PROPOSAL FOR A MOTIONLESS OVERUNITY GENERATOR

Objective

Propose a design for a generator which will have a greater electrical output than its input (overunity generator)

Foundation

In my opinion in order to emulate a common movable generator into a motionless device it is required that the magnetic lines of force cut the conductors. Common generators are based on induction done by lines of force cutting the conductors. Therefore our aim is to emulate this same concept but using now a motionless device.

In my opinion the key for obtaining an overunity generator is to be able to operate in such a condition and geometry that you could skip the Lenz effect counter-acting the inducer field.

The Lenz effect is a physical effect which will always appear. Any overunity design should depict a configuration where the Lenz effect will be skipped or will be got working to assist the inducer field.

Proposal

I have already posted these ideas in some forums. I am just collecting them here into a single PDF document in order to be put together for any further future use.

I think I have discovered a new configuration which may get OU finally. I want to share with you that **in a configuration with two electromagnets with like poles facing each other the induced magnetic field will not act against the inducer field (as usual) but it seems to reinforce the inducer field** in the electromagnet which is increasing in strength at that moment. In other words: **the induction take place to ASSIST the inducer field**, not to reduce it, as usually happens in the Lenz effect.

The system is composed by two electromagnets and one coil in between to collect the induced current.

The important idea is to note that <u>induction can take place as consequence of two different phenomena</u>:

> 1- <u>Induction by flux cutting the induced wire</u>: This induction is done by the lines of field cutting the wires. This motional emf usually creates a dragging force in the conductor which will act against the movement (this dragging force is represented by the Lorentz Force F = I·Length·B). As this is a motionless device there won't be any possibility to show a dragging force. This is the type of induction which must the maximized in this device.

$$E_{cut} = B \cdot v \cdot l \cdot \sin(\theta)$$

2- Induction by flux linking two coils: This induction is done by the flux linking two coils. This induction does not need to cut the wires (as happens in transformers). It will create an induced magnetic field that will tend to oppose to the change in the inducer field.

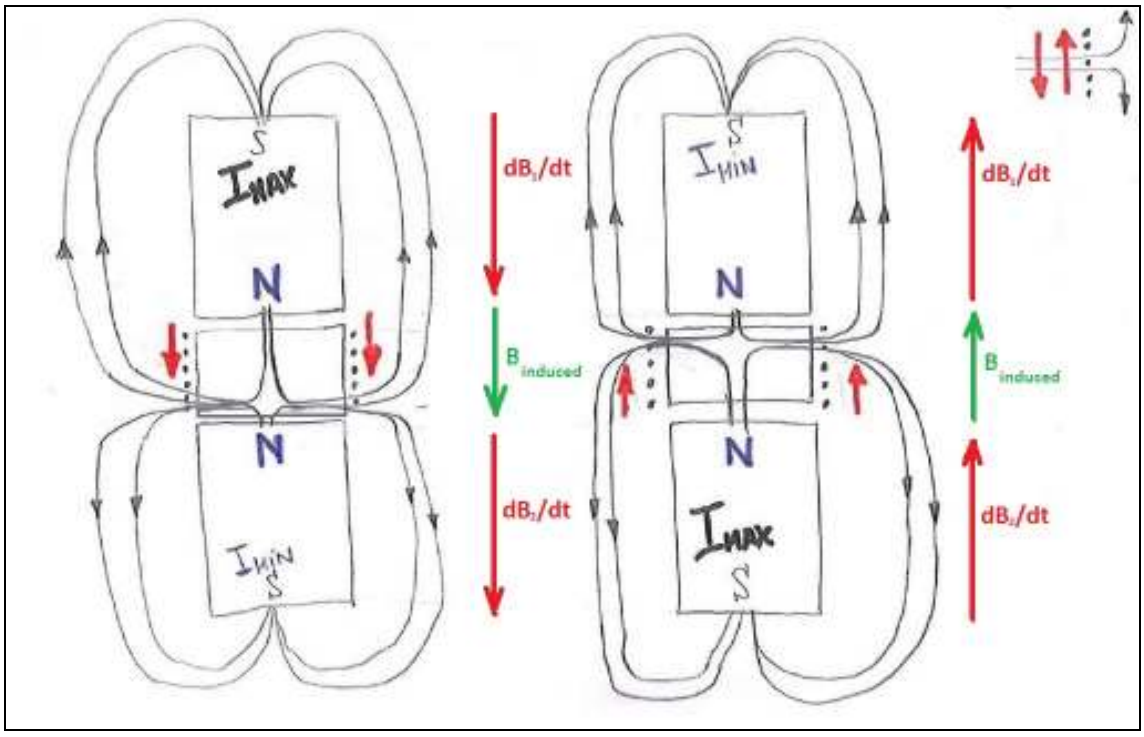
$$E_{link} = N \cdot A \cdot \frac{dB}{dt}$$

In order to emulate a movable generator into a motionless device it is necessary that the magnetic flux lines cut the induced wires. Therefore we should maximize the induction by flux cutting and minimize the induction by flux linking.

Like poles facing each other: By changing the magnetic strength in both electromagnets (excited with the two opposite signals) the lines of force will repel and will leave the induction iron core. The sequential change in both currents will create a swing of the lines of force back and forth in each cycle, cutting the induced wires which surround the induced core.

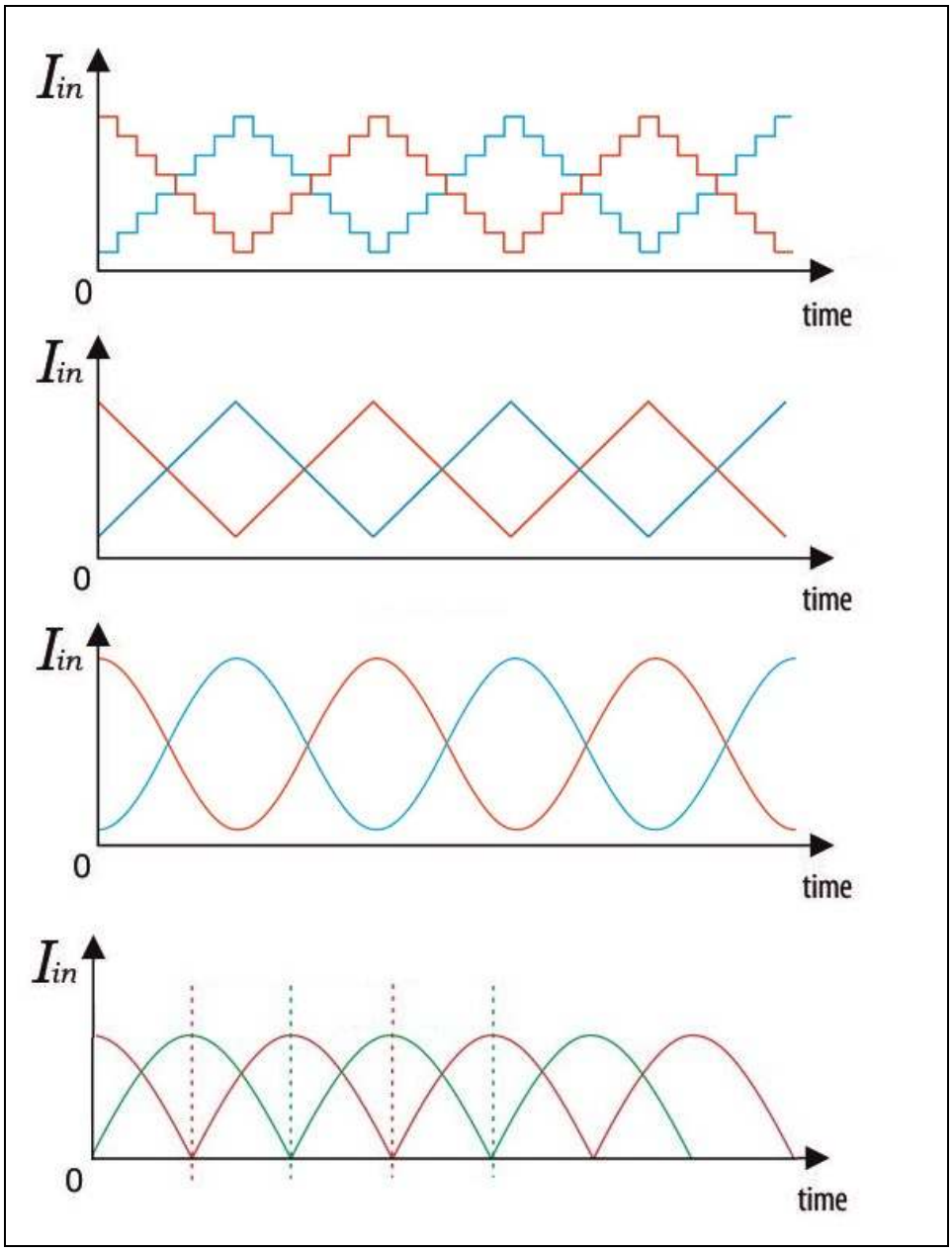
The features that will require this configuration are:

Feature 1. Two north poles facing each other N-N in the electromagnets: With this set-up the magnetic field lines will leave the core of the induced coil placed in the middle inside-out. (Maybe two south poles will also work fine. I have just studied the N-N configuration).



Feature 2. Excite with opposite signals each electromagnet. It will achieve a relative movement of the flux lines cutting the wire back and forth along the whole coil length from side (pole) to side (pole) (that we will name as coil thickness). One magnetic field is increasing and other magnetic field is decreasing, therefore no change in magnetic pressure between them will be created during this swinging motion.

Both signals must operate in opposition: while the first signal is increasing in strength the second one is decreasing, and later: while the second is increasing the first signal will be deceasing.



Note: I think that you could recreate the last signal pattern from the picture by the use of a Thomson Ring (whose induced current will be 90º unphased), and latter, rectifying the output to get a double positive wave and, therefore, the final phase shift will be 180º between the original signal and the induced.
http://sdsu-physics.org/physics180/physics196/Topics/faradaysLaw.html
http://www.journal.lapen.org.mx/march13/3_LAJPE_744_Guido_Pegna_preprint_corr_f.pdf

Feature 3. A rectangular shape in the electromagnets an in the induced coil in order to maximize the flux cutting induction and minimize the flux linking induction. The ratio of both effects will be increased with high values of the induced core perimeter and low values of coil area. This is a new feature which is fundamental for an optimized induction.

$$\frac{E_{cut}}{E_{link}} = \frac{Coil\_Thickness \cdot Coil\_Perimeter}{Coil\_Area}$$

Note that the flux linking induction is produced in the part of the coil linked by the inducer flux lines. This induction will produce a counter induced field (as usual). Therefore it is needed to minimize this flux linking effect. We need a ratio $E_{cut}/E_{link} > 1$ because the induction by flux cutting will be the one that won't produce an opposite Lenz effect because this is a motionless device.

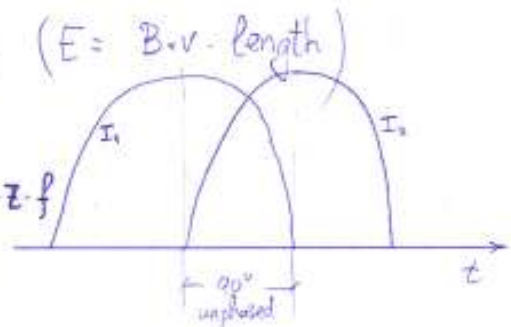
Feature 4. As the flux cutting induction just happens in the zone where the lines are expelled from the core then we need that each turn will be cut during all the time. Therefore, it will be better to wind the induced coil with a tape instead of a wire (the tape must cover the whole coil thickness from side to side). With a tape all the turns will be cut all the time by the flux lines coming out the core. This will not happen with common wires. Tape winding will maximize the flux cutting induction and will minimize the induction by flux linking. I think that tape winding could be mandatory for achieving a ratio E_{cut}/E_{link} well over one.

Conclusion: With these new features I think that this generator will be able to get a much higher induced current than the current used to excite the device. **The Lenz effect in this configuration will reinforce (assist) the inducer field** which is increasing at that moment in the corresponding electromagnet. This configuration will get the Lenz effect working to make a stronger field instead of making a weaker field, as normally happens.

• INDUCTION BY FLUX CUTTING ($E = B \cdot v \cdot \text{length}$)

$B = B_1 + B_2 \approx \text{constant} \approx B_{MAX}$

$v = \frac{\text{Space}}{\text{Time}} = \frac{\text{Induced thickness}}{\frac{1}{2}\text{ Period}} = \frac{z}{\frac{1}{2}\cdot\left(\frac{1}{\text{FREQ.}}\right)} = 2 \cdot z \cdot f$



Length = Perimeter

$E_{CUT} = N \cdot B_{MAX} \cdot 2 \cdot z \cdot f \cdot \text{Perimeter}$

N turns
v speed (crossing the wires)
z Induced thickness

• INDUCTION BY FLUX LINKING ($E = A \frac{dB}{dt}$, surface area, perpendicular case)

$\text{Period} = \frac{1}{\text{Frequency}} \rightarrow \frac{1}{f}$

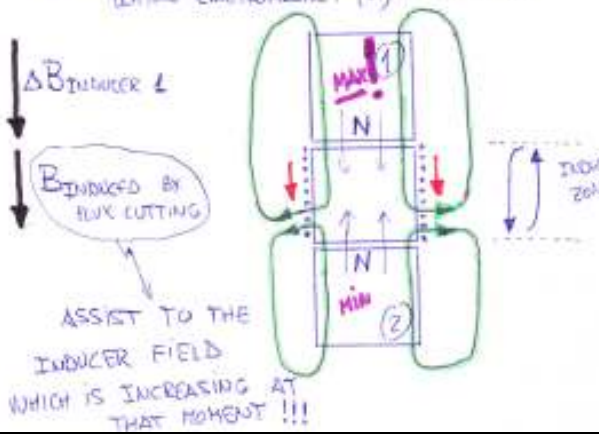
$\frac{dB}{dt} = \frac{\Delta B}{\Delta t} = \frac{B_{MAX} - B_{MIN}}{\frac{1}{2}\text{ Period}} \overset{B_{MIN} \approx 0}{=} \frac{B_{MAX}}{\frac{1}{2}(1/f)} \approx 2 \cdot B_{MAX} \cdot f$

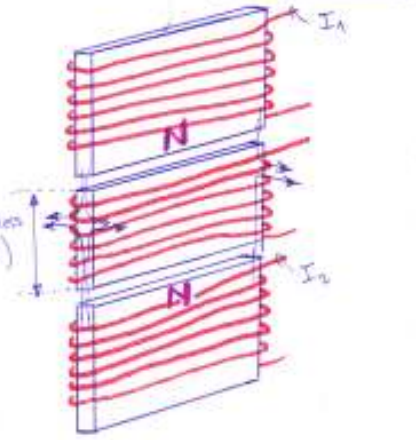
$E_{LINK} = N \cdot A \cdot \frac{dB}{dt} = N \cdot \text{Surface area} \cdot 2 \cdot B_{MAX} \cdot f$

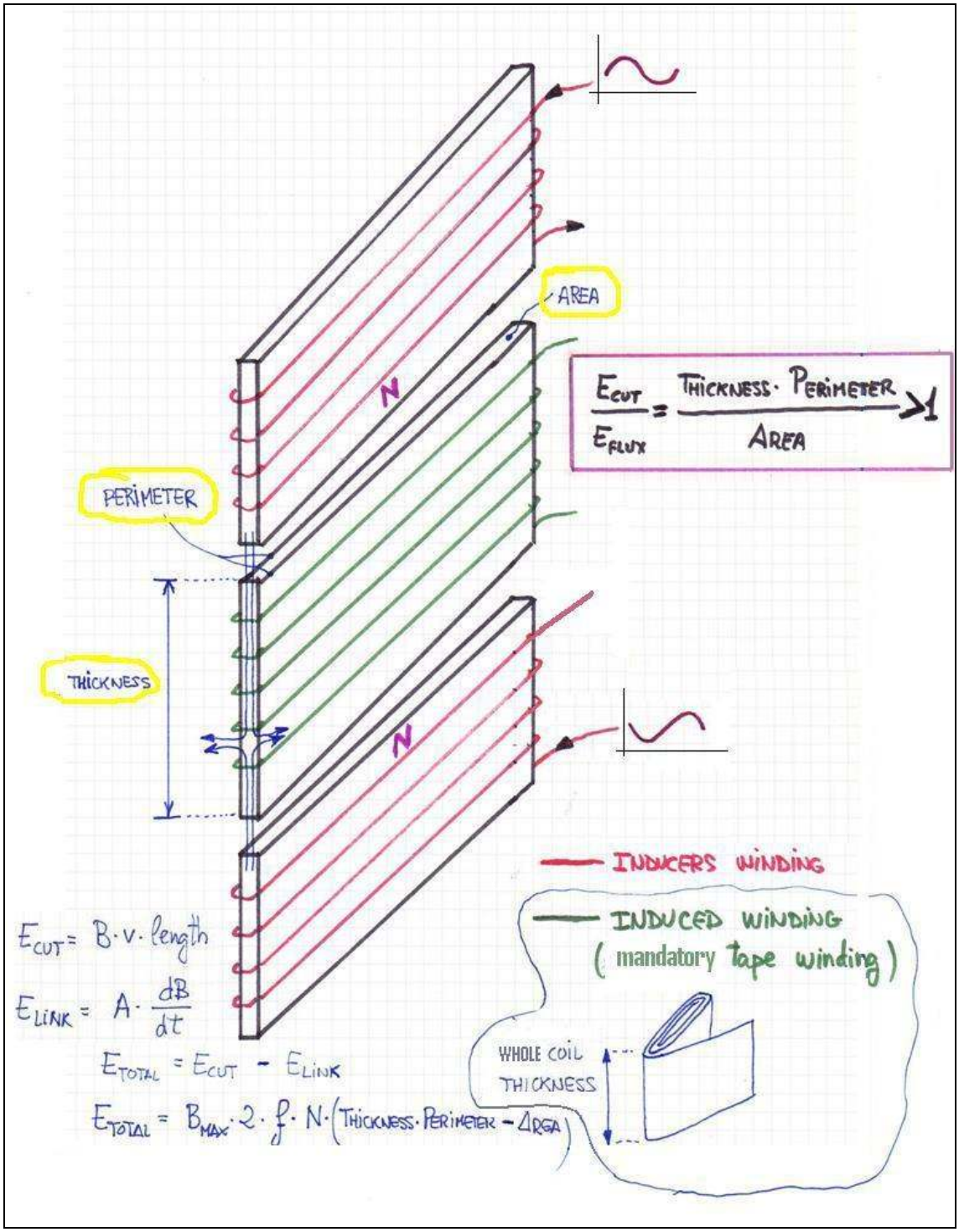
$\frac{E_{CUT}}{E_{LINK}} = \frac{N \cdot B_{MAX} \cdot 2 \cdot z \cdot f \cdot \text{Perimeter}}{N \cdot 2 \cdot B_{MAX} \cdot f \cdot \text{Surface area}} = \frac{\text{Thickness} \cdot \text{Perimeter}}{\text{Surface area}}$

obscure $>> 1$

Example: TOP ELECTROMAGNET (1) INCREASING
BOTTOM ELECTROMAGNET (2) DECREASING






AREA
N
PERIMETER
THICKNESS
N
INDUCERS WINDING
INDUCED WINDING
(mandatory tape winding)
WHOLE COIL THICKNESS
$\frac{E_{CUT}}{E_{FLUX}} = \frac{\text{THICKNESS} \cdot \text{PERIMETER}}{\text{AREA}} \gg 1$
$E_{CUT} = B \cdot v \cdot \text{length}$
$E_{LINK} = A \cdot \frac{dB}{dt}$
$E_{TOTAL} = E_{CUT} - E_{LINK}$
$E_{TOTAL} = B_{MAX} \cdot 2 \cdot f \cdot N \cdot (\text{THICKNESS} \cdot \text{PERIMETER} - \text{AREA})$

ANNEX – Equations

1) Induction by flux cutting the conductors

$$E_{cut} = = B \cdot v \cdot Length = B \cdot v \cdot Coil\_Perimeter \cdot N$$

$$Frequency\ (f) = \frac{1}{Period\ (P)}$$

$$B_{cut} = B_1 + B_2 \approx B_{\max}$$

$$v = \frac{Space}{Time} = \frac{Coil\_Thickness}{1/2 \cdot P} = Coil\_Thickness \cdot 2 \cdot f$$

2) Induction by flux linking two coils

$$E_{link} = N \cdot Area \cdot \frac{dB}{dt}$$

$$\frac{dB_{link}}{dt} = \frac{(B_{\max} - B_{\min})}{1/2 \cdot P} \approx B_{\max} \cdot 2 \cdot f$$ (We may suppose that B_{min} is close to zero)

3) Net Induction

$$E_{total} = E_{cut} - E_{link} = B_{\max} \cdot 2 \cdot f \cdot N \cdot (Thickness \cdot Perimeter - Area)$$

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