

Thomas F. Valone Interview, by David Houle, from *Evolution Shift*, from 2007
<http://davidhoule.com/evolutionshift-blog>

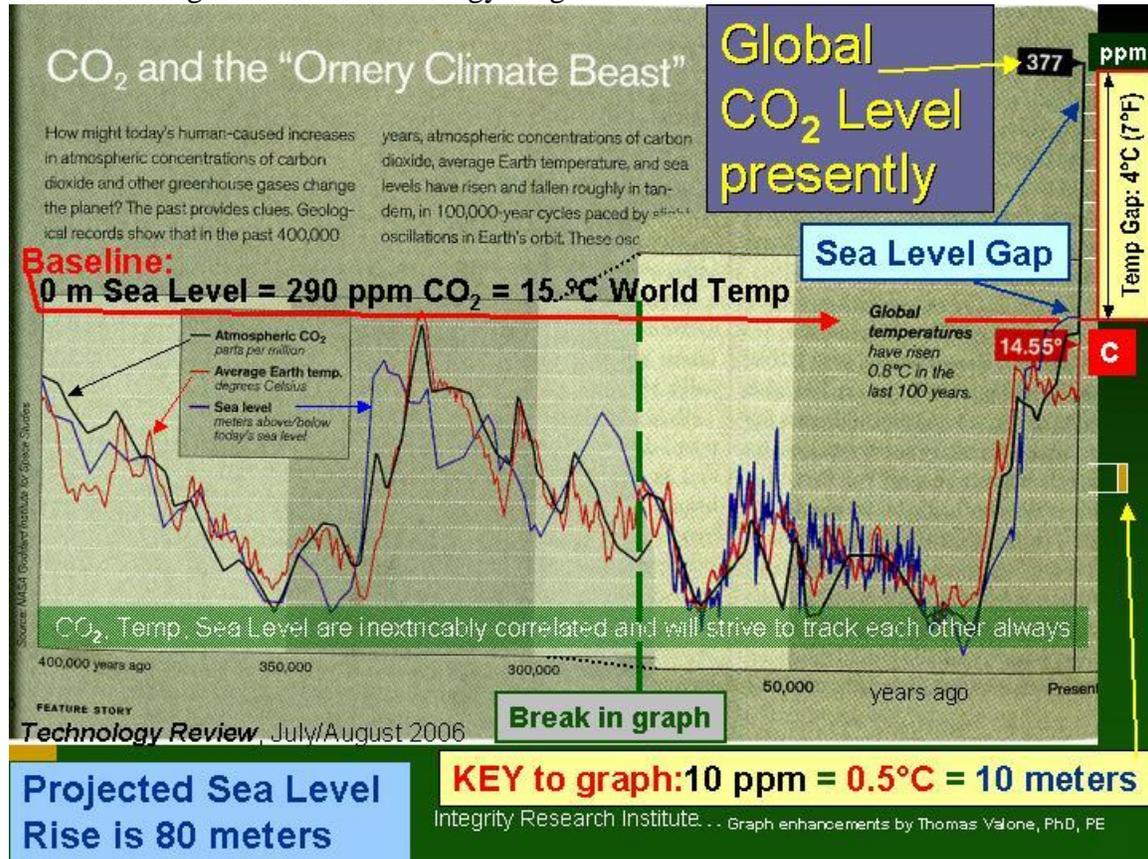
1. Evolutionshift: As a scientist and patent examiner you are in superlative company. Any other similarities with Albert Einstein? Seriously, how does your work with the government patent office compliment your scientific work and research?
[Tom, I gather you might be in conflict with the patent office, if so we can eliminate this question and start with the one below. If, on the other hand you want to discuss this reinstatement, of course you can do so. I just couldn't resist]

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 "Einstein was employed at a dead-end job at the Swiss Patent Office" 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 Master's thesis on the homopolar generator, and recently by buying the book "How 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. That's where the ability to search the scientific and patent literature comes in handy... finding science and engineering inventions in a particular field and thus doing 'due diligence.'

2. Evolutionshift: Your presentation at the Foundation for the Futures' 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?

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 MIT'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. As we approach 1000 ppm, schoolroom studies show that most will experience cognitive impairment from the high CO2 level. 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.



3. Evolutionshift: 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. Saudi Arabia presently is preparing for their Peak Oil by investing heavily in tourism resorts 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.

4. Evolutionshift: 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 "Revolution in Solar Energy" 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 <<http://www.ipos.ucsb.edu/ajh.html>>, who won the 2000 Nobel Prize for his codiscovery of electrically conducting polymers, and his colleagues at the University of California, Santa Barbara <<http://www.ipos.ucsb.edu/>> (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 "best" list is the permanent magnet motor, utilizing the 'magnetic gradient.' 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 'best' 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 'zero bias' diodes are manifesting the rectified electricity which we all desire for a generator. The quantum vacuum continually generates random nonthermal noise (called '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 "Who Killed the Electric Car." 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.

5. Evolutionshift: [Depending on your answer to #4] 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 1970's 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 “Energy Efficiency” 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 country’s use of fossil fuels, while the 5 to 10 year lag of development of zero-fuel devices takes place.

6. Evolutionshift: 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.

7. Evolutionshift: [Assuming how you answered #6 and based upon knowledge of your thinking] 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 “token” 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 “magnetic confinement” or the “tokamak,” 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.

8. 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.

9. Any final thoughts or comments?

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 plankton-feeding 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.

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Integrity Research Institute
5020 Sunnyside Ave., Suite 209
Beltsville MD 20705