Scientists freely acknowledge that more than 80% of the matter and energy in the universe is "dark matter" and "dark energy" where "dark" only means that we cannot readily see that form of matter and energy. The highly respected British scientist Dr Harold Aspden, has been awarded a patent for a system to collect this energy directly. The patent, which is one of several similar patents included in this eBook, is reproduced here:

# Patent GB2390941 21st January 2004 Inventor: Dr. Harold Aspden

# **ELECTRICAL POWER GENERATING APPARATUS**

#### Abstract

An electric generating device includes two capacitors 1 and 2, each having a pair of concentric electrodes and in-series connection to inductors 3 and 4. Each capacitor has an electrode connected to a high voltage DC source 5 and another connected to a low-voltage or earth terminal 6. An AC Power output may be produced from terminals between each capacitor and inductor or from a transformer where the inductor is the primary winding. Electricity production may be sustained by drawing energy from the vacuum medium surrounding the electrodes.

### Field of the Invention

This invention relates to a new and non-conventional means for the generation of electrical power. The energy source is the quantum underworld of space, the aether medium of the vacuum state, long recognised for its ability to allow the storage of electric field energy by reacting as its intrinsic charge is displaced, a process understood by physicists by reference to the research findings of Clerk Maxwell.

#### **Background of the Invention**

The current state of the art of electrical power generation does not recognise the possibility of ultimately tapping energy from the aether. Physics is taught on the basis that energy cannot be created or destroyed, inasmuch as it is conserved in all physical processes, though it can be degraded in its usefulness, as by burning of hydrocarbons and conversion into heat which dissipates as by radiation into outer space. The aether as a source or as an absorber of energy is not deemed to serve any specific role in the physics of energy deployment, it having been dismissed from consideration by invoking the notion of 'field energy' without admitting the specific physical reality of something in space that accounts for the properties involved.

Theoretical physicists have, however come to suspect that space devoid of matter is nevertheless a seething sea of activity subject to sporadic energy fluctuations which can create electron-positron pairs that exist momentarily before decaying back into their quantum underworld. Yet those same physicists deny all possibility that this energy resource of space itself can be exploited to provide useful power on a scale large enough to rival the role played by atomic power plants and fossil fuel generating installations.

Curiously, they do subscribe to the belief that one day they may be able to generate power on a viable commercial scale from fusion reactors by processes replicating what they believe sustains the Sun's heat output as hydrogen is transmuted into different atomic forms. In contrast with this rather elusive objective, it having proved beyond reach even after half a century of effort, this invention is based on success in generating power by replicating, not the Sun's onward energy decay, but rather a process akin to that by which the Sun itself was created from energy drawn from the enveloping aether medium.

The invention to be described below has emerged from an in depth theoretical investigation into the properties of the aether and quite independently of any of the well known claims of published record which feature at the fringe of mainstream scientific literature. A recent and very well-presented account of what amounts to a century of relevant energy history is the book 'The Search for Free Energy' by Keith Tutt, published in 2001 by Simon Schuster (ISBN 0-684-86660-9). Here in this book is a comprehensive background of information concerning the energy devices of several researchers but the references to Nikola Tesla and T. Henry Moray are particularly pertinent to the subject of this invention and, though imposing a limitation on what can be legitimately claimed by this patent application, they serve also as a basis for a very important lesson to those engaging in this field of invention.

The lesson is that it is not sufficient to build and demonstrate something that works, if you do not fully understand why what you have devised actually does work. This is especially the case here where one is claiming a source of energy hitherto unknown. The invention to be described below will, in its broadest

sense, appear to be quite similar to what T. Henry Moray is said to have demonstrated in showing that substantial electrical power could seemingly be drawn from the aether using a simple wire antenna strung between two poles.

However, as will be seen, the antenna is not needed and the reason is that the energy source is not the radiant emission by some process involving radio wave propagation through the anther, but rather what can best be described as a phase-lock that couples the apparatus with the quantised motion of electric aether charge. There is a technique, to be described below, by which it is possible to exploit this phase-lock condition by setting up an energy oscillation involving an apparatus component and its enveloping aether, the result being that energy in an immediately useful electrical form is imported into the apparatus from that aether.

# **Brief Description of the Invention**

According; to one aspect of the invention, an electric power delivery circuit comprises two capacitors, each having a pair of electrodes formed by a pair of metal cylinders having concentric axes, each capacitor having an associated inductor series-connected to it to form a capacitor-inductor unit, DC voltage excitation means connected to a parallel combination of the two capacitor-inductor units, whereby to apply between corresponding electrodes of the capacitors a DC bias voltage which primes them with electric charge, and power output terminals, one at each point of connection between a capacitor and its associated inductor, whereby to provide for an AC power output owing to oscillations of electric charge between the two capacitors at the resonant frequency of the capacitor-inductor units.

According to another aspect of the invention, an electric power-delivery circuit comprises two capacitors, each having a pair of electrodes formed by a pair of metal cylinders having concentric axes, each capacitor having an associated inductor series-connected to it to form a capacitor-inductor unit, DC voltage excitation means connected to a parallel combination of the two capacitor-inductor units, whereby to apply between corresponding electrodes of the capacitors, a DC bias voltage which primes them with electric charge, each inductor being the primary winding of an electrical transformer, the secondary winding of which serves to provide an AC power output owing to oscillations of electric charge between the two capacitors at the resonant frequency of the capacitor-inductor units.

According to a feature of the invention the capacitors have no intervening solid or liquid dielectric medium separating their concentric electrodes.

According to another feature of the invention, two inductors are coupled electromagnetically by having a common ferrite core and their primary windings are connected to their associated capacitors in the polarity configuration which assures that, in their mutually resonant state, electric charge is exchanged between the two capacitors.

According to yet another feature of the invention, the central axes of both cylindrical electrode capacitors are mutually parallel.

According to a further feature of the invention, an electrical power delivery system comprises a plurality of these electric power delivery circuits, where the central axes have different angular orientations as between the different circuits.

According to a still further feature of the invention, in such a power delivery system, the difference in angular orientation of the central axes is at least 600.

# **Brief Description of the Drawings**



Fig.1 shows an electrical power generating circuit incorporating two concentric cylindrical capacitors having central axes which are parallel.



Fig.2 shows a modified version of the circuit of Fig.1 with a transformer system providing the inductors and an output winding.



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**Fig.3** illustrates a mutually inclined capacitor system comprising two pairs of concentric cylindrical capacitors.

#### **Detailed Description of the Invention**

The invention draws energy from the aether. To understand why the invention works, one needs to understand the process by which the aether stores energy when an electric field is set up across the dielectric separating two capacitor plates. Moreover, one needs to understand the means by which the aether determines the quantum of action, specifically in the form of the Bohr magnetron and the unit of angular momentum linked to Planck's constant.

It is not sufficient to imagine that electric charge in the aether is displaced from a rest position in a background continuum of opposite charge polarity to which it is attracted by a restoring force. Indeed, one must consider such action to be superimposed on a system of charge which has an underlying jitter motion, a quantum theory theme associated with the German physicist Heisenberg (Zitter-bewegung, which has the dictionary meaning 'Circular fluctuation movement, of spin'). When these two factors are combined, and the constraint added of there being a phase-lock which keeps that jitter motion in synchronism as between the charges, one finds that the physical theory involved has some very interesting consequences.

One of these consequences is that a spherical or cylindrical volume of aether, if spinning bodily about a central axis, will acquire a magnetic moment and set up an electric field inside that sphere or cylinder that is directed radially with respect to the spin axis. A summary analysis is presented in the Appendix to this specification, being, in part a quotation from pages 31-33 of a booklet entitled 'The Theory of Gravitation' which the Applicant of this invention, Dr. Harold Aspden, authored in 1959 and duly published early in 1960.

The induction of electric charge by 'aether spin' was there shown to give a physical basis, both qualitative and quantitative, for the geomagnetic moment, the property of body Earth of setting up a magnetic field which created magnetic North and South poles at latitudes offset from the geographic poles, with the geomagnetic polar axis precessing slowly around the Earth's spin axis at a rate of several hundred years per revolution. By identifying its source as a rotation of a sphere of aether coextensive with body Earth, a volume of aether relative to which the Earth could have a component of motion even though the aether spin frequency is equal to that of the Earth, this axial tilt of some 17 degrees has a physical explanation.

However, that aspect of the aether's role was not seen at the time as offering anything of promise technologically. The physics involved is nevertheless very relevant and directly pertinent to the experiments on which this invention is based, the findings of which would otherwise be quite baffling scientifically. The applicant has, over the 40 or so years since the theory was first published, given a great deal of consideration to the theoretical implication that, just as aether spin can set up electric charge displacement inside coextensive matter, so the setting up of an electric field directed radially with respect to an s axis can induce aether spin about that axis and with it develop angular momentum. Indeed, in the author's onward publications on this subject, as, for example, 'Physics Unified' published in 1980 by Sabbeton Publications, P.O. Box 35, Southampton, England (ISBN 0 85056 0098), it is shown how the onset of the force of gravitation when a disordered aether consolidated into an orderly structured form caused protons to accrete more rapidly than electrons, owing to their higher mutual rate of gravitational acceleration. This created stars with all initial positive charge and the associated aether spin resulted in the stars acquiring their spin states and shedding matter which consolidated into planets which share the angular momentum so generated. The

aether with its property of spin as related by its electric charge density according to the formula presented in the Appendix is therefore the key factor if we attempt to account for the creation of the stars which populate our universe.

That same formula, however, is equally valid if applied to the circumstance where a radial electric field is set up between the concentric cylindrical electrodes of a capacitor formed around a hollow dielectric cylinder. It tells us how fast the aether within that dielectric will spin. The related theoretical analysis shows that the quantum phase-lock feature of the aether imports from the external aether world an amount of energy equal to that supplied in setting up aether charge displacement, this imported energy being the dynamic energy corresponding; to the acquired aether angular momentum. Guided by the argument concerning stellar creation one can see that this aether angular momentum can be transferred to matter and this process also has its energy transfer implications.

However, one can wonder what happens if, after setting up a radial electric field in that capacitor having concentric electrodes, the applied voltage is reduced, thereby withdrawing electric field energy from the capacitor. The imported energy present in kinetic energy form as a cylindrical shell of aether spins about the central axis of the capacitor will tend to sustain electric charge displacement. To conserve energy, since the aether phase-lock cannot force the expulsion of energy by obliging the enveloping aether universe to keep in step, this energy can only be shed by augmenting that released electrostatically. In other words, the net result is that an up and down fluctuation of the electric charge condition of the capacitor must give rise to an electric energy output that is, for the lowest dielectric constant (the permittivity of the vacuum), double the input in each cycle of change. One can then envisage an oscillation escalating in energy content powered almost wholly by aether input before one taps into that source of power to draw off energy at a rate consistent with stable operation.

This is, of course, a bewildering prediction that no physicist could imagine as being at all possible and yet, given the relevance of the theoretical argument involved, as applied to the phenomenon of geomagnetism and stellar creation, which are supported by strong evidence in that book 'Physics Unified', once such a notion is conceived it surely has to be put to the test by experiment. This then, after decades of effort before this realisation has dawned, is the basis on which the Applicant has only now come to appreciate the amazing technological possibilities that lie before us and is asserting by this patent specification that energy can in fact be tapped from the aether on a commercially viable scale.

Given that aether theory indicates that the special form of capacitor described above will, if subject to an oscillatory charge condition, generate an excess of energy, a question to consider is why such a phenomenon has not manifested itself in bench-type experiments performed in numerous electrical laboratories over the past one hundred years. Ostensibly the implication is that the capacitor will exhibit a negative resistance if used with an inductor as a component in what would become a self-resonating circuit.

The answer to this may be that if such a phenomenon has occurred it has passed unnoticed or been regarded as spurious or noise-related, being something connected with radio interference etc. Alternatively, and as a function of the size and scale of the apparatus, the effect may have lacked an exciting trigger needed to overcome an energy threshold set by such factors as circuit contact resistance or contact potentials as well as the basic resistance of the inductors which, with the capacitors, form the resonant circuit.

Note that, even for a capacitor of quite large physical dimensions, having regard to its accommodation on top of a laboratory bench, the actual capacitance is necessarily quite small. being of the order of a billionth of a farad. This means that a capacitor charge fluctuation of the order of a volt would only imply energy fluctuations that are of the order of a billionth of a joule per cycle. The situation is quite different if perchance a DC bias voltage of, say, 5,000 volts is applied to the capacitor. Then a small superimposed voltage fluctuation makes the related energy fluctuations very much larger with much greater prospect of an escalating self-resonance being triggered.

With this in mind the applicant perceived a possible prior art link with the experimental claims reported by Dr. Moray who, in 1929 is said (see pages 46-50 of the above-referenced recently-published book by Keith Tutt) to have powered six 100 watt light bulbs plus a standard 575 watt electric flat iron, merely by providing an earth connection and coupling an input lead to an overhead wire antenna. The apparatus involved had no

other source of input power but included a special arrangement of capacitors and presumably some kind of high frequency inductor/transformer unit.

In spite of the attention given to the Moray demonstrations, it seems that the secrets involved in the design and construction of the apparatus remain unknown and so cannot feature in the prior art of published record. Nor, indeed, can the anecdotal evidence of Moray's efforts serve to show that the subject invention has been put to prior use. The technology as to how to replicate the Moray device, always assuming it did perform as claimed, has therefore to be rediscovered and, indeed, given that there is reference to his detectors incorporating some special substance which was referred to as 'Swedish stone', possibly the dielectric he used in his capacitor construction, there is a considerable mystery to unravel. More to the point, however, one is led to believe that Moray was implying that the energy he was tapping was radiant energy drawn from the aether, with that antenna featuring prominently because, without it being connected, the energy output fell to zero. However, as he surely may well himself have known, one just cannot draw power on such a scale from a simple overhead wire strung between two poles and so, without know how, he would have suspected that the energy inflow was coming into his capacitors via the action of that mystery substance he called 'Swedish Stone'.

The applicant here suggests that, based on an insight into the quantum workings of the aether medium as outlined above, the curious discovery demonstrated decades ago by Dr. Moray may have been attributable to setting up an oscillation in a resonant circuit including, a concentric cylindrical electrode capacitor which had a voltage bias of the order of a thousand and more volts fed from a connection to that overhead antenna but drawing no significant current from that antenna other than enough to prime his capacitor with charge and stimulate a high frequency fluctuation which could initiate an escalating circuit oscillation tapping aether energy from the aether spin induced in the capacitor dielectric.

This is speculation, but it is sufficient to justify the Applicant's interest in constructing a capacitor and seeking to verify the assumptions just made. Notwithstanding, the reference alcove to Dr. Moray and the note below concerning Nikola Tesla, what it leads to is new invention by virtue of full disclosure of details of operation and manufacture of something hitherto unknown, the actual means by which to harness a source of energy latent in the aether medium and deemed by those familiar with state of the art knowledge to be beyond man's reach. Furthermore, there are supplementary inventive features of a special nature because of the way the subject invention exchanges energy between two capacitors and also because the optimisation of aether power output from the capacitors is found to be a function of the orientation of the capacitor axes relative to the cosmic background owing to the Earth's rotation.

It seems here appropriate to mention something described by Nikola Tesla in his U.S. Patent No. 685,958. This was filed on 21 March 1901 and granted on 5 November 1901. It was entitled: 'Apparatus for the Utilisation of Radiant Energy'. By installing two metal plates, one high above the ground and the other at ground level, with wires connecting the plates to separate electrodes of a capacitor, it was stated that the capacitor became charged to a very high potential, the energy input being that radiated to Earth from outer space. This may well have motivated the efforts of T. Henry Moray but, so far as this Applicant's invention is concerned, no such input from overhead components is necessary as a quite different energy source is at work, namely the zero-point vacuum energy activity of our quantum underworld.



Referring now to **Fig.1**, two capacitors **1**, **2** formed by concentric cylindrical metal electrodes and having their central axes parallel, form part of a resonant circuit combination by each being series-connected to an inductor **3**, **4** having a ferrite core. Their inner electrodes are connected to a high-voltage DC source **5** and their outer electrodes are separately connected through their corresponding inductors to a low-voltage or earth terminal **6**. A resistive load device **7** is connected via switch **8** between the junction points of the capacitors and inductors.

In operation, owing to spurious electrical signals induced in the inductors, or to an imposed electrical stimulus provided by means not shown, the priming electric charge of the two capacitors will develop oscillations as charge is exchanged between the two capacitors. There is energy inflow owing to the quantum coupling of electric charge displaced between the concentric electrodes of each capacitor and the quantum activity of the underworld of the enveloping aether. This affords an electrical energy output which is supplied upon closure of switch **8**.



Referring to Fig.2, the inductors **3**, **4** are shown to have a common ferrite core **9** and to have secondary windings **10,11**, which, by transformer action, can supply electrical power output between terminals **12** and **13**.



The apparatus of **Fig.1** and **Fig.2** will, when viewed in side elevation, appear as having a capacitor form with an outer cylindrical electrode within which there is a slightly elongated inner cylindrical electrode, to facilitate the high-voltage connection to that inner electrode. **Fig.3** shows, in very simple diagrammatic form, two such arrangements **14**, **15**, with the central axes of the two pairs of capacitors mutually inclined. There may, however, be three or more such pairs of capacitors, each pair constituting a circuit such as is depicted in **Fig.1** or **Fig.2**.

The reason for configuring multiple capacitor systems, each with its own power output, in a combined manner with the outputs merged to supply an overall energy producing system is that the aether energy output of each capacitor unit is a function of axis orientation. This is because the quantum activity of the aether has its own preferred axis and, as the Earth rotates there is variation of the relative axial orientation in a daily cycle. Also, one needs to cater for systems applying, this invention in a mobile application, which also implies change of orientation and by having; the mutually inclined capacitor axis configurations one can be assured that the potential power output avoids the null situation that can occur if the capacitor axes of a stand-alone unit of **Fig.1** or **Fig.2** were to be at right angles to the aether quantum spin axis.

The capacitor electrodes can be of thin metal sheet foam and so of light weight and preferably are not spaced apart by any dielectric medium, whether liquid or solid. They need to be held apart by a simple insulating frame structure. The reason is, that the only dielectric medium that is operative in the functioning of the invention is the vacuum medium and to have a normal dielectric present implies more capacitance and so extra current oscillation without extra energy gain per cycle of oscillation. The key factor assuring operation is the need for circuit resistance to be low compared with capacitance that is solely attributable to the vacuum medium combined with the high voltage priming which greatly enhances the power output to weight factor.

The two capacitors of a pair are preferably of identical capacitance and structure, as are the inductors, so that the oscillation period of the two resonant sectors of the circuit is the same. The common ferrite core feature of the **Fig.2** configuration assists in this role.

The apparatus will normally be designed to operate at a capacitor frequency of the order of 100 KHz or more, and a voltage of 10,000 V or higher, and so the transformer output of **Fig.2** will be preferable with voltage duly adjusted to suit the application. The high frequency AC so produced can then be converted as needed by using the appropriate technology of known form.

### Appendix

Extract from pp. 30-31 of 'The Theory of Gravitation', 1960 printed publication by the Applicant. Note that the earlier pages explained that the aether comprises a system of electric particles in a cubic crystal-like distribution set in a uniform background continuum of opposite charge polarity, the particle system and the continuum both sharing a common circular orbital motion of radius **r** and the relative velocity between the particles and continuum being the speed of light.

### The Effect of Aether Rotation

Consider what happens when a large volume of the aether is rotating bodily. The continuum and particle system rotate together. There will be no resultant magnetic moment unless the particle distribution is disturbed. An evident disturbance is the centrifugal effect arising from aether rotation, but for the angular

velocities of magnitude found in the solar system this effect is of negligible consequence. A much more important effect arises from the synchronising interaction between particles in the rotating volume. This requires that the particles shall move about their neutral points at the same angular velocity. Thus if a particle is to have a velocity component V directed in the plane of its orbit, whilst retaining a mean velocity C/2, its speed along its orbit must be of the form  $C/2 + V \cos(P)$ , where P is the angle subtended by a line joining the particle and the centre of its orbit relative to a fixed reference datum in the inertial frame. To satisfy the above requirement the centre of the orbit cannot be the neutral point. Evidently the particle is distant from this neutral point by  $\mathbf{r} + (2 \mathbf{V} \mathbf{r} / \mathbf{C}) \cos(\mathbf{P})$ . As **V** is much less than **C** the effect of this is that the particle is moving around a circular orbit whose centre has been displaced a distance 2 V r / C perpendicular to V in the plane of the orbit. If V is much less than  $w x \cos(A)$ , where w is the angular velocity at which the aether rotates, x is the distance of the aether particle from the axis of rotation, and A is the angle of tilt of the axis to the common axial direction of the aether particle system, this displacement distance is 2 (w x r / C) cos(A). Consider a disc-like section of the rotating aether of radius x and unit thickness. Then, the effective charge displacement arising from the effective physical displacement of the particles is 2 pi x s (2 w x r / C) cos(A). The disc has acquired a uniform charge density of 4(w r s / C) cos(A) esu/cc. The polarity of this charge depends upon the direction of rotation of the aether.

When evaluated from the aether data already presented, the charge density is found to be: 4.781 w cos(A) esu/cc. This charge density represents a charge component which rotates with the aether.

### Calculation of the Geomagnetic Moment

For Earth, **w** is 7.26 x 10-5 rad/sec and **A** is 23.5<sub>0</sub>. Thus the Earth's charge density is, from the above expression, 0.000319 esu/cc. The rotation of this charge gives rise to a magnetic moment of: (0.000319)(4 pi / 15) w R5 / C where **R** is here the radius of the Earth's aether.

If **R** is greater than the Earth's radius (6.378x108 cm) by a small factor **k**, the Earth's theoretical magnetic moment becomes  $(1 + 5\mathbf{k})6.8 \times 1025$  emu. This may be compared with the measured value of the Earth's magnetic moment of 8.06 x 1025 emu.

An upper limit of 0.035 is imposed on **k** suggesting the Earth's aether terminates at a mean height of about 140 miles above the Earth's surface. This suggests that the ionosphere may be a phenomenon arising at the aether boundary.

### Claims

**1** An electric power delivery circuit comprising two capacitors each having a pair of electrodes formed by a pair of metal cylinders having concentric axes, each capacitor having an associated inductor seriesconnected to it to form a capacitor-inductor unit, DC voltage excitation means connected to a parallel combination of the two capacitor-inductor units, whereby to apply between corresponding electrodes of the capacitors, a DC bias voltage which primes them with electric charge, and power output terminals, one at each point of connection between a capacitor and its associated inductor, whereby to provide for an AC power output owing to oscillations of electric charge between the two capacitors at the resonant frequency of the capacitor-inductor units.

**2** An electric power delivery circuit comprising two capacitors, each having a pair of electrodes formed by a pair of metal cylinders having concentric axes, each capacitor having an associated inductor seriesconnected to it to form a capacitor-inductor unit, DC voltage excitation means connected to a parallel combination of the two capacitor-inductor units, whereby to apply between corresponding electrodes of the capacitors a DC bias voltage which primes them with electric charge, each inductor being the primary winding of an electrical transformer, the secondary winding of which, serves to provide an AC power output owing to oscillations of electric charge between the two capacitors at the resonant frequency of the capacitor-inductor units.

**3** An electric power delivery circuit according to Claim 1 or 2, wherein the capacitors have no intervening solid dielectric medium separating their concentric electrodes.

**4** An electric power delivery circuit according; to Claim 1 or 2, wherein the capacitors have no intervening liquid dielectric medium separating their concentric electrodes.

**5** An electric power delivery circuit according to Claim I or 2, wherein the two inductors are coupled electromagnetically by having a common ferrite core and their primary windings are connected to their associated capacitors in the polarity configuration which assures that, in their mutually resonant state, electric charge is exchanged between the two capacitors.

**6** An electric power delivery circuit according to Claim 1 or 2, wherein the central axes of both cylindrical electrode capacitors are mutually parallel.

**7** An electric power delivery system comprising a plurality of electric power delivery circuits according to Claim 6, wherein the central axes have different angular orientations as between the different circuits.

**8** An electric power delivery system according to Claim 7, wherein the difference in angular orientation of the central axes is at least 600.

# Comments by Dr Aspden on 19th March 2006:

# **OUR ENERGY FUTURE**

#### A Message of Vital Importance

The world needs a new source of energy, one that is not an exhaustible commodity subject to power-play as between nations. Yes, one can dream and then awake to say this is impossible, but I urge those with the necessary skills to heed what I have to say in my three messages below.

First, however, let me introduce myself. My name is Dr. Harold Aspden. I am retired and elderly but have had a lifelong scientific interest in fundamental physics relevant to the energy theme. My 6-year university education in U.K. was at Manchester University and Cambridge University (Trinity College). My 33-year working career in U.K. comprised 9 years with English Electric and 24 years with IBM. Though having high technical qualifications (see below), being interested in the specialised field of protecting inventions pertaining to electrical engineering, I became a Chartered Patent Agent and later a European Patent Attorney. My last 19 years with IBM were spent as Director of IBM's European Patent Operations. This was followed, in my early retirement, by 9 years as a Visiting Senior Research Fellow at Southampton University and thereafter my scientific interest has been a private pursuit evidenced by my writings as on this and my related websites. My formal qualifications are: B.Sc., Ph.D., C.Eng., F.I.E.E., F.I.Mech.E., C.Phys., M. Inst.P., C. Sci., Wh.Sc.

**Message No. 1:** Physicists have come to recognise that there exists a quantum underworld alive with energy and permeating all space. However, their related research aims merely at probing experimentally the spectrum of elementary particles that have a transient existence as a product of that energy activity. The reward they seek is recognition should new particles be discovered and, by their properties, reveal connections with other particles that help in formulating a new theory or verifying an existing theory. Sadly, they do not see that quantum underworld as a potential source of energy that we can harness. Nor have they understood how most of the energy shed in creating matter formed the elementary particle which bears the name proton and which, together with the electron, constitutes the hydrogen atom.

There is also a secret they have yet to fathom. It is the effect of creating a radial electric field centred on electrical charge around which that quantum underworld can develop a state of spin that causes it to shed energy. In the presence of a radial electric field set up by an electrically charge body, whatever constitutes that quantum underworld that permeates all space shares a motion like that of sequence dancers who keep in step with one another as they move around the dance floor, a synchronous motion, which, in the presence of that radial electric field can only be held if a secondary motion develops around an axis centred in that radial field.

How else could the Sun spinning about its own axis have come into existence? Here we have gravity attracting hydrogen atoms and pulling them so closely together that ionisation occurs, meaning freeing some

electrons from their proton bonding, and so, because the mass of a proton is very much greater than that of the electron, creating a Sun having a body that is positively charged sitting within an outer shell of negative electron charge. Two free protons experience a mutual rate of gravitational acceleration that is 1836 times that experienced by the interaction of two electrons. The body of the Sun, therefore, has a uniform mass density and a uniform positive charge density enclosed within a compensating negative charge at its surface.

This is because gravitational compaction forces balance the expansion forces attributable to electrostatic repulsion. It further means the presence of a radial electric field within the body of the Sun and, in turn, owing to the effect of this field on the space medium of the quantum underworld, this induces a state of spin accompanied by release of energy from that medium to feed the kinetic energy of that spin.

In depth analysis of the physics involved, meaning the effect of the resulting radial electric field on that quantum underworld, then allows one to calculate the resulting rate of spin and thereby understand how the solar system was created.

So, if the reader is a physicist, here is the way forward and full guidance on this is to be found on my parallel website www.aspden.org or in a new book of mine entitled Creation - The Physical Truth, that will be published in the near future. However, if the reader is not a physicist but has the technological aptitudes of the university-trained electrical engineer then it is Message No. 2 below that warrants attention.

**Message No. 2:** If it were possible to generate electrical energy by tapping an omnipresent medium it is surely to be expected that the occasional natural phenomenon might already have hinted at this possibility.

Consider, therefore, the thunderball, a glowing spherical object sometimes seen, especially following a lightning storm. It appears aethereal in the sense that it can move unimpeded through matter, yet remains an enigma, an unsolved mystery of record in the annals of science. Lightning strokes are high current discharges which, as electrical engineers well know, can develop a 'pinch effect' squeezing the electroncarried current into a filamentary flow within a cylindrical channel of positively charged air.

That implies a radial electric field, a pulsating radial electrical field if the discharge surges, a sure recipe for something to happen that could form a miniature Sun, the thunderball. So when we look at a thunderball we are looking at a natural phenomenon that has drawn energy from that quantum underworld of space, energy which is then dissipated, but energy shed by a process we can surely harness, once we understand the physics involved.

Scientists lacking the necessary imagination do not seek to understand how the thunderball is created and so they seldom write about it. So here we have something to think about. It is Nature's message telling us: "Produce a radial electric field, one that pulsates, and you can develop a spin that taps energy from the quantum underworld of space." As engineers, however, we need to be practical and, if possible, we should avoid trying to replicate a phenomenon that involves powerful electric discharges, if there are better ways in which to proceed.

So now I come to my primary theme in this Message No. 2. It is a brief survey of a few of the claims of record that have declared a mysterious energy gain and have features which I see as relevant to what has been said above. In particular I draw attention to the research findings of four different pioneers in what has come to be termed 'The Search for Free Energy', this being the title of a really excellent book by Keith Tutt, published by Simon & Schuster in 2001. Three of these are described in considerable detail in that work. I now ask you to keep in mind my reference to a radial electric field as I mention each of them below and do realise that electrical structures of cylindrical form are a key feature.

Nikola Tesla is famous for his research concerning electromagnetic induction and high voltage solenoidal transformer apparatus (Tesla coils) and he is said to have demonstrated an automobile which derived its power by tapping energy from space. He did not disclose its design details and died leaving us with a mystery. Tesla coils comprise large solenoidal windings concentrically mounted and operate with high voltage pulsations between their cylindrical forms which must produce a pulsating radial electric field between those windings. So, although electromagnetic induction effects are the primary focus of attention, there is here scope for the electrical action described in Message No. 1 above. Tesla may well have stumbled experimentally upon a way of tapping energy from space, but without understanding the true

underlying physical process.

Dr. Henry Moray, a pioneer of the 1920-1930 era, demonstrated something which merely needed a kind of antenna, a wire connected from tree tops to earth via electrical apparatus in the boot (trunk) of his automobile. It is said that the latter included several capacitors and that a kilowatt level of power was generated. In this case the automobile merely carried the test apparatus for demonstration at a location remote from a built-up area and any electrical power line interference. No doubt Moray was seeking to follow in Tesla's footsteps by drawing energy from the Earth's electric field, known to be measured in hundreds of volts per metre. It is likely that those capacitors were of Levden jar type configuration, that is cylindrical in structural form, and that the wire linked to tree tops tapped charge at a kilovolt voltage level. However, the output power claimed could surely not have come from that source. Therefore one must assume that Moray used that treetop voltage input merely to prime the voltage across his capacitor electrodes, whilst incorporating some special feature in the operation of his electrical circuit that gave access to the energy of the quantum underworld. Capacitors having concentric electrodes of cylindrical form will, when charged electrically, have a radial electric field in the space between the electrodes. Several capacitors coupled together could give rise to oscillations of charge as between the capacitors and so lead to a pulsating radial electric field. Yet though demonstrating as possible something that should not be possible, a mysterious inflow of energy able to illuminate several light bulbs, Moray could surely not have understood the true physical process that was feeding energy into his apparatus. Again I see this as relevant to what is stated in Message No. 1.

Stan Meyer demonstrated apparatus that included sets of concentric tubular electrodes enclosed in a cylindrical container filled with water, the electrodes being fed by high voltage (5 KV) pulses. Combustible gas was generated, a mixture of hydrogen and oxygen, the burning of which generated far more heat than could be accounted for by the electrical energy input. Energy was being tapped as if from nowhere unless the source was the ambient medium of space itself. Here there was a pulsating radial electric field and electric charge oscillating between different components in Meyer's apparatus. Meyer did not offer any useful explanation as to the physical process underlying what he could demonstrate but persisted in conveying the message that the invention was wonderful and talking about a multiplicity of applications such as powering automobiles, ships etc. This is the project not mentioned in Keith Tutt's book. As for the Tesla and Moray projects Meyer's research was a U.S. based activity. It did, however, attract the interest of a British Admiral, Admiral Tony Griffin who was concerned with the impact of new technology upon the marine industries.

Griffin witnessed Meyer's demonstrations and was interested in its development. Indeed an article on the subject mentioning Admiral Griffin and entitled 'Free Energy for Ever' was published in the January 1991 issue of the U.K. magazine Wireless World. The importance of the article was evident from the fact that the Editor of that magazine was the author.

Paul Baumann, a member of a Christian community in a isolated valley high in the Swiss Alps has constructed working free energy devices which have been demonstrated to visitors. The first working prototype was relatively small and included a pair of glass Leyden jars, concentric capacitors. Keith Tutt in his book devotes 30 pages to this subject. The high voltage needed to prime the capacitor operation was generated by a Wimshurst machine driven by the electric power generated. The community has, however, kept design details secret. In spite of such information as is available the underlying physical process governing its operation remains a mystery. Yet I can but feel confident that what I say in my Message No. 1 provides the answer.

**Message No. 3:** My Message No. 1 has drawn attention to the physical process by which the vast amount of energy needed to create the Sun was extracted from the quantum underworld that permeates all space. My Message No. 2 has drawn attention to the reported efforts of just some of the several energy research pioneers who actually demonstrated apparatus that, contrary to accepted scientific principles, drew energy from a mystery source. My Message No. 3, based on recognising the common physical feature can but be the suggestion that technology for generating our power needs from the hidden underworld of space has to be possible. Accordingly, I will now outline what I see as the basis on which to build the ultimate power generating device that harnesses the physical principles presented in Message No. 1.

Being 78 years of age and no longer having access to university research laboratory facilities, I can but leave it to others to take note and, hopefully, prove me right. If proved right then the world will benefit and the

impending energy crisis will be avoided. Hopefully also, the scientific community might then be willing to accept my claim as to how the quantum underworld deploys its energy into proton creation and is active in producing the phenomenon of gravitation. I know of no other theory that has been able to derive theoretically the value 1836.152 of the proton/electron mass ratio. I would like to see that recognised as my contribution to man's knowledge.

Consider a capacitor formed by a pair of concentric cylindrical electrodes, something many of us remember from the school physics laboratory, the Leyden jar. However, the capacitor structure I have in mind is very much larger and has to be operated at a quite high voltage. When that voltage is applied between the electrodes electric charge is displaced in the underlying vacuum medium located between those electrodes.

A commensurate amount of electric charge is thereby held in place on those electrodes, a negative polarity charge on one and a positive polarity charge on the other. Given my claim that this is accompanied by 'vacuum spin', aether rotation, which has imported an equal amount of energy owing to a quantum phaselock as between the charge of the vacuum medium, we have the energy gain we seek to exploit.

The problem, however, is that, with this simple capacitor configuration, the only control parameter available is the reduction of the voltage between the electrodes. This will shed energy within the circuit of the apparatus used, the outflow of electric charge at the voltage difference merely delivering energy equal to that originally supplied by our voltage source. The added energy imported from space is merely dispersed by the 'vacuum spin' slowing down but expanding beyond the bounds of the capacitor electrodes as it conserves its angular momentum. The energy imported from the quantum underworld of space has no way of enhancing the energy output of the capacitor circuit and so is left to dissipate itself and eventually be reabsorbed by that quantum underworld that pervades all space.

However, now consider a concentric electrode capacitor having a third cylindrical electrode intermediate the inner and outer electrodes. Here we have a control parameter other than the voltage between the outermost and innermost electrodes, because we can wonder about the voltage of the central electrode whilst retaining the other voltage difference at a constant high level. In fact, by keeping the latter voltage difference constant but varying the voltage of the intermediate electrode we can decrease the capacitor energy of one half of the overall capacitor as that of the other half decreases. The imported energy shed by one half of the overall capacitor can then contribute to the action that energises the other half and thereby induce oscillations from which energy can be extracted and deployed as a power source.

One needs two such capacitors having their central electrodes coupled through a load circuit in order to capture the 'free energy' inflow and get it to do useful work rather than being dissipated. An inductance in the coupling circuit can determine the oscillation frequency and, since the energy inflow increases with frequency, this should no doubt be well into the kilocycle region. The figure below is a simple schematic diagram of the electrical apparatus that I have in mind.



So my Message No. 3 is what I may describe as a 'thought experiment', one that I cannot verify myself, owing to my age and lack of facilities. I therefore can but record my thoughts and hope that others will prove me right and not wrong.

The capacitors depicted in the figure should have their electrodes spaced so that the capacitance C as between their central and outermost electrodes is the same as the capacitance C between their central and innermost electrodes. Suppose that the outermost electrodes are maintained at a voltage of 20,000V relative to the innermost electrodes. This means that the two central electrodes will be at an intermediate voltage which we expect to be 10,000V in the absence of oscillations. However, as with any ever-active electrical system, there will be minor voltage fluctuations affecting the central electrodes. So we may ask what happens if the voltage of the central electrode of capacitor A decreases owing to electric charge being shed by the inner capacitance C but gained by the outer capacitance C. Think about that for a moment. You will see that it implies reciprocal action in the opposite sense by capacitor B, as current flows from A to B via the central inductor coupling. Yet no net current flows from the 20,000V power source.

Now, of course, common sense backed by our scientific training assures us that this system can but keep its equilibrium without those minor voltage fluctuations building up in some way. Yet, if we heed Message No. 1 and keep in mind Message No. 2, there is a question we must ask. If current does flow through that central link between A and B, one half of A and one half of B both shed energy and so release the imported 'vacuum spin' energy, if such is present. This occurs as other halves of A and B have to gain energy and as angular momentum of the imported 'spin energy' spreads into the other sections of the capacitors. The question then is: "Does that imported energy escape, as it does for the two-electrode capacitor configuration, or might it be retained and so augment the action?"

I submit the answer can only be provided by actual experiment. If the energy does escape then there is nothing further to discuss. However, if some of that energy is captured then we can expect an escalation of oscillations in that inductive link and so can then say that a new source of energy has been discovered. Those oscillations will be a function of the capacitance C and the inductance of the load circuit. Given a high frequency and a high voltage a significant level of power per unit volume of capacitor structure will be produced. If power output at a level commensurate with the claims of Tesla, Moray, Meyer and Baumann results the world's energy future is then assured. A pollution-free energy resource powered by the quantum underworld of space will be at hand wherever we are on body Earth.