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the autogeneous *PAGD* technology

Over a decade ago, Alexandra and I succeeded in isolating a novel regime of plasma discharge, which we termed the autogenously pulsed abnormal glow discharge, or autogenous ***PAGD*** for short.

This plasma regime involves spontaneous pulsation of a saturated glow discharge by a mechanism of auto-electronic emission. And, as in vacuum arc discharges, the autogenous *PAGD* deploys anomalous cathode reaction forces -- of the type that Dr. **Harold Aspden** has, for now over 40 years, been drawing attention to, and which appear to confirm the substance of his ***Law of Electrodynamics***.

The observed pulsation is said to be autogenous because under specific values of diverse physical parameters it occurs (1) with very low applied fields, (2) it is triggered by an auto-electronic emission, and (3) it functions without the need for an external pulse-forming mechanism.

We also designed direct electromotor and inverter applications for the autogenous *PAGD* regime where a direct coupling between a plasma discharge and specific types of motors is sought. We believe we have also discovered that these anomalous cathode reaction forces are the source of an excess energy contributed by the 'vacuum state', that is, by the Plenum, when it is tapped under the various conditions we have isolated and described in great detail.

To capture the energy in excess of breakeven, we designed a simple converter circuit which we named the ***XS NRG***™ System. Essentially it employs 2 battery banks, one at the input and the other at the output of the autogenous *PAGD* reactor plus associated circuitry. Comparing prolonged resistive battery discharges performed before and after operation of the vacuum tube in the autogenous *PAGD* regime yielded typical breakeven efficiencies of 5X and greater.

Over the years we have conducted far more work at our laboratory than we have been able or willing to publish. One is results summary describing a manually operated, stand-alone performance of the *XS NRG*™ conversion system, also referred to as the "Ping-Pong conbtrol method". The idea was to approach a free-running system.

Some Correa patents:

Correa, P. and A. Correa. **Energy conversion system.** Canada patent 2,147,153. 1997.

Correa, P. and A. Correa. **Direct current energized pulse generator utilizing autogenous cyclical pulsed abnormal glow discharges.** U.S. patent 5,502,354. 1996.

Correa, P. and A. Correa. **Electromechanical transduction of plasma pulses.** U.S. patent 5,416,391. 1995.

Correa, P. and A. Correa. **Energy conversion system.** U. S. patent 5,449,989. U. S. patent 5,449,989. 1995.

website

http://www.globalserve.net/~lambdac: Correa, P. and A. Correa. **Power from auto-electronic emissions.** 1996 and, Correa, P and A. Correa. **The Correa/Reich affair.** 1996

selected publications

Aspden, Harold. *Power from space: the Correa invention.* **Energy science report No. 8.** Sabberton Publications, Southampton.

Carrell, M.. *An overview of the Correa invention.* **Infinite Energy.** Volume 2, Issue 8. 1996. p. 10-4.

Carrell, M.. *The Correa PAGD reactor: errata and supplement.* **Infinite Energy.** Volume 2, Number 9. 1996. p. 33-6.

Correa, P. and A. Correa. *Excess energy (XS NRG) conversion system utilizing autogenous pulsed abnormal glow discharge (PAGD).* **Proceedings, 3rd International Symposium on New Energy,** Denver Colorado, 1996. p. 43-62.

Correa, P. and A. Correa. *Metallographic and excess energy density studies of LGEN cathodes subject to a PAGD regime in vacuum.* **Infinite Energy.** Volume 3, Issue 17. 1998 p. 73-8.

Mallove, Eugene [editor]. Volume 2, Number 7. 1996. [entire issue dedicated to Correa findings.

the ping-pong control method

1) The fundamental circuit of Figure 1 (corresponding to Fig. 9 of the U.S. Energy Conversion System patent) employs a single reactor and 2 separate battery packs of unequal size, at the input (drive pack) and at the output (charge pack) of the system, to isolate the two and enable us to measure integral power lost *versus* integral power gained after *PAGD* operation of the reactor. These measurements are best performed by long-term resistive discharges of both battery packs before and after *PAGD* production runs. This means separate current and voltage measurements that are integrated over time for separate input and output batteries.

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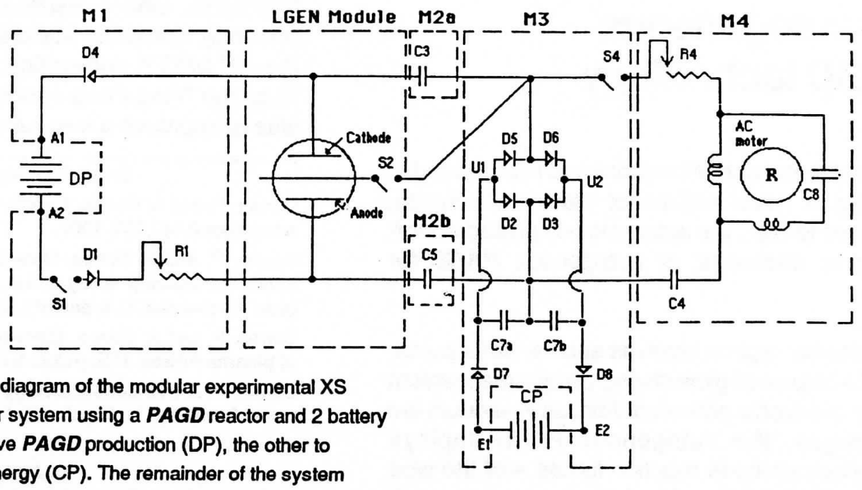


Figure 1. Circuit diagram of the modular experimental XS ***NRG™*** converter system using a ***PAGD*** reactor and 2 battery packs, one to drive ***PAGD*** production (DP), the other to collect excess energy (CP). The remainder of the system consists of M1 (input module), M2a and M2b (filtering and transducing interface), M3 (regulator) and M4 (optional motor).

2) In the present work with a Ping-Pong system, the circuit employed is fundamentally that described in Figure 2 (or Fig. 12 of the cited US patent, except that a single reactor is utilized for purposes of minimizing any variance associated with the utilization of different reactors). The experiment consists of employing 2 battery packs and beginning with 1 pack as the driver and the other pack subdivided into 2 charge packs placed in series. The first 2 *PAGD* production runs therefore charge the second pack in its totality, with each *PAGD* run charging 1/2 of the second pack. Final runs 3 and 4 have these conditions reversed: the second battery pack now serves as drive pack, to charge, via 2 other *PAGD* production runs, the first battery pack which in turn is subdivided into t2 charge packs. Resistive-measurements of power for both packs are made before each experiment and after a full Ping-Pong cycle of 4 *PAGD* runs.

results

The results were obtained from 5 separate experiments performed with 2 identical battery packs, BPA and BPB (46 lead acid gel cells each), without a resistive measurement step before reversal of their functions -- as driver or charge packs.

A representative example of the results from one such experiment is shown in Figures 3 & 4. In both graphs, closed symbols refer to resistive discharges performed before the Ping-Pong cycle and open symbols to discharges performed afterward, *i.e.* performed after 4 consecutive *PAGD* production runs. If operation of the *XS NRG* System failed to capture energy in excess of break-even, we should expect the curves obtained for either battery pack after performance of the *PAGD* runs to exhibit a lower level - or a substantially

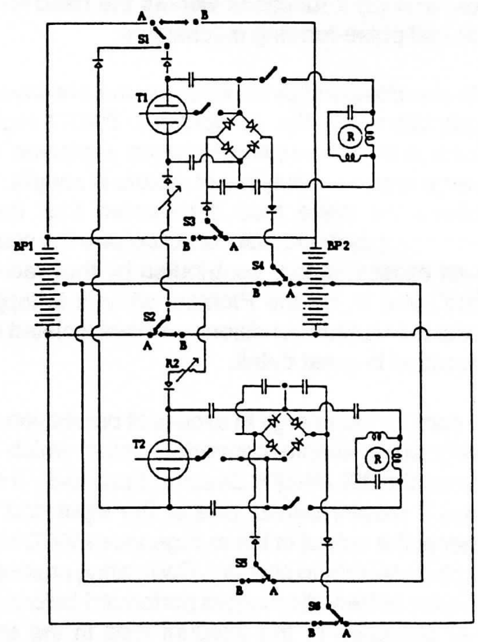


Figure 2. Inport and outport commutation for a basic ***XS NRG™*** converter with 2 parallel driven reactors with series outports at the charge pack and using 2 identical drive charge packs BP1 (BPA) and BP2 (BPB). Once charged, the second pack BPB functions as a drive pack to recharge BPA. This defines a full ***ping-pong cycle*** of battery charging.

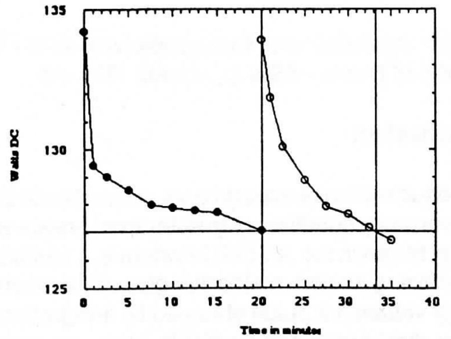


Figure 3. BPA resistive discharge curves before & after the ping-pong *PAGD* runs.

lower level - than the control level observed before the *PAGD* runs, respectively below 127 Watts for BPA (last closed circle of Figure 3), and below 132.7 Watts for BPB (last closed square of Figure 4). This is not what is observed. As shown in this pair of figures, after 1.1 hours of Ping-Pong *PAGD* production per 46-cell pack (i.e. after 2.2 hours of overall autogenous *PAGD* production), both batteries did not lose *but rather gained charge.* Both packs showed a gain of energy consistent with excess energy capture: as indicated by the open circle and open square curves of the final resistive discharges, the observed curves begin well above the respective power level limits, and both take time to reach these limits. All the curves for all 5 experiments show that both packs gained energy as a function of *PAGD* production, when compared to the respective power limit levels before *PAGD* production was undertaken.

This behaviour is thus consistent with that observed in a pack that gained energy, such as the typical behaviour of a *charge* pack reported in our Energy Conversion System patents and papers. And it is also indicates that both packs are behav-

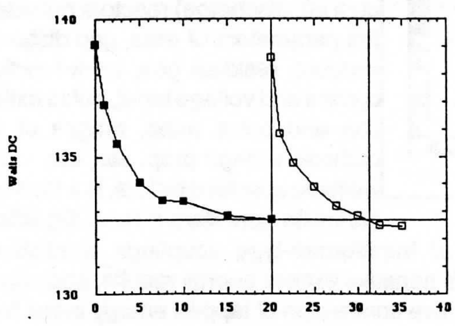


Figure 4. BPB resistive discharge curves before and after the ping-pong *PAGD* runs.

ing in all respects identically under the same conditions with regard to the shunting of the excess energy captured by the System. The behaviour of the packs is symmetric if the energy distribution is a balanced one. This underlines the importance of proper timing, pulse frequency and switchover in this type of experiment, as the inevitable result of performing these experiments without proper control of such parameters is to bias charge towards one pack or towards the other.

Results from all five experiments are summarized in the following set of Tables. In Table 1, the net energy and power gains observed for all 5 experimental pairs are shown expressed as a function of the time it takes to charge a pack of 46 cells by the procedure already described. Net power gained, *which was observed in all cases examined,* is expressed for both BPA and BPB together. Total pulses is the cumulative value of all *PAGD* events for all the runs of each experimental pair. The fixed, residual argon pressures obtained at the thermocouple are shown on the far right column. As can be seen, the total number of pulses varied 10-fold between 1,000 and 10,000.

TABLE 1

Exptl. Pair #	PAGD Time (hours)	Net Gain (Watts)	Net Energy Gain (Wh)	Total Pulses	Pressure (Torr)
1st	1.11	53.25	47.46	1,342	0.09
2nd	1.00	69.94	69.94	1,546	0.1
3rd	1.03	62.9	61.07	2,329	0.15
4th	0.31	32.82	104.22	10,786	0.2
5th	0.87	38.72	44.25	2,558	0.2

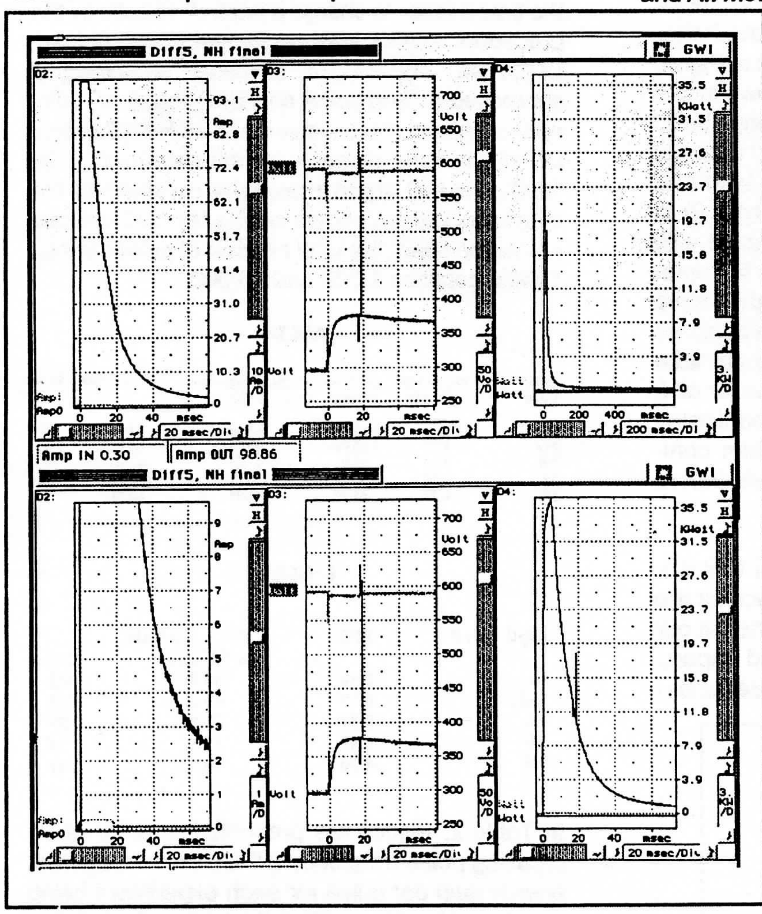
TABLE 2

Exptl. Pair #	PPS	Net Gain (mWh/pulse)	(Joules)
1st	0.18	39.7	143
2nd	0.19	45.2	163
4th	0.31	27.0	97
5th	0.41	15.1	54
3rd	4.70	3.0	11

In Table 2, results are presented in order of increasing pulse frequency (PPS), the average net energy gain per pulse for each experiment being expressed in either milliWatt-hours or Joules. It is evident that the net energy gain per pulse increases with decreasing *PAGD* frequency. This corroborates the data and the correlation presented in our Energy Converter System patents (see Table 9 of the cited US patent) with non-

"Ping-Pong" Systems and as obtained by other methods of measurement.

To date, excess energy values as high as 200 to 300 mWh/pulse, that is up to 1000 Joules per pulse, have been obtained at pulse rates on the order of less than 0.05 PPS, in the *XS NRG* Converter circuits. An example is shown in Figure 6 utilizing our data aquisition Superscope system: From left to right are shown current, voltage and power for input and output pulse waveforms. On the lower sequence, the resolution of the current panel on the left is amplified 10X on the ordinate to permit us to visualize input current, which peaks at 0.3A. The output current clips for 5 milliseconds



well above 100A (estimated at *ca.* 135 A), as can be seen from the left panel on the top. The right panel on the lower sequence shows the power waveform with the time resolution of the abscissa amplified ten-fold. Despite the clipping of the output current pulse, the breakeven efficiency measured for the duration of the sample was over 20X in terms of power - 46W in, versus 1kW out.

conclusion

The results of these experiments demonstrate that the over-unity condition of greater than breakeven energy return in the *XS NRG* system is a verifiable fact utilizing varied methodologies. The excess energy values per pulse obtained by integration of power discharges from reliable batteries match the results we have previously reported employing other approaches: the data acquisition system analysis, the oscilloscopic data (*see* Correa, P. and A.. *Metallographic and excess energy density studies of LGEN cathodes subject to the autogenous* PAGD *regime in vacuum.*) and the prolonged resistive battery discharges for drive and charge packs not subject to ping-pong cycling.

A note of caution

At this point a note of caution regarding verification of these facts is in order: After many years of work with the autogenous *PAGD* and vacuum arc discharges, we have come to the conclusion that auto-electronic emission mechanisms always tap Aether energy. But this coupling with the 'vacuum state' is one that can either obey the 2nd Law or violate it instead. In this respect, there is a curious relation between these 2 alternative outcomes of operation of these types of plasma systems. To begin with, (1) operation of the *PAGD*/IVAD (interrupted vacuum arc discharge) reactors outside of the parameters of area, gap distance, vacuum, residual gas, work-function, current and voltage input, pulse extinction and pulse rates, ranges of the cathode voltage drop, etc, etc, which we have specified before, is a total and complete non-starter. Next, (2) utilization of transformer-type couplings consistently yields negative excess energy results, because of inductive conversion of tapped energy in the form of a magnetic reaction of the Aether medium. This may well be what did not happen, but should have, in the power station that **Alexandr Chernestkil** is reputed to have destroyed - a balancing of action and reaction. And if this normal safety valve failed, it is most likely because, despite magneto-inductive couplings, a situation of resonance might well have taken place there and then. (3) Capacitative isolation of the system fares no better, not just because the tendency for the vacuum to deploy a negative resistance is counteracted, but also because the dynamic capacitance of the tube is interfered with. This is a strange phenomenon, but of direct correlation with the total incapacity to charge a top-notch electroscope, even one with its case grounded, on *certain* days. Furthermore, any placement of a capacitor in parallel with the vacuum gap remits the reactor to operation as a strobotron-type device. (4) Another common mistake is a lack of control of the constant heat and power dissipated by the glow phase of the discharge, which is especially promoted by unregulated or current-regulated supplies, inductive couplings, etc. (5) So too is the utilization of relays and vacuum switches in the design of single pack controllers or in the automation of dual pack systems - which introduces vacuum and/or atmospheric arc discharges, coupling of dynamic gap inductances, resistances and capacitances, with all manner of unwanted outcomes.

aether energy conversion scenarios

The positive tapping of energy from the Plenum may take place without this captured excess energy being converted into electric energy. There are 4 different conversions that happen or are likely to happen under these conditions, and which couple to -- as well as may hinder -- the electric conversion. Here I will only mention 2 actions which also appear to be linked and have already made their way to the published literature -

(1) One is the conversion of the energy deployed by the anomalous cathode reaction forces into excess heat, as Aspden explicitly considered in his 1977 British patent. Essentially, this is the mechanism whereby a vacuum arc discharge which is uninterrupted proceeds, under controlled parameters, to generate excess energy in the form of heat.

(2) The other is what Aspden calls "The proton factor" in his 1988 paper, the same factor which, in several of his rather interesting papers and letters, **Paul Rowe** has reported. Here we are confronted with the condensation of mass-energy out of the Aether by the action of the discharge.

epilogue

There is another story I would still like to tell you about, that of one **Heinrich Anton Müller**, born in 1865 in Boltingen, Switzerland, from humble origins. Having worked in the hillside vineyards Vaud canton near Lake Geneva, Müller invented an ingenious vine trimmer. However, in the process of trying to patent it, his counsel, agents and sponsor colluded to expropriate his invention - and the lucrative exploitation of the vine trimmer was pursued by them and still others. When Müller openly rebelled against this, he was promptly institutionalized in the psychiatric hospital at Münsingen, near Bern, under the standard pretext that he suffered from schizo-paranoid ideas of grandeur and persecution. Seeing himself incarcerated for life for the crime of having invented a machine whose use was of value and profit to others who stole his rights, Müller promised never again to invent another machine which was of use to anybody, in the hope that his machines never again could be stollen, never again be employed for profit, never again be subject to trade and exchange. So, **M. Thévoz** writes in his 1976 book, *Art Brut*:

"Müller occupied himself with drawings and inventions, the latter with a view to achieving perpetual motion."

This he claimed to have successfully accomplished sometime later (Figures 6 and 7), in a form that reminds one of the ***Bessler Wheels*** (see Collins, J.. *Perpetual motion: an ancient mystery solved?* 1997). His machines - consisting of many wheels engaged in a ceaseless whirl - recall the contemporary efforts of **Man Ray** to transform useful objects into useless ones. Müller would have succeeded in doing so with a perpetual motion machine, a machine which, by its constant capture of energy, by its constant performance of movement, should be in principle considered the most useful there could ever be.

Yet, the notion that such a machine could exist is at once dangerous for our social system and rejected as foolish, as an impossibility. It is dangerous to our social system because there is this common perception that it would make society independent from the oil, coal and nuclear industries - and dangerous because it evokes the notion that if Space is brimming with energy, then power can be had for free. This is also part of Müller's notion - the realization that a perpetual machine ultimately cannot be sold or find a market, even if the inventor is determined to succeed.

But why are such machines rejected as foolish and impossible? Because they raise the specter of getting something from nothing. Yet, consider for a moment what such a machine is, in the words of **Thomas Phipps Jr.**, *it begets something for something, even if unequal, not something from nothing!*

Now consider what it stands for in our social world: perpetual motion has been banned to the asylum, to the freak show - where it still finds a way to sell itself - precisely because everybody, the scientist and the common man, persists in believing that it can only equate to getting something from nothing. Here is where we find the Müller effect, so to speak, where the scientist can only escape by art, and the artist by science - where the machine of the highest utility is useless for the existing social system. It is only fitting that all of Müller's machines were destroyed by order of the hospital management, without a further thought being given to them. After all, what could a paranoid-schizophrenic possibly have to offer?

☐ ***Paulo N. Correa***

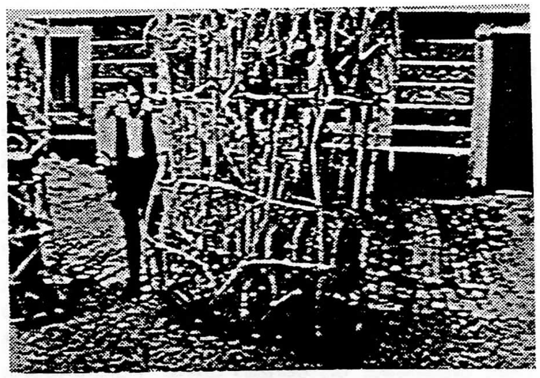


Figure 6. H. A. Müller with two of his perpetual motion wheel machines at the Müssingen Asylum (near Bern, Switzerland), sometime before 1917.

Figure 7. Another of the **Müller** perpetual motion machines.

A Bit of Experimental Science: The Autogenous PAGD Technology

Background and Methods

Over a decade ago, Alexandra and I succeeded in isolating a novel regime of plasma discharge, which we termed the autogenously pulsed abnormal glow discharge, or autogenous PAGD for short. This plasma regime involves spontaneous pulsation of a saturated glow discharge by a mechanism of auto-electronic emission. And, as in vacuum arc discharges, the autogenous PAGD deploys anomalous cathode reaction forces—of the type that Dr. Aspden has, for now over forty years, been drawing attention to, and which appear to confirm the substance of his Law of Electrodynamics. The observed pulsation is said to be autogenous because under specific values of diverse physical parameters it occurs (1) with very low applied fields, (2) it is triggered by an auto-electronic emission, and (3) it functions without the need for an external pulse-forming mechanism.

Alexandra and I also designed direct electromotor and inverter applications for the autogenous PAGD regime where a direct coupling between a plasma discharge and specific types of motors is sought. We believe we have also discovered that these anomalous cathode reaction forces are the source of an excess energy contributed by the "vacuum state," that is, by the Plenum, when it is tapped under the various conditions we have isolated and described in great detail. To capture the energy in excess of breakeven, we designed a simple converter circuit which we named the XS NRG™ System. Essentially it employs two battery banks, one at the input and the other at the output of the autogenous PAGD reactor plus associated circuitry. Comparing prolonged resistive battery discharges performed before and after operation of the vacuum tube in the autogenous PAGD regime yielded typical breakeven efficiencies of 5x and greater.

For those of you who want to find out more about the history of the PAGD and our original flndings you should consult: (1) our three U.S. patents—available in their entirety on the web at the IBM patent site; (2) the latest patent granted last November to us by Canada; (3) the essays at our web site; (4) the paper Alexandra and I submitted to the 3rd International Symposium on New Energy in 1996; (5) the metallographic report printed in *Infinite Energy* early this year; (6) the entire report Dr. Aspden wrote on our findings; (7) the *Infinite Energy* issue which Dr. Mallove dedicated to it; and (8) the Mike Carrell articles also published in *IE* (see references).

Over the years we have conducted far more work at our laboratory than we have been able or willing to publish. One of the subjects of my talk today is precisely a summary of the results of one such previously unpublished report describing a manually-operated stand-alone performance of the XS NRG™ conversion system, also referred to as the Ping-Pong control method. The essential idea was to approach a free-running system. Let us begin by introducing:

1) The fundamental circuit of Figure 1 shown here—and corresponding to Figure 9 of the U.S. Energy Conversion System patent (U.S. Energy figures referred to in this article are not shown here, see patent references, Ed.)—as it employs a single reactor and two separate battery packs of unequal size, at the input (drive pack) and at the output (charge pack) of the system, precisely to isolate the two and enable us to measure integral power lost versus integral power gained after PAGD operation of the reactor. These measurements are best performed by long term resistive discharges of both battery packs before and after PAGD production runs. This effectively means separate current and

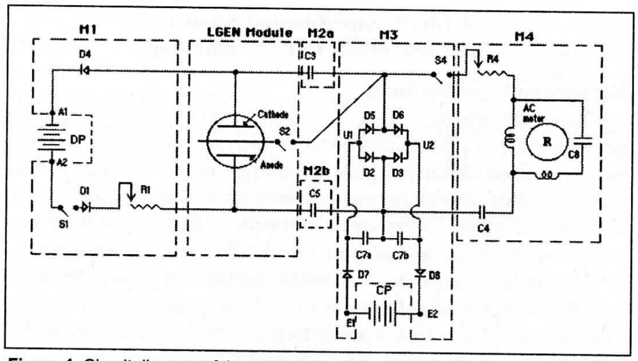


Figure 1. Circuit diagram of the modular experimental XS NRG™ Converter System employing a single autogenous PAGD (LGEN™) reactor and two battery packs, one to drive PAGD production (Drive Pack, DP), the other to collect excess energy (Charge Pack, CP). Excluding the battery packs and the LGEN™ reactor unit, the remainder of the System is composed of four other types of modules: module M1 is the input module, M2a and M2b the filtering and transducing interface modules, M3 the regulator module and M4 the optional motor module.

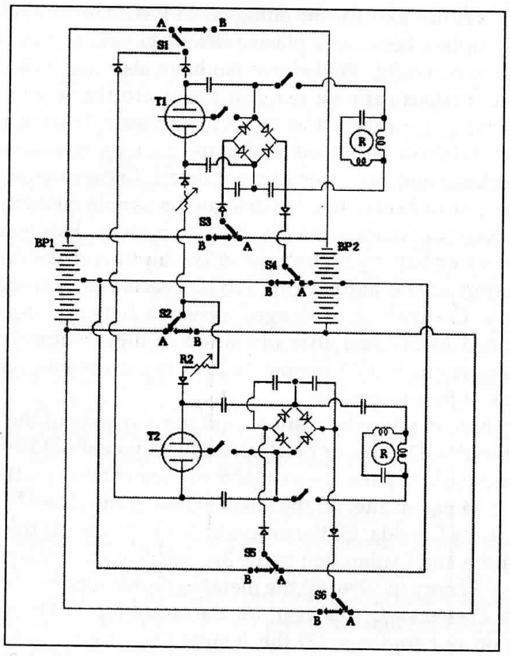


Figure 2. Inport and Outport commutation for a basic XS NRG™ Converter employing two parallel driven LGEN™ reactors with series outputs at the charge pack, and utilizing two identical drive and charge packs (BP1 or BPA, and BP2 or BPB), that are fully interchangeable. Once charged, the second pack (BP2 or BPB composed of two charge packs in series) will function in turn as a drive pack to recharge BP1 or BPA. This defines a full Ping-Pong cycle of battery charging and it can also be accomplished with a single reactor being manually operated to fulfill the distinct functions - in this case, any two PAGD production runs are not simultaneous (for separate reactors), but consecutive (for the same reactor).

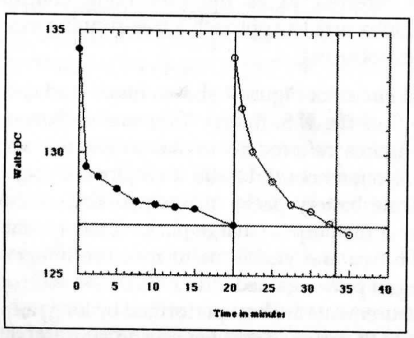


Figure. 3. BPA resistive discharge curves before and after the Ping-Pong PAGD runs (1st pair, Expt 1).

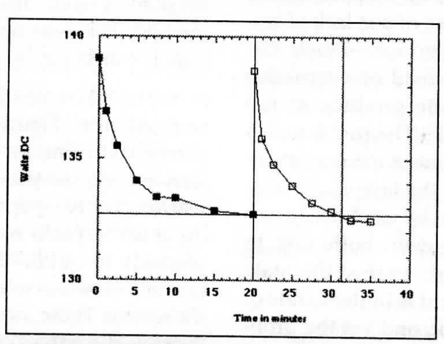


Figure 4. BPB resistive discharge curves before and after the Ping-Pong PAGD runs (2nd pair, Expt 1).

voltage measurements that are integrated over time for separate input and output batteries.

2) In the present work with a Ping-Pong system, the circuit employed is fundamentally that described in Figure 2, or Figure 12 of the cited U.S. Energy Conversion System patent, except that a single reactor is utilized for purposes of minimizing any variance associated with the utilization of different reactors. The experiment consists of employing two battery packs and beginning with one pack as the driver and the other pack subdivided into two charge packs placed in series. The first two PAGD production runs therefore charge the second pack in its totality, with each PAGD run charging one half of the second pack. Final runs three and four have these conditions reversed: the second battery pack now serves as drive pack, to charge, via two other PAGD production runs, the first battery pack which in turn is subdivided into two charge packs. Resistive-measurements of power for both packs are made before each experiment and after a full Ping-Pong cycle of four PAGD runs.

Results

The results presented in this talk were obtained from five separate experiments performed with two identical battery packs, BPA and BPB (46 lead acid gel cells each), without a resistive measurement step before reversal of their functions—as driver or charge packs.

A representative example of the results from one such experiment is shown in Figures 3 and 4. In both graphs, closed symbols refer to resistive discharges performed before the Ping-Pong cycle and open symbols to discharges performed afterward—*i.e.* performed after four consecutive PAGD production runs. If operation of the XS NRG System failed to capture energy in excess of breakeven we should expect the curves obtained for either battery pack after performance of the PAGD runs to exhibit a lower level—or a substantially lower level—than the control level observed before the PAGD runs, respectively below 127 Watts for BPA (last closed circle of Figure 3), and below 132.7 Watts for BPB (last closed square of Figure 4). This is not what is observed. As shown in this pair of figures, after 1.1 hours of Ping-Pong PAGD production per 46-cell pack (*i.e.* after 2.2 hours of overall autogenous PAGD production), both batteries did not lose *but rather gained charge.* Both packs showed a gain of energy consistent with excess energy capture: as indicated by the open circle and open square curves of the final resistive discharges, the observed curves begin well above the respective power level limits, and both take time to reach these limits. All the curves for all five experiments show that both packs gained energy as a function of PAGD production, when compared to the respective power limit levels before PAGD production was undertaken.

This behavior is thus consistent with that observed in a pack that gained energy, such as the typical behavior of a *charge* pack reported in our Energy Conversion System patents and papers. And it is also indicates that both packs are behaving in all respects identically under the same conditions with regard to the shunting of the excess energy captured by the System. The behavior of the packs is symmetric if the energy distribution is a balanced one. This underlines the importance of proper timing, pulse frequency and switchover in this type of experiment, as the inevitable result of performing these experiments without proper control of such parameters is to bias charge towards one pack or towards the other.

Results from all five experiments are summarized in the following set of Tables. In Table 1, the net energy and power gains observed for all five experimental pairs are shown expressed as a function of the time it takes to charge a pack of 46 cells by the procedure already described. Net power gained, *which was observed in all cases examined*, is expressed for both BPA and BPB

Table 1.

Exptl. Pair #	PAGD Time (hours)	Net Gain (Watts)	Net Energy Gain (Wh)	Total Pulses	Pressure (Torr)
1st	1.11	53.25	47.46	1,342	0.09
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Table 2.

Exptl. Pair#	PPS	Net Gain (mWh/pulse)	Net Gain (Joules)
1st	0.18	39.7	143
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4th	0.31	27.0	97
5th	0.41	15.1	54
3rd	4.70	3.0	11

together. Total pulses is the cumulative value of all PAGD events for all the runs of each experimental pair. The fixed, residual argon pressures obtained at the thermocouple are shown on the far right column. As can be seen, the total number of pulses varied ten-fold between 1,000 and 10,000.

In Table 2, results are presented in order of increasing pulse frequency (PPS), the average net energy gain per pulse for each experiment being expressed in either milliWatt hours or Joules. It is evident that the net energy gain per pulse increases with decreasing PAGD frequency. This corroborates the data and the correlation presented in our Energy Converter System patents (see for example Table 9 of the cited U.S. patent) with non-Ping-Pong Systems and as obtained by other methods of measurement.

To date, excess energy values as high as 200 to 300 mWh/pulse, that is up to 1000 Joules per pulse, have been obtained at pulse rates on the order of less than 0.05 PPS, in the XS NRG™ Converter circuits. An example is shown in Figure 5 utilizing our data aquisition Superscope™ system:

From left to right are shown current, voltage and power for input and output pulse waveforms. On the lower sequence, the resolution of the current panel on the left is amplified ten-fold on the ordinate to permit us to visualize input current, which peaks at 0.3A. The output current clips for 5 milliseconds well above 100 A (estimated at ca. 135 A), as can be seen from the left panel on the top. The right panel on the lower sequence shows the power waveform with the time resolution of the abscissa amplified ten-fold. Despite the clipping of the output current pulse, the breakeven efficiency measured for the duration of the sample was over twenty-fold in terms of power—46 W in, versus 1kW out.

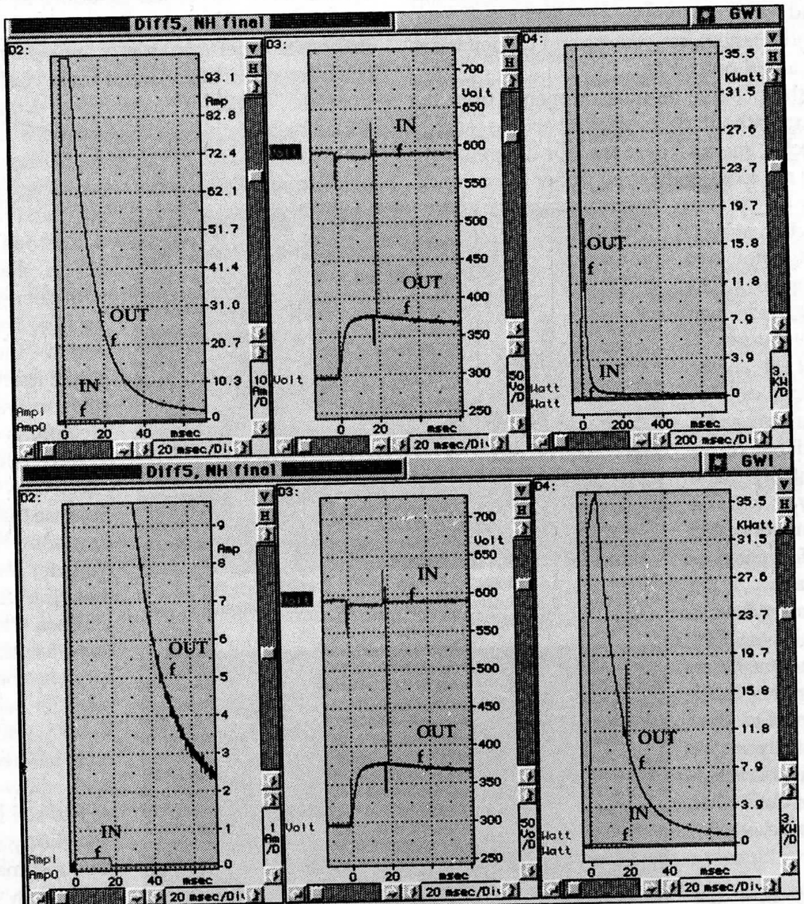

Figure 5. Both Superscope™ data acquisition and analysis panels present the current, voltage and power waveform channels for the same autogenous PAGD event sampled for 0.8 sec at a resolution of 80 microseconds. Output waveform curves are in blue, input waveform curves in red. For the duration of the sample the apparent breakeven efficiency was over 20-fold. DP=46 cells; CP=23 cells. [Colors not reproduced here. Ed.]

Conclusion

The results of these experiments demonstrate that the overunity condition of greater than breakeven energy return in the XS NRG™ System is a verifiable fact utilizing varied methodologies. And the excess energy values per pulse obtained by integration of power discharges from reliable batteries match the results we have previously reported employing other approaches—namely, the data acquisition system analysis, the oscilloscopic data[1] and the prolonged resistive battery discharges for drive and charge packs not subject to Ping-Pong cycling.

A Note of Caution

At this point a note of caution regarding verification of these facts is in order. After many years of work with the autogenous PAGD and vacuum arc discharges, we have come to the conclusion that auto-electronic emission mechanisms always tap Aether energy. But this coupling with the "vacuum state" is one that can either obey the Second Law or violate it instead, and, in this respect, there is a curious relation between these two alternative outcomes of operation of these types of plasma systems. To begin with, (1) operation of the PAGD/IVAD (interrupted vacuum arc discharge) reactors outside of the parameters of area, gap distance, vacuum, residual gas, work-function, current and voltage input, pulse extinction and pulse rates, ranges of the cathode voltage drop, etc., which we have specified before, is a total and complete non-starter. Next, (2) utilization of transformer-type couplings consistently yields negative excess energy results, because of inductive conversion of tapped energy in the form of a magnetic reaction of the Aether medium. This may well be what did not happen, but should have, in the power station that Chernestkii is reputed to have destroyed—a balancing of action and reaction. And if this normal safety valve failed it is most likely because, despite magneto-inductive couplings, a situation of resonance might well have taken place there and then. (3) Capacitative isolation of the system fares no better, not just because the tendency for the vacuum to deploy a negative resistance is counteracted, but also because the dynamic capacitance of the tube is interfered with. This is a strange phenomenon, but of direct correlation with the total incapacity to charge a top-notch electroscope, even one with its case grounded, on *certain* days. Furthermore, any placement of a capacitor in parallel with the vacuum gap remits the reactor to operation as a strobotron type device. (4) Another common mistake is a lack of control of the constant heat and power dissipated by the glow phase of the discharge, which is especially promoted by unregulated or current-regulated supplies, inductive couplings, etc. (5) So too is the utilization of relays and vacuum switches in the design of single pack controllers or in the automation of dual pack systems—which introduces vacuum and/or atmospheric arc discharges, coupling of dynamic gap inductances, resistances and capacitances, with all manner of unwanted outcomes.

On the other hand, the positive tapping of energy from the Plenum may take place without this captured excess energy being converted into electric energy. There are four different conversions that happen or are likely to happen under these conditions, and which couple to—as well as may hinder—the electric conversion. Here I will only mention two actions which also appear to be linked and have already made their way to the published literature: (1) One is the conversion of the energy deployed by the anomalous cathode reaction forces into excess heat, as Dr. Aspden explicitly considered in his 1977 British Patent. Essentially, this is the mechanism whereby a vacuum arc discharge which is uninterrupted proceeds, under controlled parameters, to generate excess energy in the form of heat. (2) The other is what Dr. Aspden has called "The Proton Factor" in his 1988 paper, the same factor which, in several of his rather interesting papers and letters, Dr. Paul Rowe has reported. Essentially we are here confronted with the condensation of mass-energy out of the Aether by the action of the discharge.

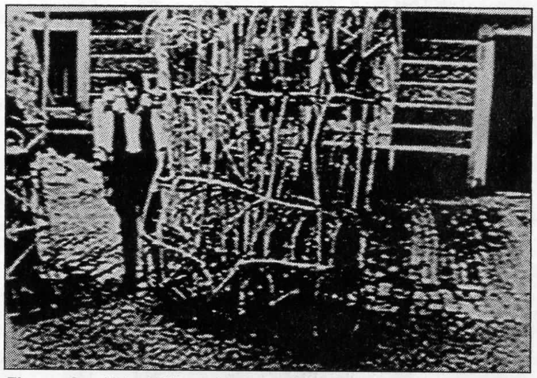

Figure 6. H.A. Müller with two of his perpetual motion wheel machines at the Münsingen Asylum (near Bern, Switzerland, estimated at sometime before 1917).

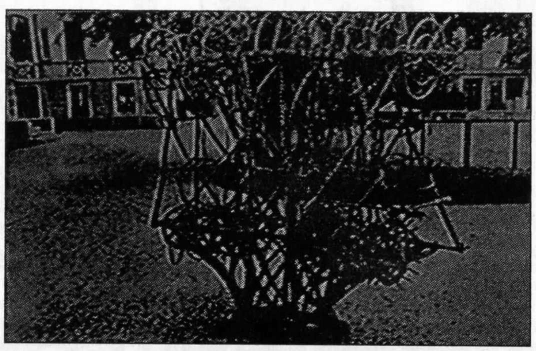

Figure 7. Another of the Müller perpetual motion machines.

Epilogue

It is possible that by now the isles are empty of listeners, likely in protest—and that my voice is getting hoarser and harsher. But there is another story I would still like to tell you about, that of one Heinrich Anton Müller, born in 1865 in Boltingen, Switzerland, from humble origins. Having worked in the hillside vineyards of the canton of Vaud, near the Lake of Geneva, Müller invented an ingenious vine trimmer. However, in the process of trying to patent it, his counsel, agents and sponsor colluded to expropriate his invention—and the lucrative exploitation of the vine trimmer was pursued by them and still others. When Müller openly rebelled against this, he was promptly institutionalized in the psychiatric hospital at Münsingen, near Bern, under the standard pretext that he suffered from schizo-paranoid ideas of grandeur and persecution. Seeing himself incarcerated for life for the crime of having invented a machine whose use was of value and profit to others who stole his rights, Müller promised never again to invent another machine which was of use to anybody, in the hope that his machines never again could be stolen, never again be employed for profit, never again be subject to trade and exchange. So, Thevoz writes in his book (Thevoz, M., *Art Brut*, 1976.): "Müller occupied himself with drawings and inventions, the latter with a view to achieving perpetual motion."

This he claimed to have successfully accomplished sometime later (see Figures 6 and 7), in a form that reminds one of the Bessler Wheels (see Collins, J., *Perpetual Motion: An Ancient Mystery Solved?* 1997). His machines, consisting of many wheels engaged in a ceaseless whirl, recall the contemporary efforts of Man Ray to transform useful objects into useless ones. Müller would have succeeded in doing so with a perpetual motion machine, a machine which, by its constant capture of energy, by its constant performance of movement, should be in principle considered the most useful there could ever be. Yet, the notion that such a machine could exist is at once dangerous for our social system and rejected as foolish, as an impossibility. It is dangerous to our social system because there is this common perception that it would make society independent from the oil, coal and nuclear industries—and dangerous because it evokes the notion that if Space is brimming with energy, then power can be had for free. This is also part of Müller's notion—the realization that a perpetual machine ultimately cannot be sold or find a market, even if the inventor is determined to succeed.

But why are such machines rejected as foolish and impossible? Because they raise the specter of getting something from nothing. Yet, consider for a moment what such a machine is—in the words of Thomas Phipps Jr., *it begets something for something, even if unequal, not something from nothing*! And now consider what it stands for in our social world: perpetual motion has been banned to the asylum, to the freak show—where it still finds a way to sell itself—precisely because everybody, the scientist and the common man, persists in believing that it can only equate to getting something from nothing. Here is where we find the Müller effect, so

Correa continued on page 45

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to speak, where the scientist can only escape by art, and the artist by science—where the machine of the highest utility is useless for the existing social system. It is only fitting that all of Müller's machines were destroyed by order of the hospital management, without a further thought being given to them. After all, what could a paranoid-schizophrenic possibly have to offer?

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