

SKY WIND-FARM(s)

In **1965**, I designed a **kite-like unit**, which would be positioned **10+** miles in the air, connected by a steel cable. The unit would carry an **F. M.** antenna, and associated equipment. (**F. M.**) broadcast signals, go in a straight line, "**line of sight**", instead of bending with the curvature of the earth, **like A. M. signals** do).

It would be extremely valuable in areas, where there is **NO** electricity, for transmitting **F. M.** television signals, carrying **cell- phone communications**, as well as other reasons!

Such a system(s), network, would also be valuable for **nations**, who do **NOT** have the technical know-how, or otherwise could **NOT** afford geo-stationary satellites. They are much cheaper too! Several separate units spaced at the appropriate intervals from one another, would be able to provide all types of data/pictures, to an area, **thousands of miles, in diameter.**

This system, of communications, would be especially useful, for areas of the globe, which had large expanses of desert land, mountainous terrain, where **NO** signalization, (**F. M.**) is available. It would also be extremely useful as a **telephonic-relay station**, or as a **weather station**, or many other uses, **NOT** specifically mentioned herein!

With modifications, the **Kite-like** arrangement, (partially supported by **HELIUM-filled** permanent enclosures), would supplement buoyancy. The units, may **ALSO** contain **Wind Turbines**, which would be able to generate tremendous amounts of electricity (because of the constancy and enormous wind speeds).

In view of the twin disasters, (**Global-Warming/Oil Crises**), facing the world today, **wind-capturing turbines**, in **GANGS** of **(10)**, or more, **generating electricity**, may be erected in the sky and connected. They may be called "**Wind-Farms**").

Because the unit(s), would be above **most clouds**, they could also **provide electricity**, in **another way**, by using **photo-voltaic solar cells**.

These **Solar cells**, would be able to supply power to **strobe lights**, attached on the Cable, at various heights, which would signal, that the Cable, is in that position.

You may also have small, wind-direction panels, affixed to each individual section, actuated and controlled by a computer program, which may be used to avoid entanglement of units, in the **“Farm”**.

Dependent on need, with enough **Solar Cells**, you may also accomplish other tasks/programs, which **require electricity**.

The main thrust of this document is directed toward **perpetual electricity-generation, WITHOUT** the use of **finite** energy resources, (**OIL, COAL, GAS, WOOD**, even **atomic fission**, [using **Uranium** in splitting the atom]! **NOTE:** A little-known, (except by myself), never publicized fact, is that in (150) years or less, the **Uranium** supply will be exhausted!

“FARMS” of **Wind-capturing turbines, powered** by the **infinite, renewable energy-source, (wind)**, floating in the sky, (much like a kite in a strong wind), would be able to supply electricity, in **large quantities, [Megawatts]**, (see **UPDATE**, below).

The electricity generated by the **“Farms”**, would allow the use of modern-day electronic equipment, at a very affordable cost. At certain times, it could be life-saving for the nations’ governments, throughout the whole world.

It would be especially valuable, in remote areas, where people still live in **“stone-age”** conditions, because **NO** electricity is available. Attached to the ground, they would truly be fixed in **Geo-stationary position!**

UPDATE: Pictured in **Discover Magazine, Oct. 2008, Page 21**, an article composed by **Fred Hapgood**, speculates **wind-turbines**, may generate tremendous amounts of electricity. The article also shows the picture of a single unit, which has **(4)** wind-mill blades, on that one unit.

One of the reasons, that large amounts of electricity may be generated, is because, the **wind-velocity** at those **higher altitudes**, is much **higher** than Sea-level winds. Another reason is, that the winds are **CONSTANT**, unlike

the winds at sea-level, which are prevalent, (or lacking)! Together, those (2) reasons translate, (aided and abetted by the Double-Quadruple Principle), into the production of electricity, at a much higher rate, than that, which could be produced at sea level. It can & does so, 24 hours, per day!

Wind Mills/turbines, may generate tremendous amounts of electricity because one of the Laws of Physics, teaches the magic of the “Double-Quadruple Principle” (D Q P). It teaches the precept, as explained next!

Double-Quadruple Principle (D Q P)

An easy example to envision: Set up a grid containing (20) units ACROSS and (20) unit rows DOWN. The grid NOW contains (400) units. Now, DOUBLE the size of the grid, so that we have (40) units ACROSS and (40) unit rows DOWN. The grid, NOW contains (1,600) units, [instead of 800 units], therefore seen as confirmation of the rule, of the D Q P.

The magic, of the Double-Quadruple-Principle (DQ P), also applies to WIND GENERATORS (wind-mills/turbines). A wind-generator with (3) ft, blade may generate 1 Kw of electricity, but a 12 ft blade, in the same wind-velocity, can generate (16) Kw of electricity, as taught by (DQP).

Another example: A 1” pipe can pass through 100 gallons of water per minute, (GPM). Doubling the diameter of the pipe, as you might suspect, does NOT pass 200 gallons of water per minute, but, in reality, actually passes 400 (GPM) of water, through the (2)” pipe!

Television signals, being transmitted over the air-waves, and the how & why D Q P works, such is explained next: More bandwidth/space is required for Television broadcasting over the air-waves, because this use, is ALSO governed by, the rule of the (DQP).

The American T.V. system, has always (and still does), [2008], projected (525) lines of horizontal resolution for its television pictures. HDTV is said to project 1,080 lines. (I do not know why, 1080 instead of 1050, like MY DQP, [which is double 525 lines])! Anyhow, they BOTH appear to be only, double the 525 line amount of resolution.

While apparently, only **doubling** the amount of lines, which can be seen, it **ALSO doubles**, the data on the lines, themselves, (which basically, is out of sight). Therefore, by **doubling** the data **ON** the **lines themselves**, times **doubling the amount of lines**, now results in the final, [**2 X 2=s (4)**] times the amount of air-wave space which is needed.

Because **HDTV**, is subject to the **(D Q P)**, such would require **(4)** times more air-space, than that allotted in the long-used **(525)** line system.

Owners of adjoining frequencies would have to be combined. But, they might **NOT** agree to join with other parties, (which would then become a necessity), [to avoid a plethora of law-suits]!

NOTE: Modern-day technology, **(2005)**, now allows signalization of pictures/data, over the air, through a process called **“streaming”**.

Streaming negates the problem for the need of much more bandwidth, (the amount of air-space needed, for the transmission of signals).

This new method of T.V. transmission, which gets around the **D Q P**, does so, by the picture being broken down into **(1)** line at a time. The data on the **(525 or 1050)** lines), are converted into digital signals, compressed, and in that form, are then transmitted.

The T.V set receives those compressed digital signals, de-compresses them, as one-at-a-time, individual lines, also. It does so, **so rapidly**, that the **decay** time, (the **period of time** the **phosphor particle** is excited), **[lighted]**, with regard to the much slower fading time, to **NO** color of the phosphor), lets **the signal persist**. In that manner, the eye effectively, sees a complete picture(s)!

That was a simple way of providing the answer/rationale, why **Streaming** apparently side-steps, the **(D Q P)**. While HDTV, really **DOES** produce a sharper image on the T.V. Screen, for most purposes, **(525)** lines, is **NOT** bad at all!

The estimated amount of electricity, consumed in the U.S., for **(1) year-[2007]**, is approximately **(1.4) Trillion Kw H**.

(4) wind-turbines per single unit, as suggested in the **Discover Magazine (Oct 2008)**, [Page 21], times a gang of (10) multiple units may comprise a **Wind-Farm**. This, times **thousands** of units, at multiple **D Q P** electricity-production rates, times (24) hours a day, then, the **(1.4) Trillion Kwh** goal, **MAY** be **attainable**, in an acceptable period of time ... **(10) years ?**

For a complete understanding of the **Double-Quadruple Principle**, See **D Q P**, on the www.Cifaldi.org website.

The end result would be far safer than **Atomic Fission**, (**splitting** atoms) and easier to do, than **Atomic Fusion**, (**JOINING ATOMS TOGETHER**). **NOTE: Often overlooked, is the FACT, (as disclosed herein, is, there is about 150 years left of Uranium, at (2008), today's rate of use! {Important enough to mention twice}!**

Global Wind-Farms, should be the aim of every government in the world, to be achieved, as a **collaborative effect**. This would ensure that the world does **NOT** run out of **Oil** or **Gas**, in the **foreseeable** future, but that will **NOT** be forever....Remember.... finite resource! Motor vehicles use, **consume/waste**, too much oil!

NOTE: According to the **U.S. Department of Energy**, a barrel of oil, consists of (42) gallons. Those (42) gallons, only produce (19.5) gallons of gasoline! The residue is used to manufacture other products!

Very-very importantly, **Wind-Farm**-produced electricity will make the world much safer. The reason is, (99 %) of the world's atomic energy plants, may now be **closed/eliminated**. However, most important of all, there is still a need for medical uses, (**nuclear isotopes**), and other irreplaceable uses, now currently being employed.

Since the **U.S.** has plenty of **natural gas**, **Battery/gas**, **Hybrid Vehicles**, should be developed, in the short term.. The **ultimate goal** should be that, of an **ALL-ELECTRIC** vehicle, whose batteries may be recharged, by electricity derived from inexhaustible, renewable, energy sources, (**Wind, Solar, etc.**).

Geo-thermal heat-recovery would be a welcome assist, to electricity, which now-provides heating. That **Geo-Thermal** heat-energy should be used for heating purposes, which currently are being supplied, one way or another, by oil!

With plenty of renewable-energy electricity available, oil trapped in large quantities of **SHALE (rock)**, such may also be recovered. This would be added to the world's, natural oil reserves. **Oil** should **NEVER** be used for **heating**, **NOR** fuel for motor vehicles, **NOR**, for generating **electricity!**

We **SHOULD** start to erect, **(200)** “**Wind-Farms**”, each day, for the next **(10)** years. Rough extrapolation estimates, indicate that, **this amount** of **Wind-Farms**, can supply **100%**, of the **U.S.’s** electricity needs, [as used in the year, **(2007)**], some **(1.4) Trillion Kwh**.

As a bonus, that would be accomplished with absolutely **NO** necessity for storage of wind-generated Electricity, in periods, (at sea-level), where there is **NO** wind! There will be **NO** air-pollution, **NOR** oil-use whatsoever, for the generation of electricity, from then on!

NOTE: It is evident now, as the world's population is growing, at more than **71,000,000** people per year, water is increasingly, **becoming scarce**. **NOW**, thanks to the past “**Greenhouse**” effect, we have **(2008)**, **MORE** water in the eco-sphere, than ever before, in recorded history!

Here is a bonus

NEVER-HEARD-BEFORE : The generation of electricity, by many clusters of **Wind-Farms**, **ERECTED AND DEPLOYED**, producing that amount of electricity, throughout the **U.S.**, **IN FACT**, **WILL ACTUALLY** enable us to **DO** the **FOLLOWING**:

SOLVE the Oil/**Energy** crisis,

EASE, **EFFECTS** OF **MAN-MADE GLOBAL WARMING**, **IF ANY!**

SOLVE the Water-shortage problem, **BEFORE** it starts, in earnest, (which has already been reported **(2006)**, in certain areas of the world).

The shortage of water prevents water being used to irrigate plants. This in turn generates **many** more, serious problems.

Because of a lack of water, food for live-stock would **NOT** be grown, eventually limiting the amount of animals, which are relied upon for human consumption. This, in turn, further **exacerbates/restricts** the amount of life-giving plants, in the human diet.

Last, but **NOT** least, it would render the earth as less-**capable** of growing crops... and the land becoming sterile. To remain productive, land must also need to be **“fed”**!

Land is **“fed”** by many different sources, such as: human and animal wastes, rotting away of flesh and plant life itself!

ELECTRICITY TO THE RESCUE! With copious amounts of electricity, we would also **BE ABLE TO CONVERT SALT WATER, INTO FRESH WATER**, (derived from the oceans of the world), and via pipeline, [use it/send it to where it is needed most!](#)

A **FINAL BONUS!** There are virtually **NO** lives-saving problems, which can **NOT** be **alleviated, negated, NOR solved**, by plentiful amounts of **electricity**, including the ability, to **synthesize** water!

Finally, the powers of extrapolation, when applied to the world's **increase** in population, yields the following **data minimums**, (which is constantly accelerating): From **1938 to 2008, (70)** years, Earth's population doubled to **(6)** Billion.

In about another **(70)** years would see it go to **(12)** Billion. Another **(70)** years, **2148**, [**unless there is a mitigating(s) factor**], would see it go to a staggering **(24)** Billion people

That is **quadruple** the amount of population on earth, than in **(2008)**. Obviously, at sometime, in the near future, some method must be imposed, for **Planned** Parenthood, because that amount of people will **NOT** be able to be adequately nurtured. The ultimate goal of parity for all nations, according to some prescribed formula, **MUST** also be agreed upon!

I am sure that people, who follow me, will be able to build on what is written herein. They will devise more & other **NEW** ideas, for providing methods of well-being, for a better life, for all **HUMANITY**. This outcome would be an **especially happy one**, for **ALL** the **unfortunates**, of the world's inhabitants!

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