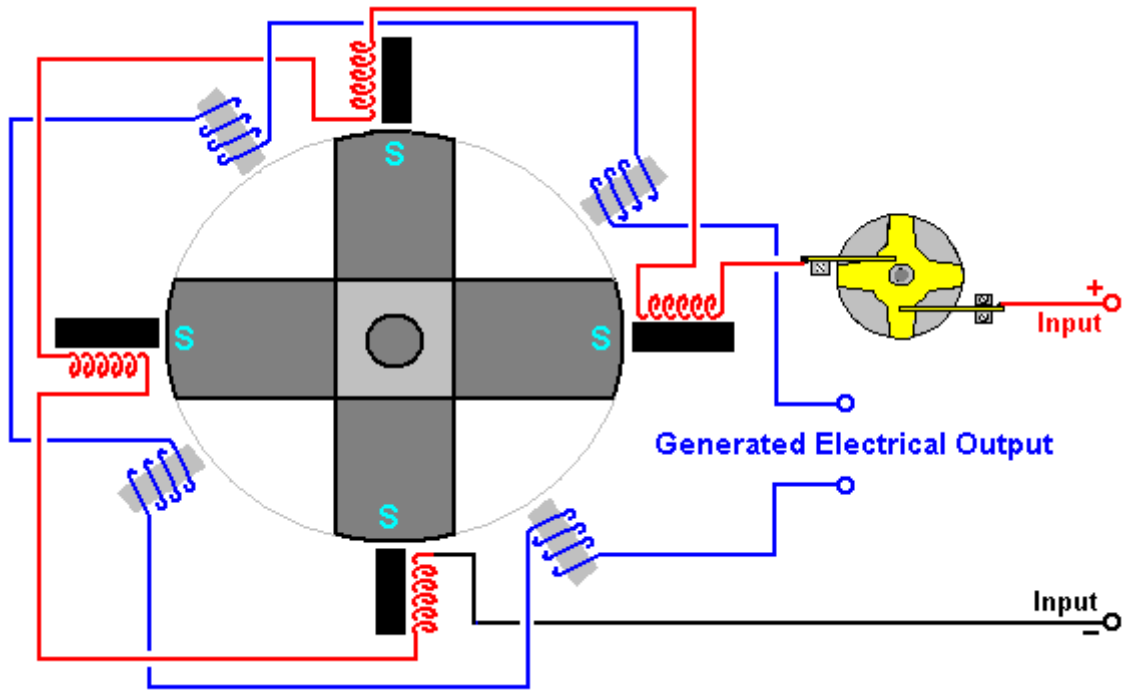
There are many high-performance alternatives which need special skills or equipment to build, but these can be found and constructed by those people who have above average skills and workshop facilities.

Devices which can provide power at any time, and at any location, include running a standard electrical generator with water as the only fuel (chapter 10). Strictly speaking, the generator runs on energy drawn from the environment and not on water which itself is not a fuel, but as water is fed to the engine, it appears as if the water is a fuel although it actually is not a fuel.

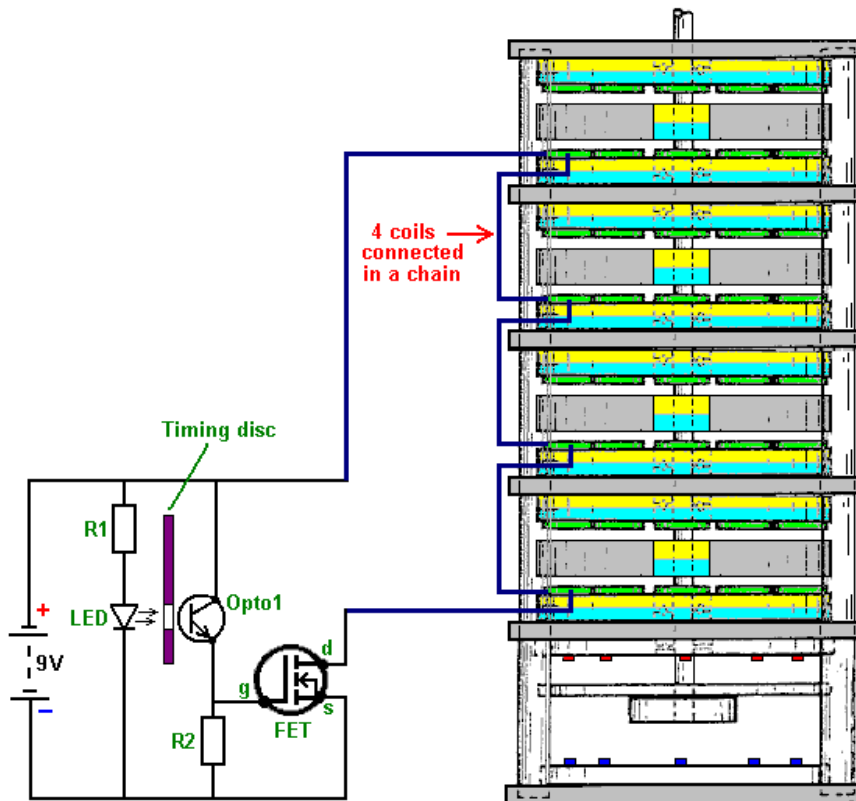


While it is perfectly possible to run this type of generator with water as what appears to be the only fuel, it must be realised that a generator of this type produces noise which will not be acceptable for neighbours if the user lives in a congested city environment. Admittedly, a suitable housing with many carpet-covered baffles would allow good air flow and cooling while reducing the noise to very low levels, but generally speaking, this is a solution for people who like working with internal combustion engines and who live some distance away from other people.

The Adams motor (chapter 2) when accurately built, can produce eight times as much output power as the power needed to make it operate. This is a good energy gain and the device is not difficult to build:

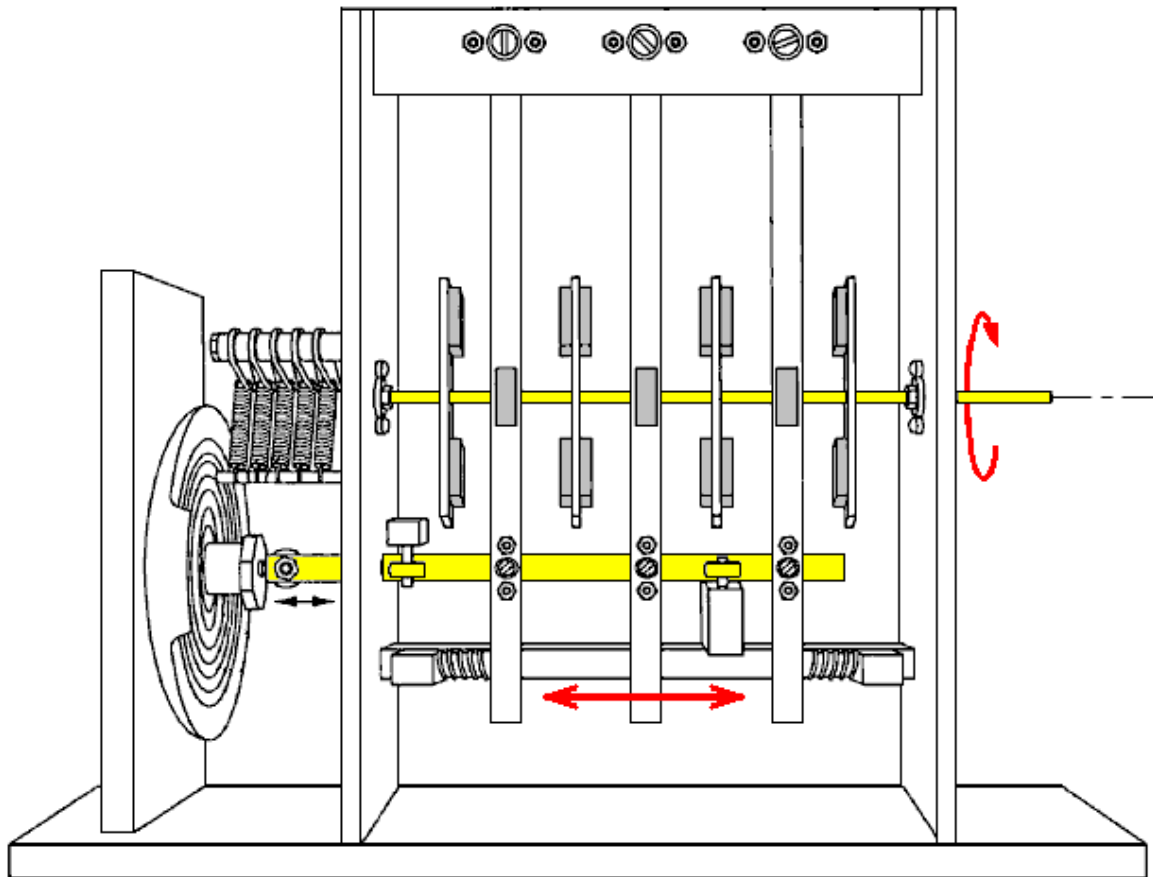


Another device which is not hard to build is the Charles Flynn magnet motor (chapter 1):



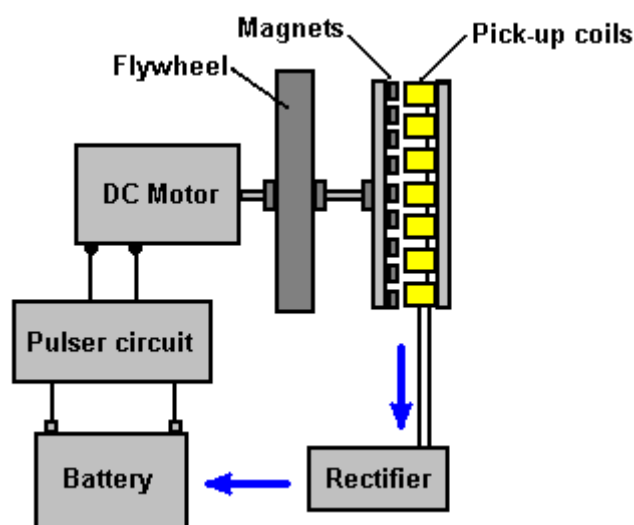
And if the electronics used to drive it is something which you have not come across before, then chapter 12 shows you how to understand and make these kinds of electronic circuits. A motor of this type can be made to produce any amount of power. Flynn's prototype ran at 20,000 rpm driven by just an ordinary 9-Volt dry cell battery. A big advantage with a motor like this is that you understand exactly how it works, and as you built it in the first place, if it ever breaks down, then you can fix it.

Another possible simple project is the Kundel magnet motor (chapter 1). Using just a simple rocking arm movement, powerful shaft rotation is produced. That rotation can be used as a mechanical drive, or to spin magnets past wire coils to produce electricity:



This motor operates by moving the magnets on the rocker arms, away from the rotor magnets when they would oppose the rotation and closer to the magnets on the next rotor which would promote the rotation. The rate at which the loudspeaker cone electromagnet is driven by an electronic circuit, controls the speed of the motor.

Another device which can supply extra power is John Bedini's pulsed flywheel (chapter 4). The objective is to apply a pulsed drive to a heavy flywheel. Each pulse acts as an impact, providing excess power to the flywheel. John had a small one of these running in his workshop for more than three years.



The DC motor is pulsed by a simple electronic circuit and the flywheel spins permanent magnets past a circle of coils of wire. The voltage generated in the coils is converted with four diodes to produce a pulsing DC voltage which can charge the battery and do additional work as well.

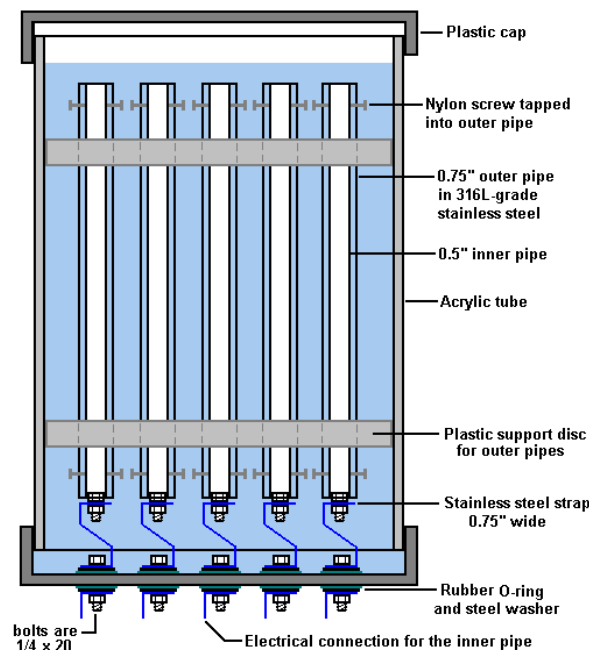
The output from a device of this nature depends on the size of the device. Jim Watson built one which was twelve feet high and he got 12 kilowatts of excess power from it. Obviously, I would not suggest that you build one as big as that, but perhaps one of say, three feet in diameter might have a very useful output. You have the option of wiring the coils in a chain in order to have a higher voltage output. If you do that, then have the same number of coils as permanent magnets so that they all pulse at the same moment. Alternatively, if you want to use magnets mounted with every second one having a different pole facing outwards and still have the coils in a chain, then have twice as many magnets as coils.

A similar wheel-pulsing method is used in the water-jet generator (chapter 4) which looks like a very simple thing to implement. Here, a jet of water provides a jerky drive to a wheel when the jet of water hits paddles attached to the rim of a wheel, geared through to an electrical generator.



<http://www.youtube.com/watch?gl=GB&hl=en-GB&v=zlinM1wAl5U> has a video showing this arrangement in operation. If you decide to build it then please arrange for an external change-over switch located in a dry area outside the box for switching the pump over from the mains supply to the output from the generator as that is not something which should be done with a plug and socket in a wet area.

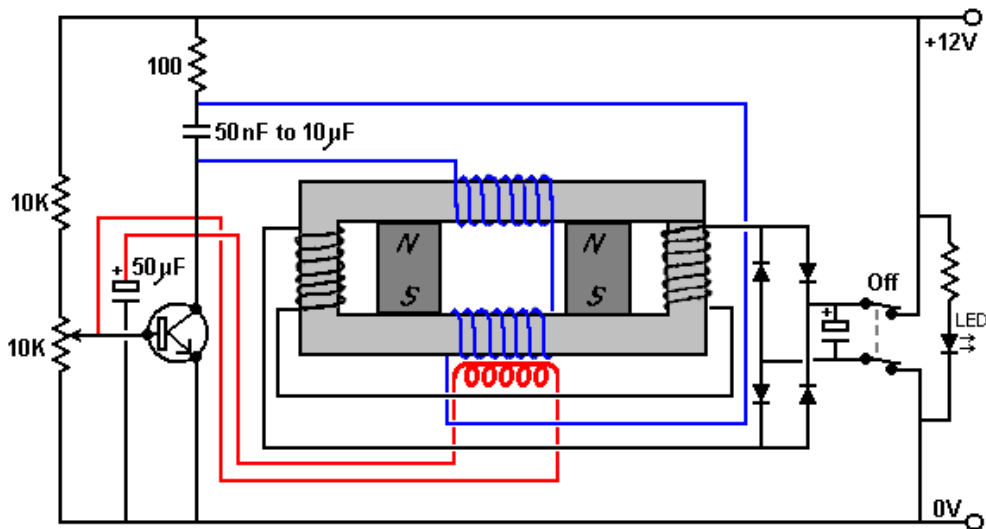
Moving to a somewhat more difficult, but quite possible project. Dr Scott Cramton's version of Dave Lawton's electrolyser (chapter 10) is capable of generating a serious HHO gas output of 6 litres per minute of high quality gas for a very small power input.





This project needs patience as each of the tubes needs to be filed down so that they all resonate at the same frequency. Some minor electronics needs to be built and the pipes either conditioned or alternatively, insulated. The gas output can be used for heating, welding, cutting, cooking, boosting a vehicle or running a generator on water.

If you would prefer a minor project just for interest sake, then perhaps the simple self-powered circuit from Stephan W. Leben "The Guru2U" (chapter 3):



This simple circuit is started running by connecting a twelve volt battery across the terminals, causing the large diameter Light-Emitting Diode to light up. When the battery is removed, the LED stays lit up because the circuit has become self-powering. While, at this scale, this is not a particularly useful project, it is an interesting one because conventional science says that it is quite impossible to do this.

If you decide to start some project, then whatever project you pick, the most important thing is that it should be one which interests you. You will notice that the projects suggested here generally have moving parts which make it easy to see how the device is operating. The more difficult projects where there are no moving parts and meters need to be used can be left for a later time. If you decide to build something, then let me wish you good luck with your project.

### Topic: Electrolysis

#### Question:

I was reading the D9.pdf file you put together on Bob Boyce's electrolyser and PWM3G circuit. The close up picture of the PWM3G circuit shows only 5 LED lights but below under the **Testing the Completed Board** section it talks about 8 LED lights. also on the animated picture (the one with all the components on the board) there are 8 led lights. did bob build another type of board with fewer LED's on it? If so could you explain how to test the different board? Also I was considering buying the board from the Hydrogen Garage website, would you recommend this?

#### Answer:

The D9 document was created long before the 3G version of the board was produced. The version shown in the document is only there to give an impression of what the board was like at the time. Bob has always been reluctant for any specific details of his circuits to be published which is why the circuit schematic is not shown in the document.

The supplier of your board will tell you how to tune it. I would not expect it to be a different method. Essentially, you start with the frequency variable resistors in their central position and the Mark/Space resistors set to about 10% On time. Then you tune the top frequency of 42.8 kHz to give the best gas output. You then adjust the middle frequency to give the best gas output. Finally, you adjust the lowest frequency channel to give the best gas output. The Hydrogen Garage in the US or Courtierstown Marine in the UK can advise you.

The Hydrogen Garage is run by a very honest and reliable electrolysis enthusiast with many years of practical experience behind him, and there is no reason why you should not buy from there if you want to.

**Question:**

OK, so if I want to build one of those boosters and I have 14.8 volts in my car how am I going to power 18 plates 5" x 4". That's the only thing that's confusing because there would not be enough voltage

**Answer:**

I'm not sure where the idea of 18 plates came from. It is likely that your electricians give 13.8 volts rather than 14.8, although that is not critical in any way.

You are aimed at seven cells in a chain so that each cell gets about 2 volts across it. If you put partitions in your box, then with your proposed current you would use just two 5" x 4" plates per cell - a total of 14 plates. If you wanted to provide more plate area, then you would use three plates per cell, making 21 plates.

However, if all your journeys are short and the cell will never get up to its full temperature due to the short time it operates, then you could go for just six cells and with three plates per cell and that would make 18 plates.

If you use separate plates, then you have the difficulty of making good-quality electrical connections between six pairs of plates, and that can be quite difficult to do. I would suggest that you consider the bending method shown at the start of Chapter 10 as that overcomes the need for making any electrical connections inside the cells.

The best plate performance is with two to four square inches per amp of current. As only bending is involved, it would pay off to have a generous plate area, especially if you are using mesh. Mind you, the mesh surface area is not much reduced by the holes as the surface around each hole as it passes through the thickness of the plate is also active. The hole edges are also very helpful in getting the bubbles to break away when the cell is new. Later on, when the cell is conditioned, the bubbles will not stick to the plates at all.

**Question:**

Is it possible to generate electricity using hydroxy gas?

**Answer:**

Yes, it is perfectly possible to generate electricity using hydroxy gas:

1. Take a standard electrical generator such as a Honda 6.6 kVA V twin or a Vanguard V twin.
2. Adapt it by filling in the timing key slot and cutting another which lets you set the spark timing to two degrees after TDC.
3. Build any electrolyser capable of producing 5 lpm of hydroxy gas.
4. Feed the generator air, hydroxy and cold water mist from a Venturi tube, pond fogger or miniature carburettor.
5. The generator can run well on that and produce kilowatts of excess electricity over and above the amount needed to power the electrolyser.

This has already been done on at least nine different generators and run 24 x 7 for two and a half years now. However, please be aware that generator engines wear out eventually and will need a rebuild or replacement, so the electricity produced is not "free".

**Q:** What mmw (efficiency) rating of hydroxy generation is need to achieve this? Also, is it necessary to be using some type of resonance system or will brute force/catalytic electrolysis work?

**A:** You can use any type of electrolyser you like. Unlike the alternator in a vehicle, a generator is designed to put out a major amount of electrical power on a continuous basis. So, if you take half a kilowatt or more generating the hydroxy, who cares? If the generator is called a 5.5 kW by the manufacturer and you wish to run it at 4.5 kW assuming that the seller is being generous with his rating in order to compete with other brands, then if you use 0.5 kilowatts (12V at 40 amps) for electrolysis you are definitely in business. The two makes of generator quoted, have proven very reliable in long-term use. The addition of very tiny cold water droplets is a key factor in making this work.

**Question:**

Do you know if the V-twin Vanguard and Honda generator you have mentioned, do not have the waste spark? I would like to buy one, but need to make sure before doing so.



**Answer:**

The people who have done these conversions say that retarding the spark to 2 degrees after Top Dead Centre was sufficient. Never having worked on internal combustion engines, I can't personally confirm it myself from my own experience.

If you decide to do it and are successful (as I would expect), then I would be happy to produce a document for you which would go out under your name. If you decide to do that, then please take photographs before, during and after your filling in of the timing key slot and the cutting of the new one as that is one item which would benefit from having detailed pictures. Supplier details for the cold water mist device which you pick, be it pond fogger, Venturi tube or miniature carburettor, would be helpful for others following after you.

**Question:**

Do you have any values for Peter Lowrie's coils, the ones mentioned in the doc are "from a commercial installation with copper sheet wrapped around them" as it is my intention to use a Marine alternator.

**Answer:**

There are two different techniques for producing hydroxy gas:

1. Pulsed DC signal which can reach 1,200% Faraday.
2. Brute force DC which is usually less than Faraday although with great care, it can reach 212% Faraday.

Peter Lowrie used a marine alternator solely because he wanted three separate 2-volt supplies at 900 amps each. It was because of his very high current that he used an industrial 3-phase power supply choke. Unless you are aimed at currents that high, then you definitely don't need chokes of that massive current capability.

If you are determined to use a similar item, then you need to look at the spares options for professional, commercial equipment. Peter only used a marine alternator for its very high current producing capability and he told me that a second-hand truck alternator would do just as well.

**Question:**

You said...

"When that gas is added to gasoline droplets in a gasoline engine, it acts on those fuel droplets during the compression stroke, breaking those long chains of hydrogen and carbon atoms into shorter, more active fragments of chains. This produces more active and better combustion of the fuel when it is ignited by the spark, and that extracts more energy from the gasoline, energy which would have been wasted in the catalytic converter and in producing unwanted excess heat in the engine".

This is the first time I have heard that the Hydroxy is doing something BEFORE it is ignited. I thought the Hydroxy ignition was what was breaking down the gasoline into short molecules? Can you explain this more?

Also, can you email me here or privately what you feel are the best Free Energy Devices these days. I think many may be interested in Free Energy Devices to drive their electrolyzers. I'm interested in the devices themselves. Also, is anything near to coming to market?

**Answer:**

On 14th January, Bob Boyce's post to his Hydroxy forum included the statement: "When either hydroxy gas, or HHO, is compressed in an engine cylinder, it is after it has been diluted with intake air, as well as fuel in non-diesel engines. Not only does the dilution in air raise the auto-ignition pressure, but in non-diesel engines the orthohydrogen has already bound to the long hydrocarbon fuel chains and broken them prior to compression. As this bonding occurs, orthohydrogen decays to parahydrogen. It is the energy from this decay which breaks the hydrocarbon chains into simpler hydrocarbons. These simpler hydrocarbons combust much more efficiently and completely. With diesels, the process is slightly altered, as there is less time for bonding to occur, so improvement occurs much better at lower RPM than at higher RPM".

Gasoline molecules vary from chains of seven carbon atoms surrounded by sixteen hydrogen atoms, to chains of nine carbon surrounded by twenty hydrogen atoms. These chains need to be broken down in order for those hydrogen atoms to combine with oxygen atoms from the air in the cylinder, to produce the heat and expansion which powers the engine. That is why the spark is generally about eight degrees before Top Dead Centre, giving time for this to happen. The more broken up those chains are before the spark, the better.

With regards to free-energy devices, I get asked on a regular basis, what device is best for somebody to try

building. The question always comes without the relevant details needed to even make a rough guess at a realistic answer. There is generally no information on country, skills, tools, finance, workspace, time available, main objective, local materials available, environmental space, etc. etc.

Obviously, if someone has converted a pick-up to electric operation and could put a water-fuel generator in the back, the kilowatts of excess electrical power would extend the battery range substantially and would recharge the batteries during a meal break or while away from the vehicle.

To try and avoid saying the same things over and over again, I produced a document with my suggestions in it. It is called "Questions.pdf" and is on my websites, such as [www.free-energy-info.com](http://www.free-energy-info.com) so I suggest that it might answer your question, although almost everybody will have a different opinion.

There is massive opposition to any free-energy device being brought to market. Shenhe Wang intended his permanent magnet motor/generator design to be given freely to all countries in the world. I always felt that he had to be completely unaware of how governments who get billions per year in oil taxes and utility company taxes, would view such a venture, not to mention the oil companies who would see their massive revenue stream being threatened by the introduction of a small device which can output kilowatts of electrical power without using any form of fuel. At this time, it appears that Shenhe's generator is being restricted to China, which hardly comes as a shock.

Chas Campbell in Australia has a viable, commercial machine which also produces significant power without the need for any fuel. He can't find anyone interested in manufacturing it and his local power company just doesn't want to know. There are several devices which could readily be brought to market at this time, but I am not aware of any planned commercial launch planned for the immediate future.

**Question:**

I have bought a 7-cell, series-connected electrolyser but the terminals are not marked for Plus and Minus connections. Does it matter which way round it is connected?

**Answer:**

Any series-connected electrolyser will operate well when connected either way around. However, there is an effect if the unit has already been run. If you are aiming for the top level of efficiency of DC electrolysis, having prepared, cleansed and conditioned the plates with Bob Boyce's methods, then the plates will have been conditioned with the current flowing in one direction. If the direction of current flow is reversed on Meyer type cells the conditioning reverses, the performance drops off and then the conditioning rebuilds, bringing the performance back up again. I am reasonably sure that the same thing happens in a Boyce conditioned electrolyser, so if at all possible, try to identify which way round the unit was originally connected and keep to that direction of current flow.

**Question:**

In Bob Boyce's electrical diagram, it shows three heavy-duty chokes: one from the rectifier bridge positive, one on the negative and one from the positive line to the circuit board. My question is: "what is the value or specification for these chokes and where can you find them?"

**Answer:**

There is a document called "D9.pdf" which provides the details of Bob Boyce's resonant electrolyser design. On page 30 of that document, immediately under the circuit diagram it tells you the choke core, the supplier of that core, the wire used to wind the choke and the number of turns to be wound on the core.

**Question:**

What size hose would be required to run a V-8 on all hydroxy? Does anyone have a flow chart for gas, or know were to find/get one?

**Answer:**

It is not possible to answer your question directly as we don't know what rate of gas flow you think would be needed or how long the pipe has to be. There is a table of pipe sizes for various gas flow rates on the web site: [http://www.engineeringtoolbox.com/natural-gas-pipe-sizing-d\\_826.html](http://www.engineeringtoolbox.com/natural-gas-pipe-sizing-d_826.html) and as 1 cubic foot per hour is about 0.15 litres per minute, if you were feeding the engine 150 lpm, then the table entry would be 1000 cu. ft./hr. and you would be looking at the nominal pipe size of 1.25 inch inner diameter. My guess would be a 1.5 inch pipe as the less restriction to gas flow the better. If you want to get a feel for the capacity of any particular diameter of pipe, then try blowing through it. The results are surprising and a small pipe around a quarter of an inch in diameter (6

mm) is incredibly difficult to blow through in spite of looking like an easy gas-flow path.

The amount of gas needed for your engine is reduced massively if you add cold water mist to the intake air. Nobody can answer the question for you because engines vary so much. Even supposedly identical engines have very different gas requirements, so you really need to experiment with your engine to discover what it actually needs. There is some cold water mist information in Chapter 10.

**Q:** Thank you for that chart, it's just what I was looking for. Now that I know what size of pipe can carry any particular gas-flow rate, I guess the real question is "how many lpm would it take to run a 318 cubic inch Dodge motor?" I read somewhere that it takes 80 litres per minute per 100 cubic inches of engine capacity. I may have got that backwards. Any thoughts?

**A:** Unfortunately, there isn't any fixed answer to your question and you definitely can't use a rule of thumb to get a reliable answer. Using cold water fog from a pond fogger reduces the amount of hydroxy gas needed by a large percentage, so try reading Chapter 10 which explains this. You need to understand the operating principles if you are to be successful. Also, you have a much easier task if you start with an engine which is much smaller in size, so I suggest that you begin with an electric generator of about 6 kilowatts as described in Chapter 10 before trying to run a very large engine of 318 cubic inch capacity (5.21 litres), which is about twenty times more difficult.

**Question:**

I am trying to make different devices in order to improve gas mileage on my car. However, I have some difficulties in understanding the automotive circuits. Could you, please, help me?...

I found in Tad Johnson's experience this: "What I found frustrating is that the cell temperature would change and the system would stop making gas. In order to keep the system making gas you constantly have to keep the cell in resonance, and thus you really need the system to be controlled by a processor, that constantly checks frequency on both legs and then adjust inductance to keep the cell in resonance. This is why Stanley moved to the other patents where the spark plug type of electrolysis chamber was used instead of a large cell."

In this case you gave me a clue in this paragraph: "A John Bedini pulser circuit can be used very effectively with a cell of this type and it adjust automatically to the resonant frequency as the cell is part of the frequency-determining circuit."

First, I didn't find in your book a Bedini pulser circuit so please give me direction where I can find it.

Second, in Stan Meyer's large cell, I understand, we have two kinds of resonance. One resonance is in an LC circuit where the "C" is the cell itself and the coil is the "L". This is electronic resonance. Another resonance is mechanical resonance where the tube pairs vibrate at the same frequency as the electronic circuit (or a harmonic of that frequency). In this case if I make a device to check the current of the cell, this device can adjust the frequency to be identical with the frequency of the tubes, because the current is in direct relation with resonance. If I am wrong, please let me know.

In your book there is a quotation which says: "I plan to market a pre-programmed chip capable of making any hydroxy system work. While I plan to have a profitable venture with the professional pre-programmed architecture, I also believe in the open source do-it-yourself community, which is where I got started. The chips I plan to sell will be a 'plug and play' device. You send me the info on the type of vehicle you are modifying, and the efficiency data of your cell, and I'll be able to send you a chip that will make your ECU work with those conditions. The Do-it-yourself version would be quite time consuming but, would work for less than one quarter of the price." I may be interested in buying the chip if you let me know the price before I order it.

**Answer:**

Tad Johnson used 1,200 volts and was able to get 3 lpm of hydroxy gas at just 1 milliamp of current (1.2 watts) but he found that he could not scale it up for greater gas output.

Chapter 10 has a circuit which finds and holds a cell on its resonant frequency and that circuit will be available ready-made from Courtierstown Marine in the near future. The Stan Meyer "Water Fuel Cell" has been replicated by Dave Lawton of Wales and the full construction details are in Chapter 10. Further advances have been made by Dr Scott Cramton who is getting 6 lpm on just 12 watts of input energy (plus the waveform from the generator which he is boosting - probably 36 watts overall - 12 volts at 3 amps) and who can reduce the diesel requirement of any diesel engine or generator by 60%. Chapter 10 also shows how to run an electrical generator on water alone.

The ECU piggyback chip details are found in the [www.free-energy-info.com/D17.pdf](http://www.free-energy-info.com/D17.pdf) document and it is Les Pearson of the USA ([lespearson@hotmail.com](mailto:lespearson@hotmail.com)) and not myself who is dealing with piggyback chips. I am located

in the UK and European vehicles have a completely different computer control system to the ECUs of vehicles in the USA.

**Question:**

My project is to deliver HHO to a Mazda turbo rotary with 13 lbs boost. I'm not comfortable about injecting HHO into the low-pressure side of the turbo. Even though it's mixed with incoming air, the turbo radial scroll is a wicked device with lots of sharp blades and turbulent flow. The discharge air at full power can reach over 300 degrees Fahrenheit and easily exceed the 13 lbs boost to compensate for losses. This pressurised air charge is sent to a double-pass intercooler before going on to the manifolds. A violent, hot, and long path. If the HHO survives the journey it has definitely reverted to diatomic.

I need to know what to expect if the HHO can leave the bubbler/dryer and move directly to a diaphragm compressor (premixed and diluted with air, if necessary) for direct port injection at 20 psi. What data are available to show auto-ignition at 15 psi? What temperatures, concentrations, method of compression, etc. If I can't up the delivery pressure for direct port injection, I might consider stopping development of my prototype. Please, there must be a safe way to do this???

**Answer:**

This subject has come up several times on the different forums and the experienced people recommend putting the hydroxy in on the low-pressure side of a turbo-charger. The hydroxy gets heavily diluted by being mixed with the incoming air and so its characteristics change before it reaches the potential trouble spots which you mention. I am not an automotive expert and so can't make any useful comments from my own experience.

One or two people have tried putting it in on the high-pressure side and have found it ok, but it is distinctly possible that their hydroxy gas was low-grade and already laced with hot water vapour, lowering its energy level and potential hazard, so my money is definitely on the low-pressure side.

The self-ignition at 12 to 15 psi information comes from Bob Boyce who is easily the most experienced hydroxy user and investigator on all of the forums. That figure relates to Bob's hydroxy which is the highest possible quality and most people never manage to get anything as high-energy as Bob's gas output. The information comes from repeated experiments by Bob who just lets the pressure build up and then notes the pressure at which it explodes inside his container which is strong enough to withstand the explosion.

**Q:** Thank you for your quick reply. I am due to meet with Bob Boyce next week. I hope he will have the time (and patience) to deal with my newbie questions but I intend to drill down on this turbocharger thing. For my project, it's mandatory that I run with a turbo, and mandatory that I can feed the maximum amount of high quality HHO. This engine will be developing 400 hp with 13 lbs boost. I think I'll be defeating my purpose if trying to push maximum amounts of HHO into the low pressure side of the intake. First, it will partially displace the necessary air for combustion. Second, it has a torturous route to travel. Third, it will no longer be monatomic HHO when it finally reaches the engine. There must be a better way.

That's why I was hoping to experiment with a medical diaphragm compressor (same as they use to store hydrogen). If I can blend some outside air with the HHO prior to compression, maybe Bob can tell me what ratio of air/HHO to offset/raise the self-ignition. I'm only looking for 20 psi so maybe the dilution won't be a big deal. Anyway, I'm trying to maintain the purity of the HHO prior to engine combustion.

**A:** Bob Boyce, who is a very highly experienced hydroxy researcher, states categorically, that you should use the low-pressure side of the turbocharger. I am reasonably certain that there is no need for you to pre-mix the hydroxy and air as that happens adequately during the normal intake process, but Bob can certainly give you much more specific detail on this than I ever could. The pressure for self-ignition is raised enormously when the hydroxy is mixed with air, so it should not be a problem in your case.

The objective is to extract a higher proportion of the energy contained in the normal hydrocarbon fuel, and not to add in energy produced by the combustion of hydroxy gas. That being the case, the amount of hydroxy does not have to be enormous for there to be a very significant gain in engine power and thrust quality. Again, Bob is the man to give you the specifics. Good luck with your project, and I hope your visit to Bob works out well.

**Question:**

I'm spending my day watching YouTube videos of Bob Boyce. It seems every minute I'm learning more and more. Big problem for me is (-40) cold weather and freezing of the water when not in use. (Canadian winters are brutal). The bubblers can be filled with KOH, no problem there. Same with the main cell if I use KOH. But

the biggest problem is the water reservoir and supply lines. I had thought of 50/50 blend of methyl hydrate/water (windshield washer fluid) but, according to one of Bob's videos, the carbon will bond with the nickel in the stainless steel plates and eventually stop gas production (sigh). If I had a consistent and reliable electrical power source, I could just plug in a heater of some fashion, but I won't always have that luxury. Any thought on the subject??

**Answer:**

Please do NOT put KOH in your bubblers as a major function of the bubblers is to wash all traces of KOH out of the gas before it reaches your engine as traces of KOH are not good for your engine. You can use alcohol or paraffin ("kerosene" in the US) which many Canadians have found satisfactory in bubblers as the fumes are not harmful to your engine in any way. If you are boosting, then the water usage will be so low that you can manually top up with warm water from time to time.

**Question:**

I have watched the interview of Bob Boyce with Chris Patton countless times, even now, looking for signs of 'bullshit'. I have a good intuition which I trust and listening to Bob I can't help but like the guy and still believe every word he says. I'm a plumber and have no previous experience with hydrogen. I've built a 101 plate electrolyzer following your plans and I'm getting 4 lpm when using 190 volts DC and about 4 amps of current.

I've wound my toroid and just run out of money for a scope to try to get the resonance. I've noticed that no one seems to have ever replicated what is described on your website and that Bob is copping it on the forums. I believe him still, but I was wondering in your opinion why is it that no one has managed to get 50 lpm or anything mind blowing? Where could the problem be? I'll tell you one thing though, I'm gonna keep at it as soon as I can afford a scope.

**Answer:**

Resonance is very important in any COP>1 system, which is what Bob Boyce's hydroxy system is. I'm not sure about your need for an oscilloscope, but don't let me discourage you from getting one. If you have not seen them, the series of YouTube video clips on resonance <http://www.youtube.com/user/gotoluc#p/u/15/L0AZkovLTT8> should be both interesting and helpful.

Dave Lawton has designed and tested a circuit which finds and locks on to the resonant frequency of his style of cell. That circuit is available as a pcb, a kit, or a ready-made unit from Courtierstown Marine in Aberdeen.

However, Bob Boyce's design calls for three drive channels instead of just one. Bob has designed, built and tested what he calls his "Hex Controller" which is probably a PIC chip programmed device. He has kept it secret while he applies for a patent on it, but it should become commercially available shortly. I understand that like Dave's design, it locates and locks on to the resonant frequency of the cell.

When not tuned to resonance, the pulsing system should give about three times the gas output of the DC cell performance. When tuned to resonance, the increase should be five or six times.

As you are probably aware, the electrolyser needs to have the plates cleansed and conditioned as described in the D9.pdf document on Bob's unit. Then the cell needs to be "run-in" on DC until it gives around twice the Faraday output. After that, the unit is filled with 28% by weight KOH electrolyte and fed the pulsing signal.

Faraday defined electrolysis as being 2.34 watts per litre per hour of gas output. That is  $2.34 \times 60 = 140.4$  watts for 1 lpm of hydroxy. At this time, you are feeding in 4 amps at 190 volts which is 760 watts. For that 760 watts Faraday would expect 5.41 lpm, which means that your unit is running at 74% Faraday, or about one third of the expected output from Bob's design before it is ready to go to pulsing operation.

Admittedly, the 190 volts is fractionally low for 100 cells, but it is close enough not to be any problem. So, at this point in time, your cell needs mechanical attention in order to get up to the 11 lpm or so that can be achieved on DC alone. When it reaches that level of performance on a 10% NaOH solution, it should then achieve 33 lpm or more with untuned pulsing. But the first step is to get the cell to it's necessary DC performance level, which, unfortunately, probably will need the plates to be prepared to a higher degree.

Unfortunately, there is a difficulty with Bob's design and that is that the plates need to be positioned and sealed to a degree well beyond the capabilities of the average person to construct. If you bought your case from Ed Holdgate, then there will be no problem, but a home-made case can't generally be constructed to the necessary 1/3000 inch accuracy by the average person, as that is a skilled job for an expert machinist who needs to know the exact, actual electrode plate thickness before he starts making your box.

The need for that extreme accuracy is because the resonant operation sets up a magnetic waveform inside the



plate array and that won't happen unless the plates are positioned VERY accurately. The gas bubbles form in the electrolyte between the plates rather than on the plates and when that happens it looks like the electrolyte is boiling although it is actually quite cool. I'm sorry that my reply has to sound so negative especially since you will already have put in a large amount of effort on your project. Good luck with your upgrades

**Question:**

You must be busy, but I'd appreciate any feedback about this link:

[http://www.pureenergysystems.com/news/2005/03/17/6900069\\_Acetone/](http://www.pureenergysystems.com/news/2005/03/17/6900069_Acetone/) Would you say engines in good condition get improvement, or the opposite? In your opinion, could I damage a diesel tractor engine, or car gasoline engine by trying small amounts of acetone added?

**Answer:**

There was a lot of discussion about acetone some years ago. Some people got around 20% mpg improvement while others got no improvement at all. It appears to depend on the engine and the condition that the engine is in when the test is run. You need to understand that I am not an automotive expert and so my opinion does not count for much. I would expect it to be the older and poor-condition engines which would benefit most from acetone - which, incidentally, is a fairly dangerous substance for humans and needs to be handled with considerable care as it can be absorbed through the skin and by inhalation and it can cause kidney damage.

I don't think that you will damage any engine by adding some to the fuel. Having said that, you can get up to 60% fuel reduction on a diesel engine by adding hydroxy gas in sufficient quantity and petrol engines respond even better than diesels. The GEET device allows a major reduction in fuel use and is very popular in France where many tractors use it. The [www.panacea-bocaf](http://www.panacea-bocaf.com) web site has a good deal of information on it and are experimenting with it at this time. There are also two GEET enthusiast forums.

**Question:**

I have a Ford "Transit" diesel 70 hp manufactured in 1995. Is it possible to add hydrogen in order to let it run with less fuel consumption and be more environmentally friendly?

**Answer:**

The fuel consumption of a diesel engine can be reduced by anything up to 60% by adding hydroxy gas to the incoming air. As far as I am aware, no modification to the engine is needed. The improvement in fuel consumption is proportional to the amount of hydroxy gas added. I hope that this helps and good luck with your project.

**Question:**

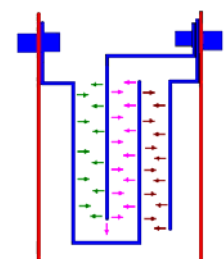
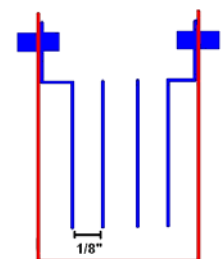
Hello, we need your help. Based on your 6-cell model of Chapter 10, we have built such a generator, which is as follows:

- Stainless steel type 304 (do not get the 316), calibre 0.08.
- Badges 4 "1 / 4 X 2", 4 plates per cell, total 24 plates (206.4 in<sup>2</sup>).

NaOH was used as electrolyte, with a concentration of 20% (as described in chapter 10), we just apply 13.5v a current consumption of 1.5A. We use a higher concentration of electrolyte at 30%, 40% and gave us the same result with a current consumption always similar to 1.5A. We need to know because consumption is so low that, according to calculations based on Chapter 10, current consumption with 12V, it should be up to 40A. Or have we miscalculated? See attached image.

**Answer:**

You have invented your own plate arrangement which needs 6 volts per cell because you have 3 (very inefficient) voltage gaps inside each cell. At this time, you are applying only 0.7 volts between each pair of plates and that is why the current does not change much with stronger electrolyte. You need to change the plate arrangement to what is shown in this drawing. Good luck with your project,





## **Topic: Magnetic Motors**

### **Question:**

If a Flynn Magnet Motor has an even number of magnets and coils on the Stator, how does the motor self start when power is applied, if at all?

Would the assumption be correct that the position of the two magnets on the rotor would be slightly off the exact point of registration of their opposing coils in the direction of rotation, say by 1 or 2 degrees or less perhaps as power is applied to them? The next obvious question would be, how long does the energising pulse have to be? I realise it has to be long enough for the face of the rotating magnet to pass over the Stator magnet. After how many degrees will the rotating magnet be caught in the attraction flux of the next magnet? This period of the coil being energised must obviously be as short and effective as possible, since this will determine the input power.

You state in the literature that the two opposing coils, 180 degrees apart are driven in series. What's the reason for series instead of parallel? If current consumption is the problem, then an adjustment in coil design could easily make a parallel connection draw the same current as a series connection, no?

I know this is not a reasonable question but one I wish to ask anyway. If a motor with the magnets I propose to use, works and works well, using a single platter with the specifications as they are, what could one expect in the way of output power, and what would the total input power be? IF and that is a big IF, this design could attain, even 6000 rpm, it could generate considerable power. If speeds of 20 000 rpm as claimed by Flynn are possible, then I guess even a small motor like this one, could in fact yield a heck of a lot of power !!

### **Answer:**

Self-starting requires a different number of stator magnets or coils to the number of rotor magnets. If the numbers are the same and the stator has separate magnets rather than being one large ring magnet, then the rotor will stop in a position with exact registration of the magnets. So if the build does not allow the user to give it a starting twist, then an odd number of magnets are necessary.

I would suggest that you use an electronic circuit to control the length of the pulse but if that is not convenient, then I would suggest a twin-rotor optical method of adjusting the pulse length as shown for the timing of the Robert Adams motor in Chapter 2. By adjusting to position of the two timing rotor slots relative to each other it allows you to control the unmasked slot length in the timing disc and so adjust the pulse length passed to the optical sensor.

Connecting coils in series or in parallel is just a choice governed by the windings and the user's choice of current, as you point out. The point being made in the text was that being exactly opposite each other, the pulses occur at exactly the same time. However, as you point out, that arrangement would have starting problems.

The torque provided by a single rotor depends directly on the radius of the rotor from the bearing out to the centre of the magnets. Another factor is the pull provided by the permanent magnets. The final factor (ignoring the bearing friction and wind resistance) is the speed of the rotor as the number of drive pulses experienced by the rotor depends directly on the rotational speed. I could see the power output of such a motor as being substantial, even with just one rotor, and by adding additional rotors on a single shaft, the power level should be almost unlimited and I can see no reason why a standard electrical generator could not be driven by such a magnet motor. Remember that only one coil is powered at any one time.

### **Question:**

Here is a question which I hope you can answer. I really have no idea why the coils in the Flynn Magnet Motor drawing have such a large area inside the windings. Obviously the shape of the coil follows the shape of the magnet, but why is the centre cavity so large? If the magnets are circular would there still be a large centre hole? I have noticed this in coils designed for wind generators as well. Your explanation would be appreciated.

**Answer:**

When a current is passed through a coil of wire the strongest part of the magnetic field which is generated is inside the coil windings. The gap inside the coil windings is the most electronically shielded area when the coil is activated and that is why the gaps inside the coils cover the majority of the stator area. This would be the same if the stator was non-magnetic and had circular magnets mounted on it. In that instance, the gap inside the coil would be the same size and shape as the stator magnet and might well surround it.

**Question:**

I am interested in experimenting with the Phi transformer. I have been reading your free-energy e-Book for quite some time now. You mention tests with a COP of 8.5, namely, 140 watts input and 1.2 kilowatt output. Would you assist by pointing me in the right direction in examining studies/literature on the Phi transformer.

**Answer:**

I'm afraid that I am just passing on the research information which I have come across, and I have not built and tested everything mentioned in the eBook as that would take a great deal of money and probably several lifetimes.

In the case of the Phi transformer, I only came across it twice. Once on a German website where there was a very nice photograph of an exceptionally well-built prototype and once on JL Naudin's website. Unfortunately, I lost track of the German site and did not take a copy of that nice photograph. I think that the performance figures came from that site. I tried e-mailing JL Naudin about the variation shown by him but he never replied, which I gather is not unusual for him.

I am not aware of anywhere else that carries information on the Phi transformer. Two people e-mailed me about their attempts to replicate it using very rough bent steel strips and spinning the rotor with a power drill. Their initial tests appeared to confirm that there was either very little, or no Lenz Law effect. They soon dropped me out of the loop and went on developing while communicating directly with each other. I don't recall ever hearing their final results but have the impression that they did not do very well. However, my impression of the quality of their construction and testing was that it was not great, and with free-energy devices, a high quality of construction can make a major difference.

Having said that, I would suggest that you pick on some other device with which to experiment and I would like to remind you that the eBook is upgraded about seventy times per year on average, so downloading another copy is probably not a bad idea.

One thing you might care to consider is adapting a generator to run on water alone as the excess output is in the kilowatts range and not much construction work is needed. Alternatively, if internal combustion does not appeal, then perhaps the RotoVerter which can give a 90% saving in the running costs of electrical equipment.

Hope this helps, and good luck with whatever project you pick,

**Question:**

I've got this idea for a motor and want your feedback. Say you have a wheel, and around the edge you place magnets having the same poles pointed outward. Maybe 30 magnets and all have their north poles facing outward on this wheel. One magnet is then brought, south end first, at right angles to the magnetic field of one of the magnets. The idea is that this will push the magnet in one direction and force the wheel to move, and because all of the magnets have the same pole exposed, this process of continually interacting magnetic fields should keep on for a while. Very possibly a crackpot idea. I'm getting 40 magnets shortly, each with a pull force of 11 pounds, so I hope they're strong enough to do something.

**Answer:**

It is very difficult indeed to get a permanent-magnet-only motor going and the setup which you appear to suggest is one which is commonly tried by almost everyone. It generally doesn't work because while there is a repulsion on one magnet which drives the wheel around, as soon as the next magnet on the rotor approaches, it encounters a backward push of exactly the same size and that causes the rotor to oscillate and then come to a stop with the magnets at their shortest distance apart. Using electric shielding to block the unwanted retarding action, as in the Adams motor or the Flynn motor, makes a major difference and can produce great results and high rotational speeds. Good luck with your experimenting.

**Question:**

Regarding the Orbo details in Chapter 1: What Sean at Steorn is saying is that the permeability of the ferrite core decreases as the rotor magnet approaches (I have verified that this assertion is true). When the permeability is at its lowest point, the coil is pulsed with a very small current so that complete saturation occurs. The ensuing small magnetic field then allows the magnet to skate past the ferrite core. Once the magnet no longer influences the core, a large change of inductance occurs in the core, and as Sean states, it leads to an "energy gain". At this point, the flyback voltage can be captured, and indeed, it is greater than the energy it took to energise the coil. The higher the RPM, the more energy can be captured. There are numerous factors involved in all of this, all of which are quite critical in achieving maximum performance -- coil positions, core permeability, speed, etc.

**Answer:**

Thank you for the detail on the Orbo design. I find it quite hard to get excited about it due to the earlier Adams and Flynn motor designs. I am more than happy that the people in Dublin are genuine as that was my strong impression when I met them on the first day of the failed London demos.

We are only scratching the surface here. I have had person-to-person information on the Adams motor, information which I think has never been made public. Robert Adams was not willing to share his more advanced developments and died before he decided to share his findings. I am informed that he had got a 200 mm diameter rotor motor/generator up to megawatt level output, which is pretty spectacular. I wonder if we will ever replicate that performance.

I understand that Chas Campbell in Australia reached COP=10 before moving on to a more advanced design which he says has unlimited energy output. He says:

**"How 2 Fix**

To create a power source by using Gravity you must have a constant source of momentum and it doesn't have to be perpetual motion, My system uses an electric motor to generate centrifugal force this is achieved with flywheels. A balanced flywheel attached to an electric motor will actual reduce the power consumption of the electric motor while generating Torque, and you use that extra power to drive another flywheel and so on. Remember, to produce electricity you only have to spin a alternator at its designed speed once that speed is reached you use the torque (hp) to keep it spinning - sounds too easy doesn't it? I can spin a flywheel which weighs 80 kg, at 1,000 rpm and the power consumption of the 750 watt motor is less than it takes to spin the motor when it is attached to nothing.

As a matter of interest, the flywheel has a diameter of 600 mm. Imagine a steel wheel weighing 80 Kg travelling at 113 kilometers per hour. So the next time your electricity bill arrives, ask yourself "why does it cost so much when it can be produced by Free wind, Free sun, Free tides, Free water and Free Gravity which can be produced on site?" No more power lines or high insurance cover needed on your solar panels or wind towers.

Gravity is available everywhere even to the 2+ billion people who live without electricity. I am not smart enough to write a book or design a computer game so I decided to invent something that would make me rich it's been a lot of fun and very frustrating as everybody keeps saying "it can't be done". I am now 73, live in a unit, have a foreign landlord and have spent all my money on my invention. It's time that I told the world how to build the "Safe, Affordable, Helpful, & Clean" generator.

Sir/Madam if you, your company, or your Government would like to be associated with something that will make the world a better, safer place please contact me. I've had a film made that I'm sure you will find very interesting.

If you send your POSTAL ADDRESS with a small amount to cover my costs to my POSTAL ADDRESS, then a copy of the film in DVD mode will be posted to you.

Sincerely,  
Chas Campbell  
PO BOX 137, Sunnybank, Queensland, Australia 4109."

It looks like Chas has hit the same brick wall of "zero funds" that most other inventors have. He also seems to have been bitten by the "hey, this design is worth a lot of money, so I could get rich here if I play my cards right" bug. If he manages to make big money, then he will be the first inventor to ever do it.

## Topic: Don Smith

### Question:

I am a bit confused though by the frequency conversions necessary to find the proper length of coil for an L1 coil. On page 338 of PjLBook.pdf it says...

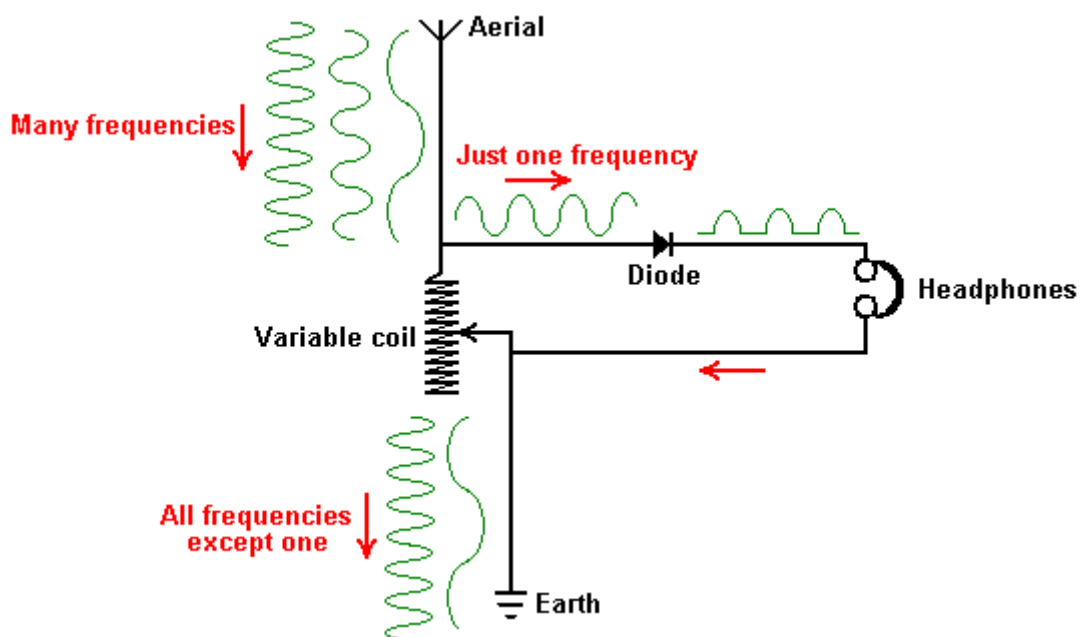
Point 1, section d "If using one quarter wavelength, then divide 247 by the frequency in MHz."

My frequency reads 35.4 KHz or 35400 Hz. That calculates out to .035400 MHz. If I divide 247 by .035400 I get 6,977.40112994 feet. In reading the examples given in Dons pictures and text no reference is given to use of anywhere near that length of wire. In fact the reference to length is in the ten foot range. Am I way off base here or what? Do you come up with the same figures? I have to be missing something, can you help me see it?

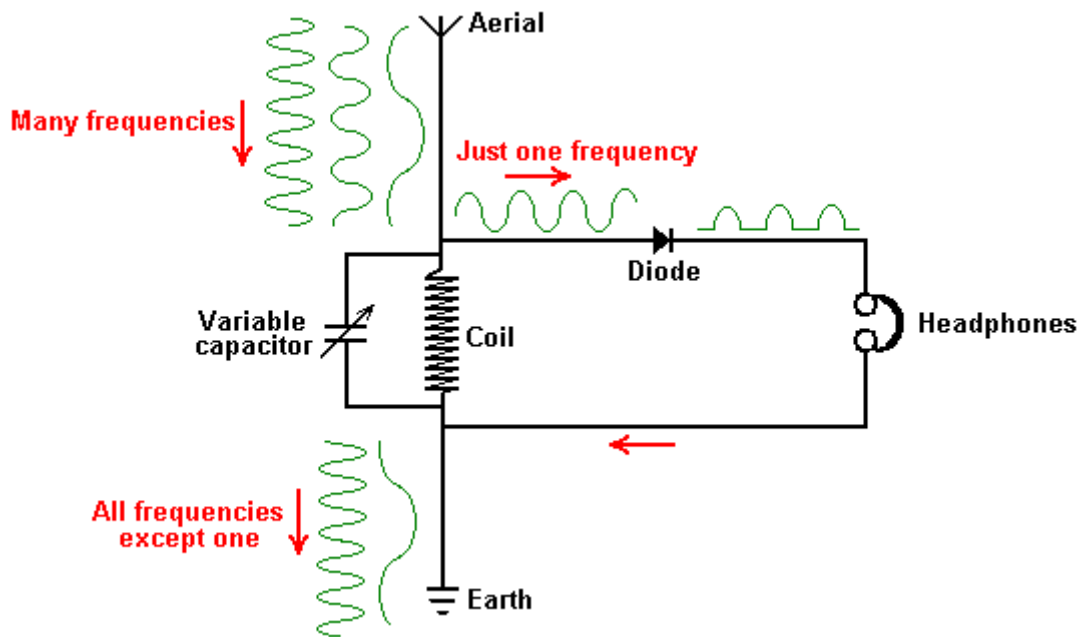
### Answer:

You are not the first person to ask me that question. It needs to be understood that you are quoting Don Smith and not myself. You should also understand that Don Smith does not reveal everything about any of his designs and I, personally, do not by any means understand all that he says. The Don Smith devices are some of the most difficult to understand and replicate. Don uses various techniques with his different designs although most of those techniques appear to have a common background strategy for energy extraction from what he describes as "the ambient background" and others call "the local environment".

Don goes into the overall principle for estimating the resonant frequency of a coil, where a factor of 247 comes into play. However, a coil and capacitor combination resonate at a different frequency set by their combined characteristics. This is clearly seen in a "crystal set" radio receiver. These very simple receivers can be tuned to a radio station by adjusting the number of turns on a coil. The coil is generally built like a rheostat with a slider connecting to each coil wind in turn.



The tuning relies on the fact that a coil of any particular characteristics such as length, diameter, core material, turn spacing, etc., has one frequency at which it has a very high resistance to AC current flow through it. While we don't tend to think of it as such, a radio signal coming down an aerial wire heading for an earth connection, is actually an AC signal causing an AC current in the aerial and earth connections (and consequently, the coil connected between them). If there happens to be a radio signal which is at that exact frequency, then it finds it very hard to get through the coil and tries to find an easier way past the blockage. The radio builder provides that easier path by connecting a germanium diode and a pair of headphones across the coil. Only that one radio signal takes a detour through the headphones and so the listener only hears one radio station out of the many coming down his aerial.



An alternative construction is where the set is tuned by adjusting the setting of a variable capacitor connected across the coil which has a fixed number of turns. This adjustment causes the coil/capacitor combination resonate at different frequencies, the frequencies of interest are those used by different radio transmitters. The average person thinks of this as "tuning the radio in" to different radio stations, but the reality is that the user is altering the resonant frequency of a coil/capacitor pair. The higher the required frequency, the smaller the capacitor needed.

If a coil has its turns spaced out like the Barker & Williamson coils which Don uses, the coil's inherent self-capacitance is increased dramatically. Dealing with coils energised at high frequencies is a fairly tricky area as there is stray capacitance through the air between components on a board, and so, the physical layout of the circuit becomes a factor in the design and in some instances, placing your hand near the tuning components can alter the stray capacitance of the tuning system.

Don admits freely that he does not reveal all of the details about any of his designs, but he does share enough for enthusiasts to have a reasonable chance of working out the missing details for themselves. To help with this, he explains a couple of his easiest designs in fair detail. The neon tube driver design is one of these. Here, the frequency of the commercial driver circuit is imposed on the small "L1" primary coil winding. If it is not the natural resonant frequency of the coil, then circuit forces the frequency on the coil by pulsing it at that frequency.

However, one thing which Don does not mention is the fact that the current which will flow through that "L1" coil depends on the applied voltage (which is very high and might be 6,000 volts) and on the coil's impedance at that frequency. The practical details of this radio-frequency work is something about which I am almost 100% ignorant, so you would need to read up on the subject or consult an experienced radio-frequency expert.

In the design which Don shows most frequently, he indicates that the performance of the first part of the circuit is governed by the resonant match between the L1 and L2 windings of the Tesla Coil which he uses to step up the voltage to a high level. To make these two coils resonate in step with each other, the L1 coil needs to be made from wire which is exactly one quarter of the length of the wire in the L2 coil. If the coils were the same diameter, that would give a 1:4 step up in voltage, but as the L1 coil has a larger diameter, the wire length makes fewer turns than one quarter of the number of turns in the L2 coil. Consequently, the step-up ratio is more than 1:4 and more than four times the voltage is generated in the L2 coil.

Don implies that if the coil winding is not absolutely exact, you might need a very small capacitor across the L2 coil in order to make the two coils resonate at the same frequency. If this were the only requirement then you would expect to see one capacitor across the "L2" coil to make the matching perfect. However, you will notice that Don uses a capacitor across **both** of the coils. So, why does he need two? This may be my ignorance showing here, but I would suggest that the capacitor across the "L1" coil has nothing directly to do with the "L2" coil at all but is there to tune the "L1" coil exactly to the output frequency of the neon-tube driver circuit, presenting it with a high impedance at the working frequency and so it will draw very little current from the driver circuit.

The frequency in L2 will always be the same as that in L1 which is driving it, but the energy performance is massively better if the L2 coil is operating at its own natural resonant frequency. This may well be achieved by the

wire length ratio between L1 and L2 but as the L1 natural frequency has been manipulated slightly by putting a small capacitor across it, I suggest that the capacitor across the L2 coil is to match the capacitor-induced shift in resonance of L1.

In versions of this design, Don converts the AC coming out of L2 to DC with a high-voltage four-diode rectifier bridge and then feeds the power into a large high-voltage capacitor before stepping the voltage down and the current up, with an "isolation" output transformer.

I have seen it said by several different people that a capacitor used like this causes a change in the nature of the incoming energy, making it much more like conventional electricity.

It seems highly likely that what Don says has a typing error and the "MHz" should read "kHz" and the wire length at your 35.4 kHz would then be 6.9774 feet (not including the straight connecting wires) or 6 feet, 11 inches, and 23 thirty-seconds or 2127 mm. Wound on a 3" former with wire of 0.25" diameter, that would be about 8.22 turns which does not seem unrealistic.

However, bottom line, you have to consider me to be a source of unreliable information here as you are asking me to interpret what Don means and there are probably not many people who can do that and I am definitely not one of them and so have to resort to guesswork here.

With regards to the Ecklin-Brown style motor-driven rotor device, I would suggest that although he does not show it or mention it, that Don tunes the power pick-up coils to the resonant frequency of the pulsing produced by the rotor arms passing by the magnet pairs. Remember that the title of Don's document is "Resonant" Energy Methods and he shows the Ecklin-Brown style device in that document.

#### **Question:**

Just to let you know I was at first impressed with Don Smith's research. Having checked other comments about him I now have my doubts. The question is: why did he not commercialise his Tesla system which is described in sufficient detail in your eBook? One of the sites I found did not have good things to say about him. Who does one believe. I sent him an e-mail recently and it just bounced back. It seems that Don has gone quiet.

#### **Answer:**

Don Smith is very elderly at this point in time and he has suffered several severe strokes. It is almost certain that he is in no fit state to respond to e-mails. There is a web site set up by his son who gives every appearance of not understanding anything much about his dad's technology.

Don methods are some of the most difficult to replicate as he freely admits that he withholds some vital information because he exploits his designs financially and so Non Disclosure Agreements get in the way. In his various video lectures he remarks that it is not in his financial interests to disclose all of the details but he says that he discloses enough to allow an experienced developer deduce the missing parts and fill in the gaps for himself.

Probably a key point is having the "L1" / capacitor combination reflect a high impedance at the frequency of the driving circuit (probably a neon tube driver). With a high impedance, there is little current draw. Another feature is the need to feed the energy into a capacitor before attempting to use it for "useful work" as the nature of the energy changes in the capacitor and aligns it to our everyday power supplies. The radio frequency experts have a head start in understanding Don's designs as they are nearly all based on high frequency and, for example, RF experts know that metal can be used to insulate between two wires if the spacers are the correct length for the frequency used.

Although Don does not say it, it is probable that his Ecklin-Brown style device has the output coils tuned to the frequency produced by the spinning rotor arms. Also, it is likely that he is using wire with a very large number of fine strands inside it and that seems to have quite an effect on the output.

#### **Question:**

My daughter came to visit from California. She got 27 miles per (US) gallon average on the trip up here with her Buick Regal. For her return trip with a full car load of her stuff I installed an improved (single water bath) electrolyser, current control with a BASIC Pulse-Width Modulator, and I made her a MAP sensor enhancer override. She followed the same route back to California and averaged just under 40 miles per gallon (a 45% increase). No other changes were made. The electrolyser has eight 2.5" x 5" stainless steel plates with 1/8" spacing in a Mason jar. The plates were all cross-hatched with sanding score marks and all skin oils were removed with trichlorethylene (Automotive Brake Parts Cleaner). I used the method Boyce recommended of polarizing the plates with a wire wrapped around the body of the plates and sparking across a 12 volt DC source.



I set the Pulse-Width Modulator to supply 18 amps steady once warmed up. Previous to this project the best I had achieved is a 23% increase. Your book helped me to tweak a few things and waah-laaaah 39+ mpg.

I do have one problem which I've been trying to figure out. I am building a Don Smith type device. The unit he showed is rated at 8,000 volts at 20 amps (160 KW). I used a 10 foot section of #12 solid copper wire for the L2 coil wound around a 2" pvc pipe. I then released the hold on the wire allowing it to expand to approx 3" diameter coils. Then I cut four ABS plastic strips and hot glued them into the interior of the coil spaced evenly. The coils are spaced at 3/8" space per turn. I then used insulated #12 multi-stranded (maybe 50 strands) wire 2.5 feet long for the L1 coil wrapped around a 1.5" PVC pipe which made about 5 and 1/8 turns. the excess wire was run through holes into the centre of the pipe and carried through to near the lower end to exit the pipe and was then led to the terminal strip for the neon generator.

The neon generator throws a 2" spark until it is hooked to the coil. Once the L1 coil is hooked up I can't get the slightest spark! The spark gap will not arc even a 64th of an inch. I've tried rectifying the output of the neon transformer and tried direct hook-up. It seems odd to expect that a spark could be drawn with the L1 coil direct shorted across the transformer output. My understanding is that the spark gap is required to maintain the frequency as a trigger when DC is used, but that it is not absolutely necessary with AC. Is this your understanding? I know from Tesla's drawings that he commonly used them, but often it was after a capacitor.

When I was looking at the photo clip of the device I didn't see any diodes. Could they be in the black insulating tubing on the terminal strip? Do you know why he converts to DC before he goes into the coil, when he again rectifies with a bridge after the L1 / L2 coil assembly? Could he just as well be using AC until he completes the zero-point energy collection process like Tesla often did or are you positive he has diodes in there at the neon transformer?

One last thing... Do you know how I can read the frequency of the neon's High Voltage High Frequency output with an oscilloscope? I tried to contact the sellers of the devices and they have no idea what the frequency of the output is. They just read what the data plate says on input frequency. I am now trying to get the info from the manufacturer, so far unsuccessfully.

#### **Answer:**

May I suggest that you hold off on your assessment of the improvement in mpg got by your daughter. Some ECUs are programmed to adapt to changes such as the addition of hydrogen, and after a few days or weeks, revert to pumping in excess gasoline. Let's see what the effect is after some time has passed. Certainly, the improvement achieved so far is a good indication of what is definitely possible in spite of the opposition from the ECU.

I'm afraid that the suggestion on wrapping wire around the plates and pulsing it, came from me rather than Bob Boyce, who I understand thought that it was a ridiculous idea until one electrolyser builder told him that he had got a substantial percentage gas improvement by doing that. In theory, if the steel is perfect, then it would have no effect, but if, as can happen, the steel supplied is not perfect, then it could help, especially in the early stages of electrolysis.

The devices described by Don Smith are probably the most difficult you could try to replicate (with the possible exception of the Joe Cell). Each of Don's devices need to be tuned to resonance which is difficult to do unless you have a lot of patience, equipment and know-how. Your construction method sounds great and your choice of materials, very good - most people ignore what they are told and decide to do something else and then say that "it doesn't work", while in reality, they should be saying "I couldn't get my altered design to work".

In my opinion, the spark will not occur unless you have a capacitor across the L1 coil, forming an L-C combination which has high impedance at the frequency produced by the neon driver circuit. On it's own, I would expect the L1 coil to load the neon supply too heavily to get any serious voltage across it. As an L-C pair, the impedance at one particular frequency will be very much higher (which is how an AM crystal set radio receiver tunes in a particular station). The spark will only occur at resonance as the voltage will be pulled down too low at all other frequencies.

The diodes are hard to see in the video. They are long and black and don't show up well against the dark background. There are actually four of them on the output side and as you correctly remark, Don describes them as a bridge. They are very long because of their high voltage rating, perhaps ten times as long as they are wide.

I think that the neon driver which Don had, gives two separate high voltage outputs and Don combines them on the input side of L1 with two diodes to stop them interacting with each other. Your neon driver circuit is liable to be very different to Don's.

The frequency and shape of the neon driver output pulses can be read with an oscilloscope. You set the

horizontal time adjustment so that you have two successive pulses widely spaced on the screen, and then the horizontal timing setting combined with the number of squares on the screen between the start of each pulse shows you how far apart in time the pulses are. If the time between them is 0.033 milliseconds, then the number in one second (which is the frequency) will be the number of 0.033 milliseconds which fit into one second (of 1000 milliseconds), i.e.  $1000 / 0.033 = 30,000$  pulses per second or 30 kHz.

### **Topic: General Items**

#### **Question:**

I was doing a web search today and came across your comprehensive book on free-energy devices. Since I've recently been introduced to this concept of the Zero-Point Energy Field, and still remain sceptical of a true Over Unity machine... I would like to ask if you have seen any such models working in person, with your own eyes? Something that runs without external energy input for an extended period of time!

If I were to replicated some of the experiments, is it easy to get in contact with those inventors? Have you been able to contact them and have had fruitful communications in the past? My curiosity is high, and I would highly appreciate your assistance!

#### **Answer:**

Thank you for your e-mail. I fully understand your caution in accepting something which you can't see and about which conventional science appears to be doubtful - calling it "dark energy".

I have met with just a very few of the people mentioned in the eBook as the internet allows us to talk freely to anyone around the world while getting together is usually VERY expensive and often almost impossible. I have met with Bob Boyce and Ed Holdgate in the USA and Dave Lawton who is in Wales. I have corresponded with many people around the world, including John Bedini, Tom Bearden, Ravi Ravu, Lawrence Tseung, Scott Cramton, Tom Thayer, Ron Pugh, Bill Williams, Lawrence Rayburn and a host of other people who have achieved COP>1.

Because of the fact that people are so scattered around the world, I have only seen "with my own eyes" two COP>1 electrolysis systems and one battery-charging COP>1 system. After much correspondence, I have not the slightest doubt as to the complete honesty of many of the people claiming to have working devices, many of whom do not want their names published and several who do not want any details of what they have achieved, disclosed in any way.

Many people think that those who claim these things are just seeking publicity while the reality is just the reverse with most wanting to be left in peace and many quite reluctant to share the details of what they have achieved. One of my biggest problems is that most inventors are driven by curiosity and when they succeed, they lose interest and move on to something else about which they are curious, usually taking the successful device apart in order to use the components for something else, and never documenting what they did.

Dave Lawton's successful replication of Stan Meyer's "Water Fuel Cell" had reached his spares box for recycling when he happened to mention it to me when talking on the phone. I then persuaded him to let me document it, and dozens of people have, since then, made successful copies of Dave's cell. Dr Scott Cramton worked on from that document and has reached 6 litres per minute of hydroxy gas for about 36 watts of input power (which Faraday would have believed to be impossible, stating the maximum possible performance would be 842.4 watts to get 6 litres per minute).

There is no way that I could convince you of the reality of the energy field, although I might be able to persuade you on devices which have a greater output than your input (your refrigerator for example which is COP=3).

#### **Question:**

I was looking through the "bedini\_monopole3" Yahoo forum files for performances achieved, and most people have reported COP results of between 0.85 and 1.2 with a couple of wild results. Is this all you can get from a Simple Schoolgirl battery pulser?

If the recapture of Back EMF is central to COP success, then should we simply set up a coil, pulse it with DC, capture the Back EMF, making sure that the pulsing frequency is low enough to allow the coil to charge up? It seems too easy and too straightforward.

#### **Answer:**

The Ron Pugh Bedini pulser shown with photographs in the eBook has run at COP=11 with a bank being charged from a single battery. Few people construct to that quality or tune accurately like they should. Batteries are not a

great solution and a generator running on water has massively greater use to a person - you won't get any battery pulser gaining more than 4 kilowatts.

Picking up Back EMF can be relatively straightforward. Remember the man in South Africa who charges up his 10 Amp-Hour battery each night using the battery which is being charged to power the circuit which is doing the recharging. That system uses Bob Boyce's toroid plus three diodes and one small toroidal choke. At the present time, that circuit recharges at just 12 watts (i.e. 1 amp of current) which is not a massive rate of recharging, but the overall performance is spectacular as present-day science says that doing this is "impossible" and yet this man has done it more than 35 times in a row.

I have a problem with batteries. To get the sort of current supply which a household needs, an impossible number of large, expensive batteries are needed. Even if you keep the rate of discharge down to discharging over the recommended twenty hour period, those batteries will need to be replaced on a regular basis. Also, batteries are not 100% efficient and so part of the current which you feed into them will not be returned to you when you need it to power your equipment. What is really needed is some alternative system which can generate the needed power at the time when you need it. For that reason, while I am not a fan of internal combustion engines, a generator which has been adapted to run off water alone and which provides several kilowatts of excess power, looks like a much more viable solution to off-the-grid power.

**Question:**

I would welcome your comments re certain passages in Chapter 5. It talks about the load being powered indefinitely. However there are certain references to discharged batteries being restored under a minute and also that the batteries would charge up to nearly 36 volts with no apparent ill effects. After the discharged battery is restored after a minute this would seem to indicate that after one minute all batteries would start being overcharged. Does this matter? Is there any danger of damage, fire or explosion? There was some mention of control circuitry to prevent over-charging. If the circuit behaved itself during trials why would control circuitry be needed? Also, would not this compromise the correct working of this system? At the moment I am only thinking of using rechargeable batteries.

**Answer:**

Rechargeable batteries should be ok. John Bedini's "cigar-box" demo Tesla Switch used rechargeable and it ran for six months solid until it was smashed by the opposition who then intimidated John. The section in Chapter 5 which you mention is a quotation of what the Electrodyne Corp. people reported as their experiences with their implementation of the Tesla Switch. They were using four ordinary car batteries. I don't think that lead-acid batteries have any problem with over-voltage when they have become conditioned through Tesla Switch use for a month or two. The over-voltage protection was a suggestion from me and I believe that any problems which they had with the higher voltage were most likely to do with the voltage rating of the components in their circuit rather than with the batteries themselves.

Please be aware that the Tesla Switch pulser physical layout on stripboard shown in that chapter was corrected for an error very recently and so you should download a new copy of chapter 5 (or the eBook) if you intend to build from that particular layout.

**Question:**

I may have missed any discussion in regards to patents, so I would like to know if these are public domain, or what, if any, restrictions are involved in making one for oneself, or selling plans, or products.

Also, do you have a recommended parts warehouse? I am in the midst of searching, and would like to buy capacitors, chokes, and diodes from the one place. Any help you can give along these lines would be appreciated.

**Answer:**

Patents are documents of Public Record and so may be reproduced by anybody for any purpose. You are able to make anything shown in a patent for your own use. A patent has extremely limited power and is only there as a low-grade tool against competing commercial companies trying to outsell the patent holder. They can be used by rich and powerful individuals to harass and oppose the individual inventor or very small business by wasting a massive amount of time in court - time which should have been spent in production, and wasting vast amounts of money in defending against court cases (which may well be frivolous). Even if you personally, hold a patent on some device, you would need a tremendous amount of money to fight a patent application from someone else, even though the new application is clearly based on your design. Patents are only useful for very rich people.

There are links to electronics outlets on my websites, but you don't say what country you are in. In the USA, mouser.com might be a good source, while in the UK, perhaps ESR, Maplins or RadioSpares might be your choice.

**Question:**

May I ask what excess energy devices are there which have no moving parts?

**Answer:**

There are many devices of that type, with Don Smith having about four dozen, Herman Plauston describing aerial systems of his as being "small" if their output is not over 100 kilowatts, Bob Boyce's toroid which self-charges batteries, Steven Mark's toroid, the Colman/Seddon-Gillespie 1 kW battery, and many, many more.

Mind you, the ones with no moving parts are more difficult to get working as they usually need tuning and most people don't have the necessary level of patience (and many don't have the know-how either).

**Question:**

It appears resonance is the key to success. Although I have a background as an electronic technician, I am a complete novice regarding "free energy". I have been reading everything I can get my hands on. If you have any other informative references please let me know.

**Answer:**

The problem with the information is that different people have different theories on what happens and how it happens in the free-energy arena. Some people believe that it is electron spin while others believe that it is the ambient background being nudged into imbalance and others believe that the interface is through rotating magnetic fields.

It is distinctly possible that each of these views is correct and that there are several ways of tapping this energy. However, I can't point you at any one definitive text which describes it all in detail and explains how to gather and use it easily and cheaply.

We have been held back to the 1903 level of flight where flying is just not available to almost anyone. For us now, free-energy is just not available to almost anyone. Worse still, the internet is being smothered with legislation to curtail its use. Unelected people can dictate that any site is excluded from people in their country. The countries which have already implemented this are China, Australia and the UK and I think that the US is likely to do the same in the near future. I would expect my website to be in the list of excluded sites.

So, to answer your question, if I knew of any really good material on the subject, I would either have it on my web site or I would point to it. So sorry, nothing additional springs to mind.

**Question:**

I recently read with interest what you had to say about colloidal silver, but have I think found a problem! You state that in order to produce colloidal silver that it is necessary to use distilled water and that the silver rods are placed on opposite sides of the beaker. Well even at 27 Volts it is impossible to produce Colloidal Silver in distilled water with a electrode spacing of say 6.5 cm. So I ask, is distilled water really used or if it is anything else added?

**Answer:**

Highly distilled water is indeed used, and if you don't stir it, you can see streamers moving across between the electrodes. I have found the resulting colloidal silver to be very effective. Ravi in India uses the 200 cc container as he treats many people. I use a much smaller "snifter" glass whose internal dimensions are 40 mm tapering to 28 mm over a depth of 45 mm. This is because I generally use a nebulizer (or apply it externally which is really excellent for skin damage) and the dose volume needed is then very small, perhaps 8 cc or so.

I generally prepare the liquid for about 15 minutes and clean the silver oxide off the negative electrode twice in that period as it builds up very fast. The positive electrode goes non-reflective grey. I could only get much smaller diameter silver wire and so I use about eight strands on each side, bent back on itself in a vertical bundle, in order to get greater surface area.

**Question:**

There are so, so many areas of possible research that the challenge, for me anyway, is just in making the decision on what to try. There are two that I think I'd like to take a stab at:

1. The Tesla Switch.
2. The Stephan Leben circuit (base upon the original of Alexander Meissner).

However, I have a question concerning each of them. For the Tesla Switch, I've read that an electro-mechanical switch is preferred (and maybe necessary for the highest potential for bringing in radiant energy). In searching a switch of this type I could not find much online to help direct me, so can you suggest a possible component here?

For the Leben/Meissner circuit, what would be a likely choice for the transistor? (That is the only component that was not named, of all the parts listed).

I would have preferred to just dig in and try these two on my own, but since my electronics background is practically nil (with the exception of assembling a Xenon strobe light circuit from a kit many years ago) I was hoping you might take some pity on this poor physics-challenged soul and offer a couple of pointers. Any information you may provide in this regard will be most appreciated. Thank you, in advance.

**Answer:**

Thank you for your e-mail. Chapter 12 is supposed to give you enough electronics background to allow you to understand and build circuits of this kind. If it has not done that for you, then please give me a steer as to what more is needed and I will expand the chapter accordingly. (This is a genuine request on my part and is not meant to have any kind of negative connotations.)

The phrase electro-mechanical switch does not ring an immediate bell with me but the term implies that it is a mechanical switch which is activated electrically. That would include relays and the mechanical motor-driven switch shown as being what the Electrodyne Corp. staff used (it seems likely that Don Kelly was one of those Electrodyne Corp. people). Transistors were used in John Bedini's circuit replication which ran solidly for six months before it was smashed and he was intimidated into silence.

The reason why mechanical switching is sometimes recommended is because many people do not know how to get fast switching with semiconductors. The Tesla Switch circuit needs to have all the components working together and so even the diameter and length of the connecting wires can make a difference. It is a circuit where heavy loads will work better than tiny test loads as cold electricity operates the reverse of hot electricity and so the heavier the load, the better it works. It is one of the most difficult circuits to get working well, so you might be better off picking a different project.

I think that it is unlikely that the transistor in the Leben circuit is at all critical. Technically, it needs to be able to handle the current, and that will depend on the wire size you use and the number of turns (and to a lesser degree, on the frequency which is determined by the size of the capacitor). An MJ11016 is a powerful, high-gain transistor which should work well. A BD243C transistor is popular in circuits of this type although it has a much lower gain. Hope this helps, and good luck with your project(s).

**Question:**

Always been a fan of yours ever since I built my first "D18" cell which may I add is still going strong and saving me loads of money. I have a question regarding the Tesla Switch: you mention that the contacts on the discs attached to the motor are set at angles. Can you please explain in more detail.

**Answer:**

You are the first person I have ever come into direct contact with who has ever had any success with the "D18" Nitro Cell and I have had to classify it as a "doubtful" device because of that. If you are getting a benefit from it, then I would be delighted to change it's classification and combine with you to do a better presentation of the cell including your experiences with making and using it - if you have no objection to this, then please get back to me.

I'm sorry that you have found the switching disc details difficult to understand and I will upgrade the description in the next issue of the eBook. What I was trying to say is that each disc has one sixth of it's circumference clad in copper while the following sixth of the circumference is a non-conducting material.

As there are 360 degrees in a complete circle, one sixth of the circle covers an angle of 60 degrees, which is why 60 degrees is mentioned at the present time. I will expand the description to explain this in more detail. There is no question of the actual copper cladding (or whatever method of conducting contact that you choose to use) being itself angled in any way - it is just a case of there being three sections of the disc being conducting and

having an equal sized non-conducting section on each side of the conducting sections. as the contact pairs are exactly opposite each other, this causes one pair of contacts to conduct while the pair directly opposite it is not conducting. Hope this helps and my apologies for the poor description in the eBook.

[engpjk@yahoo.co.uk](mailto:engpjk@yahoo.co.uk)

[www.free-energy-info.co.uk](http://www.free-energy-info.co.uk)

[www.free-energy-devices.com](http://www.free-energy-devices.com)