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# **Leading Scientists and Thinkers on Energy – Thomas F. Valone**

### September 21st, 2007

In this eighth installment of our on-going series of interviews with some of the leading thinkers and scientists on the subject of energy, we interview Dr. Thomas Valone.

Facing and solving the multiple issues concerning energy is the single most pressing problem that we face as a species. There is a lot of media coverage about energy, alternative energy and global warming, but what has been missing is the knowledge and point of view of scientists, at least in the main stream media. If you have missed the first seven interviews, please scroll down the right side of the page and click on â€Scientists â€' Interviewsâ€M.

Dr. Thomas Valone is a physicist and licensed professional engineer with 30 years professional experience, is a patent examiner, research engineer, instrumentation designer and also an author, lecturer, and consultant on future energy developments. He is President and founder of Integrity Research Institute and formerly a community college teacher and a Research Director for Scott Aviation-ATO, Inc. He helped design the HullCom® for naval intraship communication, a 60 Hz gaussmeter without harmonic distortion, two bioelectric therapy devices, and a dental mercury vapor ionizer-precipitator. He is editor of Future Energy, Energetic Processes Vol. I & II, Turning the Corner: Energy Solutions for the 21st Century and a few conference proceedings, as well as author of Zero Point Energy: The Fuel of the Future, Practical Conversion of Zero-Point Energy, Homopolar Handbook, Electrogravitics Vol. 1 & II, Bioelectromagnetic Healing, Bush-Cheney Energy Study, Clinton Administration Energy Study and about 100 published reports and articles. He has also served as an expert witness, an expert declaration writer for court cases and appeared on CNN, A&E, and the Discovery Channels, besides a few commercial energy videos. Currently, Dr. Valone is a member of the Institute of Electrical and Electronic Engineers, the Bioelectromagnetics Society, the National Space Society and the Union of Concerned Scientists. He is also a Fellow of the World Innovation Foundation. His works have been published in German, French, Korean and English.

I met Tom at the Foundation for the Futures' conference on the future of energy and was taken with his positive outlook and the fact that he has been a patent examiner.

Evolutionshift.com: As a scientist and patent examiner you are in superlative company. Any other similarities with Albert Einstein? Seriously, how does your work with the government patent office compliment your scientific work and research?

VALONE: Any comments that I make in this regard do not reflect the views of the US Patent and Trademark Office and are only my personal viewpoints as a private citizen. Of course, when a recent biography of Einstein was aired on the PBS channel, I was happy to watch, being a physicist and patent examiner. However, I learned from the narrator that â celinstein was employed at a dead-end job at the Swiss Patent Officeâ€before he was freed by publishing three seminal journal articles and receiving other job offers. The work at the US PTO often feels like a dead-end, repetitive job since it is piecemeal, production work with no job security. However, I have tried to follow in Einstein's footsteps, who was born in the same month as I was, by taking General Relativity as a physics graduate student years ago, using it for analyzing non-inertial reference frames in my physics Masterâ€Ms thesis on the homopolar generator, and recently by buying the book â€eHow to Think Like an Einstein†and also writing a PhD thesis on zero point energy performance of useful work from the quantum vacuum. This last work, which I hid in my drawer at the Patent Office just like Einstein did, has evolved into the popular book, Zero Point Energy: The Fuel of the Future, which presents practical suggestions for converting ZPE into electricity. Thatâ€Ms where the ability to search the scientific and patent literature comes in handyâ€finding science and engineering inventions in a particular field and thus doing â€due diligence.â€M

**Evolutionshift.com:** You presentation at the Foundation for the Futuresâ€<sup>M</sup> future of energy conference was one of the more urgent presentations about the need for alternative energy sources. How urgent is the global energy situation?

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VALONE: To answer the urgency question, we have to realize just one of the IPCC findings. That is, with every single degree of global temperature increase, there is a whole category on the average of increase in hurricane strength. We have already experienced this in our lifetime. A category 5 hurricane now will suck enough energy from the ocean to become a category 6, etc. The melting of the Antarctic and most importantly, the Greenland ice sheets is not only inevitable, according to a climate chart published by MITâ⊕™s Technology Review in July, 2006, but roughly equals the 80 meters of extraordinary sea level rise that is predicted by that calibrated chart. As fossil fuels continue to push carbon dioxide levels past the 400, 500 and the expected 700 ppm levels, we are entering new, uncharted territory on an earth that has not exceeded such levels in 400,000 years. We really need to introduce a completely clean and inexpensive source of energy for electricity, such as a zero point energy diode generator, in the next ten years to have any hope of revolutionizing the climate and energy usage.

**Evolutionshift.com:** Do you believe in Peak Oil? When will we be passing through it and when might the planet run out of oil?

VALONE: Peak Oil is not a matter of belief. It is a fact that Hubbert established to everyone's satisfaction by predicting the United States' peak of oil production twenty five years before it happened. His prediction for the world oil production has all the experts arguing about the give-or-take of only a couple of decades! That's how close the tolerance is for Hubbert's Peak. In other words, we are actually experiencing the maximum oil production that the world can sustain at the present time: about 72 million barrels of oil per day. This black, dead fossil liquid consumption by living human beings is on the same order of magnitude as the water flow over the American Falls in New York State, where I grew up. The only direction for this rate is downward. The U.A.E. presently is preparing for their Peak Oil by investing heavily in tourism resorts near Dubai and by building islands in the ocean with mansions on them. Technically, to answer the second question, the planet will never run out of oil. However, as Nikola Tesla pointed out, we won't be able to continue burning it for fuel for the sake of our future generations.

**Evolutionshift.com:** What are the best sources of alternative energy for the next 20 years?

VALONE: The best sources of alternative energy for the next 20 years depends upon what application is in mind. The top of the list has to include photovoltaic solar electricity. I recently wrote an article in the Integrity Research Institute's Annual Report about a â€eRevolution in Solar Energyâ€which summarizes the latest discoveries. The ability to generate more than one electron from a photon of light, has now been demonstrated by Los Alamos labs. Alan Heeger, who won the 2000 Nobel Prize for his co-discovery of electrically conducting polymers, and his colleagues at the University of California, Santa Barbara (UCSB), have recently created process for multiple layers of plastic PV material with flexibility and high efficiency. The company Konarka based in Lowell, MA is the one to watch. Their polymer PV cells can even generate electricity with background room lighting. Another source of alternative energy that is on my â€ebestâ€list is the permanent magnet motor, utilizing the â€magnetic gradient.â€M IRI has a spiral stator design that improves upon the old Kure Tekko Japanese patents of the 1970's with several innovative magnetic pulsing techniques. We can foresee the day when a magnetic car will compete favorably with the electric car, since it will not need recharging. Geothermal energy is another â€bestâ€M and ubiquitous source of energy that has been highly recommended for municipalities and centralized power. Another favorite of mine is zero point energy, since I have performed a feasibility study and found that â€zero bias' diodes are manifesting the rectified electricity which we all desire for a generator. The quantum vacuum continually generates random non-thermal noise (called â€zero point energy') in solid state devices, causing tunneling and electron flow. It is time to start using this free energy source in a big way. The end product will have a construction, much like the tiny LEDs in our flat screen televisions, with millions of diodes all transducing zero point energy into electron current. For the application of medium to large industrial plants, I recommend the conversion of waste heat into electricity. The company, Primary Energy, headed by Tom Casten, has a wonderful offer they cannot refuse: allow him to build the electrical generation plant on site and they save about half on all future electricity bills. Other promising alternative energy sources include off-shore wind generators, tidal generators, and ocean current electrical generators. For the transportation sector, I advocate compressed air cars and plug-in electric cars, which are making their debut in every other country but the US. The US, as you might remember, is the country and GM is the company â€eWho Killed the Electric Car.â€This debacle of purposely crushing every leased EV-1 electric car by GM is now recorded on DVD (by SONY Classic Pictures) for historical posterity. As Europe, Iceland, and other countries become energy independent and non-polluting, our EPA has yet to declare CO2 an environmental pollutant.

**Evolutionshift.com:** How soon do you these sources significantly impacting the world's use of fossil fuels? What can be done to accelerate the timelines?

**VALONE:** As mentioned above, the US EPA is at fault, just as the California Air Quality Board was in 2002, for not standing up to the most problematic greenhouse gas and limiting its emission rate. Once legislation has been passed, the

industrial sector has proven its ability to adapt, which will accelerate the timelines. As was the case in the 1970â€Ms after the first Mid-East Oil Embargo, the US has the will power and the resourcefulness to put into practice the conservation mandates that are recommended by government. For example, conservation has not been advocated recently but back then it was and the US responded by almost a 50% savings in energy consumption. Today the Alliance to Save Energy here in DC is famous for â€æEnergy Efficiencyâ€forums, awards and programs. As Amory Lovins points out, it is easier and cheaper to save energy than to generate it. Therefore, to answer the question, in the short term, we can significantly impact this countryâ€Ms use of fossil fuels, while the 5 to 10 year lag of development of zero-fuel devices takes place.

**Evolutionshift.com:** What might be the sources of alternative energy longer term? What do you see that is promising?

**VALONE:** As mentioned above, for the longer term, zero point energy devices will be developed and are foreseen by many experts to permanently solve the energy problem, also making practical space travel possible. Cold fusion devices will also become available, along with other exotic sources of energy, such as the pB-11 plasma focus fusion under development at the University of Illinois. Still, the biggest breakthrough for the future has to be the Konarka multi-layer polymer solar cell which is predicted to be inserted into almost everything, since it generates electricity from ambient room light.

**Evolutionshift.com:** Why is cold fusion so promising? Hasn't the scientific community at large ridiculed it? Please explain to my readers why significant resources should be directed toward developing this type of energy?

VALONE: The International Conference on Cold Fusion is scheduled for Washington DC in 2008 for the first time and I look forward to participating in it. My nonprofit www.IntegrityResearchInstitute.org has sponsored one cold fusion seminar (LENREW-2000) and has consistently featured one â€etokenâ€cold fusion speaker at both Conferences on Future Energy (COFE and COFE2). Suffice it to say, nature creates transmutation of elements at the cellular level, well documented in peer-reviewed journal articles, and reported by Dr. Ed Storms at COFE in 1999 and elsewhere. Cold fusion also achieves similar transmutation of elements through tabletop electrolysis, which is not so strange once we realize that nature does this consistently. It is so promising because the fact that transmutation means a nuclear reaction has to take place. Repeatable experiments of cheap, efficient heat production have been demonstrated in over a dozen government labs, which also indicates its promise. To answer the second question, we only have to thank the American Physical Society for creating enough obfuscation in 1989, mainly by Dr. Robert Park who for years fulfilled the role of public affairs director. He took it on himself to raise the skeptics flag and has waved it ever since. My removal from the Patent Office in 1999 was credited to him by the arbitrator who reinstated me. He acknowledged the bad publicity he created for my first COFE and the phone calls he made to the Commerce Department to discredit me, all for having one cold fusion speaker at COFE, which might have taken place at the State, Energy or Commerce Department. The ridicule mainly comes from a lack of understanding and, as my arbitrator pointed out, the fear that if successful, cold fusion will draw from the same limited pot of funding that hot fusion now enjoys. I know that once we become aware of the billion-dollar fusion boondoggle called â€emagnetic confinementâ€or the â€etokamak,â€which the DOE admits will not become commercially viable for electricity generation even by 2050 (always 30 years or more in the future), the urge to include plasma focus fusion, cold fusion, electrostatic confinement fusion, and even bubble fusion becomes much more defensible.

Evolutionshift.com: Are you optimistic that humanity can replace fossil fuels in time to avoid an environmental cataclysm?

VALONE: Every time there is an administration change in DC, I generate great optimism for energy policy change. I have given several slide shows for Congressional staffers and even advised Senator Kerry's office when he was running for President. The question of avoiding the inevitable tidal wave from a number of likely causes (including the Canary Island landslide), the inevitable eruption of the Yellowstone caldera, or the unavoidable increased heat waves and stronger hurricanes due to global warming, as well as the inevitable sinking of most of Louisiana and Florida as the sea rises in the next century, all depend upon the next 20 years of preparation. If we as private scientists and entrepreneurs can break through the development and production barriers, while China manufacturing is still cheap and their currency has not been devalued, then the world will hopefully receive the cheap, inexpensive, one cubic foot box which I have repeatedly envisioned as the container powering the local home or business. Yes, I am optimistic, mainly from my belief in a benevolent Higher Power. However, some environmental changes are necessary, just like Katrina, to replace the impotent government agency leaders (e.g. FEMA) who often stop progress and instead, maintain inefficiency.

**Evolutionshift.com:** Any final thoughts or comments?

**VALONE:** Everyone can do his or her part to conserve energy and reduce their personal carbon dioxide emissions, including recycling their waste, installing passive solar in their homes and buying a hybrid, if they can afford to do so. Writing their Senator and Congressman to include green legislation like the 10% renewable portfolio for each state is vital. Right now, Europe has a 20% renewable portfolio for their energy production and the US lags behind, even though we are the biggest

consumer (20 million barrels per day) of oil and the biggest polluter in the world. It is up to the US to change its ways if we believe the world can change for the better. Supporting and buying stock in Planktos, Inc., which has a wonderful planktonfeeding program for the ocean to sequester millions of tons of CO2, is also very important for the short term. The world's temperature and sea level are being driven (thermally forced) by the present heat-trapping 400 ppm of CO2 in the atmosphere. Planetary wide modifications by the human race united for a common cause will solve this problem for the better.

**Evolutionshift.com:** Thank you Tom.



Posted by david Filed in Energy Conference, General, Petroleum, Planktos, Scientists - Interviews, Space Solar Energy, climate change, cold fusion, compressed air car, energy, global warming, peak oil 10 Comments »

# 10 Responses to "Leading Scientists and Thinkers on Energy – Thomas F. Valone"

1. M. Simon Says:

September 21st, 2007 at 1:41 pm

Do you realize just how small the zero point energy is?

You are talking nanowatts per junction. If you could take the energy out of a diode the diode would have to cool. Which means your energy supply is dependent on temperature and how fast you could heat your diodes.

Here is a better bet:

**Bussard Fusion Reactor** Easy Low Cost No Radiation Fusion

It has been funded:

### **Bussard Reactor Funded**

I have inside info that is very reliable and multiply confirmed that validates the above story. I am not at liberty to say more. Expect a public announcement from the Navy in the coming weeks.

The above reactor can burn Deuterium which is very abundant and produces lots of neutrons or it can burn a mixture of Hydrogen and Boron 11 which does not.

The implication of it is that we will know in 6 to 9 months if the small reactors of that design are feasible.

If they are we could have fusion plants generating electricity in 10 years or less depending on how much we want to spend to compress the time frame. A much better investment that CO2 sequestration.

BTW Bussard is not the only thing going on in IEC. There are a few government programs at Los Alamos National Laboratory, MIT, the University of Wisconsin and at the University of Illinois at Champaign-Urbana among others. **Bussard Fusion Reactor** 

Easy Low Cost No Radiation Fusion

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**Bussard Reactor Funded** 

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# 2. Mark Goldes Says:

September 21st, 2007 at 6:12 pm

Jim Hansen and other leading scientists suggest we have only a ten year window in which to substantially wind down the use of fossil fuels.

Tom Friedman, writing in the NY Times (9-19-07), demonstrated the need for "a transformational technological breakthrough in the energy space…"

Our firm, Magnetic Power Inc., is developing such a revolutionary energy system. We call it GENIE (Generating Electricity by Nondestructive Interference of Energy).

GENIE converts a previously uncommercialized, fuel-free, source of energy.

GENIE is expected to power homes, cars, trucks, and every other form of vehicle.

GENIE is likely to turn future cars into power plants, substantial sources of electricity that can be sold to a local utility when the automobile is parked.

GENIE may earn sufficient income to make it possible for many cars to pay for themselves.

GENIE offers a sorely needed ray of hope. It will allow us to rapidly reduce the need for fossil fuels.

See our website: magneticpowerinc.com for more information.

### 3. <u>Ben</u> Says:

September 22nd, 2007 at 8:07 pm

I have spent the last ten years trying to get someone to take seriously a means of saving energy and also improving the health of people who have asthma and other respiratory diseases.

It was about 14 years ago that I first decided to tackle the problems created by dust emission from vacuum cleaners and after building prototypes and getting them to work I discovered that I had also produced a cleaner that used far less electricity to do the same work as conventional vacuum cleaner.

After many years of trying I finally got the Government interred enough to have tests made for the DTI Market Transformation Program.

The results of the tests show that the new cleaner can work better on 250 whr than a 1,400 whr Hoover, a saving of 1,150 whr. If most cleaner in the UK were replaced then 1,500,000,000,000 whr would be saved each year worth  $\hat{A}$ £1,500,000,000,000 at the market price of 10p, per unit.

More important is that the electricity saved is equal to around

650,000. Tons of carbon emissions each year.

But that is as far as they go and I am still trying to get someone to take on the manufacture.

I have patents and working prototypes but that is as far as I can go on my own. Maybe someone reading this will show me the way forward.

I have a Web site with information and also a short video clip of

this machine the URL is http://www.edginton.info/arc

#### 4. Nick Palmer Says:

September 23rd, 2007 at 8:40 am

In this otherwise interesting article Mr Valone says (regarding carbon sequestration) "Supporting and buying stock in Planktos, Inc., which has a wonderful plankton-feeding program for the ocean to sequester millions of tons of CO2, is also very important for the short term."

As an environmentalist who has had a little bit to do with the furore surrounding Planktos' plans, I would draw the readers attention to this source of information http://newenergytimes.com/news/2007/NET24.htm#thewiz which paints a probably more balanced view about this scheme to monkey about with the oceans...

Nick

#### 5. john clark Says:

September 23rd, 2007 at 10:42 pm

It is my own personal belief that sonofusion or buble fusion as it is called is a really good bet for the future. It's really just a matter of the funding for the development. I my self am trying to develop an alternative energy device based on some not to well known insites into the basic nature of our universe. I will only say that the knowledge of the ancients has not been lost it has only been overlooked because it has always been stairing us in the face. One clue to the mistery is that order out of caos is power.

#### 6. Von Ives Says:

September 28th, 2007 at 11:54 pm

I am not qualified to comment on John Clark's opinion about 'bubble-fusion'. However, I completely concur with the balance of his statement.

Tom Bearden in his 1987 introduction statement of his

book, "Excaliber Briefing" laid down the abstract basics. This is also been stated in more detail, but still very abstract, by an audio electrical engineer, Lee Carroll, obtained through an entity called "Kryon".

I have personally, tho independently, discovered the physical embodiment of their writings before I ever heard of either one. All that is required is enough

money, time, and effort to make it practical.

This 'secret' has been right under everyone's noses all along undiscovered, but available for those that would but look for it.

"It is astonishing that this great secret has been preserved through all previous time, so that it would

be my destiny and rare privilege to discover it, because I dared to imagine it." V.I.

"There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old system and merely lukewarm defenders in those who would gain by a new one." Michiavelli, 1513.

#### 7. WLADIMIR GUGLINSKI Says:

November 24th, 2007 at 11:46 pm

A discussion on the theoreticall viability in cold fusion can be seen in the links:

#### FOUNDATIONS FOR COLD FUSION:

http://peswiki.com/index.php/Foundations\_for\_cold\_fusion

#### QUANTUM RING THEORY at TEMPLE UNIVERSITY:

http://peswiki.com/index.php/Quantum\_Ring\_Theory\_at\_Temple\_University

#### COLD FUSION THEORIES:

http://peswiki.com/index.php/Cold\_fusion\_theories

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#### SUCCESSES OF THE BOHR ATOM

http://peswiki.com/index.php/Successes\_of\_the\_Bohr\_atom

### DON BORGHI'S EXPERIMENT:

http://peswiki.com/index.php/Don Borghi%27s experiment

#### COLD FUSION CONTROVERSY DISCUSSED IN A CHEMISTRY FORUM:

http://www.chemicalforums.com/index.php?topic=17140.0

#### 8. WLADIMIR GUGLINSKI Says:

December 9th, 2007 at 5:42 pm

Other interesting discussion can be seen in the link:

http://www.chemicalforums.com/index.php?topic=20895.0

where the chemists Mitch, Borek, and Enahs try to refute the existence of two different structures of the isotope 8O18, predicted in the Quantum Ring Theory.

Their arguments are debunked by me along the discussion.

#### 9. Rick La Violette Says:

May 7th, 2008 at 8:23 pm

Energy sources can come from the most unusual places.

Plutonium, encased within a carbon filament nanotube or buckministerfullerene would be an interesting test of a miniature power sources. C-60 or C-70 Fullerenes encasing a plutonium would have an incredible valence level. If nothing else, One molecule could be used as a light source. Put a few hundred in AAA battery hmmm

#### 10. Rick La Violette Says:

May 7th, 2008 at 8:42 pm

"the billion-dollar fusion boondoggle called â€æmagnetic confinementâ€or the â€ætokamak"-Valone If this a "boondoggle" of epic proportions, what is the Bush Administration push to get Haliburton to mine He-3 on the moon. It is the supposed "ideal" fuel source for such types of power generation, since it does not release neutrons during the fusion process. The moon could be the source of 100-150 million liquid metric tons of the stuff. The source has the Chinese, Russians, Japanese and even the European countries eyeballing territories on the moon. One Article:

http://news.bbc.co.uk/1/hi/sci/tech/226053.stm

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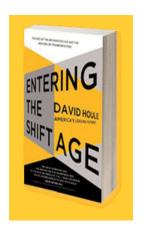
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**David Houle** 

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A Future Look at Today

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