## Simple Free-Energy Devices

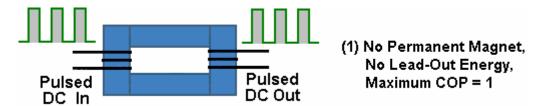
There is nothing magic about free-energy and by "free-energy" I mean something which produces output energy without the need for using a fuel which you have to buy.

## Chapter 14: Special Transformers

It is widely thought that any transformer will have less power coming out of it than the power being fed into it. That idea is quite wrong, and transformers have been made with their output power some forty times greater than their input power.

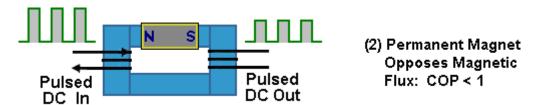
To start with, let's consider the small and very simple transformer from Lawrence Tseung. He takes a magnetic frame made of standard thin strips and he inserts a permanent magnet in one of the arms of the frame. He then applies sharp DC pulses to a coils wound on one side of the frame and draws off energy from a coil wound on the other side of the frame.

He shows three separate operating modes for the devices as follows:

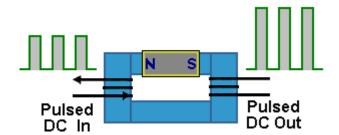


Lawrence comments on three possible arrangements. The first on shown above is the standard commercial transformer arrangement where there is a frame made from insulated iron shims in order to cut down the "eddy" currents which otherwise would circulate around inside the frame at right angles to the useful magnetic pulsing which links the two coils on the opposite sides of the frame. As is very widely known, this type of arrangement never has an output power greater than the input power.

However, that arrangement can be varied in several different ways. Lawrence has chosen to remove a section of the frame and replace it with a permanent magnet as shown in the diagram below. This alters the situation very considerably as the permanent magnet causes a continuous circulation of magnetic flux around the frame before any alternating voltage is applied to the input coil. If the pulsing input power is applied in the wrong direction as shown here, where the input pulses generate magnetic flux which opposes the magnetic flux already flowing in the frame from the permanent magnet, then the output is actually **lower** than it would have been without the permanent magnet.



However, if the input coil is pulsed so that the current flowing in the coil produces a magnetic field which reinforces the magnetic field of the permanent magnet then it is possible for the output power to exceed the input power. The "Coefficient of Performance" or "COP" of the device is the amount of output power divided by the amount of input power which the user has to put in to make the device operate. In this instance the COP value can be greater than one:



(3) Permanent Magnet Enhances Magnetic Flux: COP > 1

As it upsets some purists, perhaps it should be mentioned that while a square wave input signal is applied to the input of each of the above illustrations, the output will not be a square wave although it is shown that way for clarity. Instead, the input and output coils convert the square wave to a low-quality sine wave which only becomes a pure sine wave when the pulse frequency exactly matches the resonant frequency of the output winding.

There is a limit to this as the amount of magnetic flux which any particular frame can carry is determined by the material from which it is made. Iron is the most common material for frames of this type and it has a very definite saturation point. If the permanent magnet is so strong that it causes saturation of the frame material before the input pulsing is applied, then there can't be any effect at all from positive DC pulsing as shown. This is just common sense but it makes it clear that the magnet chosen must not be too strong for the size of the frame, and why that should be.

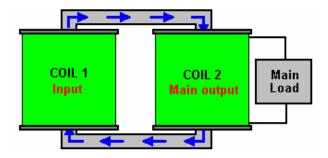
As an example of this, one of the people replicating Lawrence's design found that he did not get any power gain at all and so he asked Lawrence for advice. Lawrence advised him to omit the magnet and see what happened. He did this and immediately got the standard output, showing that both his input arrangement and his output measuring system both worked perfectly well. It then dawned on him that the stack of three magnets which he was using in the frame were just too strong, so he reduced the stack to two magnets and immediately got a performance of COP = 1.5 (50% more power output than the input power).

## The Transformers of Thane Heins.

Thane has developed, tested and patented a transformer arrangement where the output power of his prototype can be more than thirty times greater than the input power. He achieves this by using a figure-of-eight double toroid transformer core. His Canadian patent CA2594905 is titled "Bi-Toroid Transformer" and dated 18th January 2009. The abstract says: The invention provides a means of increasing transformer efficiency above 100%. The transformer consists of a single primary coil and two secondary coils.

Magnetic flow is a thousand times easier through iron than it is through air. Because of that fact transformers are generally constructed on a frame made of iron or a similarly magnetic material. The operation of a transformer is nothing like as simple as school teaching would suggest. However, leaving parametric excitation aside for the moment, let us consider the effects of magnetic flow.

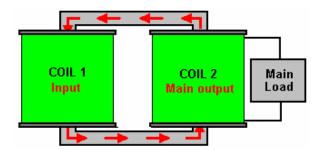
The way that off-the-shelf transformers work at the moment is like this:



When a pulse of input power is delivered to Coil 1 (called the "Primary winding"), it creates a magnetic wave which passes around the frame or "yoke" of the transformer, passing though Coil 2 (called the "Secondary winding") and back to Coil 1 again as shown by the blue arrows. This magnetic pulse

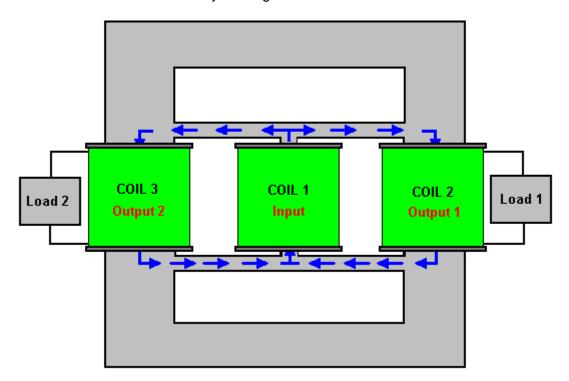
generates an electrical output in Coil 2, which flows through the electrical load (lighting, heating, battery charging, video displays, or whatever) providing it with the power which it needs to operate.

This is all well and good but the catch is that when the pulse in Coil 2 finishes, it also generates a magnetic pulse, and unfortunately, that magnetic pulse runs in the opposite direction, opposing the operation of Coil 1 and causing it to have to boost it's input power in order to overcome this magnetic flow in the opposite direction, shown here by the red arrows:

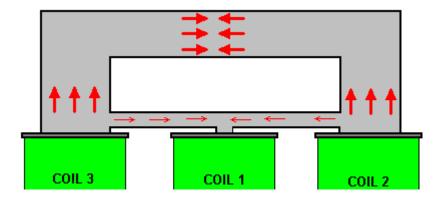


This is what makes current scientific "experts" say that the electrical efficiency of a transformer will always be less than 100%. This effect is caused by the magnetic path being symmetrical. Like the flow of electricity, magnetic flow passes along every possible path. If the magnetic path has low magnetic resistance (generally due to having a large cross-sectional area), then the magnetic flow through that path will be large. So, faced with several paths, magnetic flow will go along all of them in proportion to how good each path is for carrying magnetism.

Thane Heins has made use of this fact by making a transformer like this:



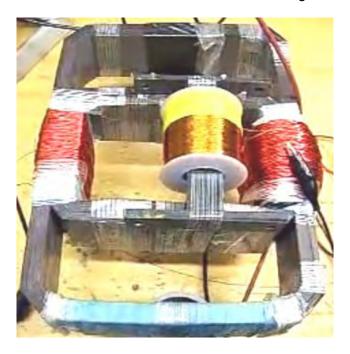
This style of transformer has got quite complicated magnetic flows when it is operating, although the diagram above only shows some of the flow paths generated when the input coil "Coil 1" is pulsed. The really interesting result is seen when that input pulse cuts off and we expect return magnetic flow from coil 2 and coil 3. What happens is this:



Assume that coil 2 and coil 3 are identical. The reverse magnetic flux coming out of coil 2 immediately encounters a junction with one path being far easier to use than the other. As a result, the vast majority of that magnetic flow follows the broad path, and only a small percentage flows through the narrow path. The broad path flow meets and is opposed by an identical large flow coming from coil 3, and those flows effectively cancel each other out. This produces a major improvement over an ordinary transformer. But, the small flow reaching the entrance to Coil 1 encounters two identical paths, and only one of those paths goes to coil 1, so the flux divides with half going towards coil 3 and half going through coil 1. That halves the strength of the already small percentage of the original, unwanted reverse magnetic flow into coil 1. The other half runs into the reduced flow from coil 3 and those halves cancel each other out. The overall effect is a really major improvement in the performance of the transformer as a whole.

In the patent document, Thane quotes a prototype test which had a primary coil winding with 2.5 ohms resistance, carrying 0.29 watts of power. The secondary coil 1 had a winding with 2.9 ohms resistance, receiving 0.18 watts of power. The resistive load 1 was 180 ohms, receiving 11.25 watts of power. The secondary coil 2 had a winding with 2.5 ohms resistance, and received 0.06 watts of power. Resistive load 2 was 1 ohm, receiving 0.02 watts of power. Overall, the input power was 0.29 watts and the output power 11.51 watts, which is a COP of 39.6 that is, the output power is nearly forty times greater than the input power. Where does the extra power come from? Well there is no magic about it, as the extra current flows into the transformer from our local environment which is a massive energy field.

A variation of this arrangement is to attach an outer toroid to the existing bi-toroid arrangement, like this:



This prototype, as you can see, is fairly simple construction, and yet, given an input power of 106.9 milliwatts, it produces an output power of 403.3 milliwatts, which is 3.77 times greater.

This is something which needs to be considered carefully. Conventional science say that "there is no such thing as a free meal" and with any transformer, you will get less electrical power out of it than you put into it. Well, this simple looking construction demonstrates that this is not the case, which shows that some of the dogmatic statements made by present day scientists are completely wrong.

This simple and elegant modification of the humble transformer, converts it into a free-energy device which boosts the power used to drive it and outputs much greater power. Congratulations are due to Thane for this technique and for his sharing it openly with anyone who is interested.

Patrick J Kelly www.free-energy-info.co.uk