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Open letter to the leaders of the United States of America

The United States should develop and implement a Declaration of Energy Independence We must never be held hostage to oil-producing countries.

We are dependent on foreign oil, the price of which hovers around \$50 a barrel and could even hit \$100 in the coming years. American consumers and businesses are feeling it "at the pump." Gasoline is our transportation life-blood, and we feel it is our birthright to have as much cheap fuel as we need to remain competitive in the global marketplace - and to sustain and even improve our way of life.

Our dependence on foreign oil, increasing demand from U.S. economic growth and from a burgeoning Chinese economy - along with diminishing domestic production - is causing our significant Middle-East energy subservience to become critical! Only if we focus on the *cause* of this dependence, not the *effect*; only if we focus our efforts on developing competing energy sources - will we have any hope of overcoming the future challenges of our growing foreign oil dependence.

The United States needs to become energy *self-sufficient* in the next 20 years, or lose our global economic dominance. Therefore, I propose that the federal government (or interested Sates) develop an "Energy Independence Fund," (EIF) to leverage our research universities and commercial sectors' ability to innovate and commercialize lasting solutions - to enable the U.S. to become a net-exporter of renewable energy. *Although there is no guarantee that an EIF will succeed, by avoiding the difficult decisions and efforts, we are guaranteeing failure.*

We have been down this road before.

Nearly 50% of Americans¹ do not remember the "oil shock" of 1973, where oil prices nearly quadrupled². Inflation soared, business activity decreased dramatically, giving us yet a new economic term: "Stagflation." America, Western Europe, Japan, and all other industrialized nations were at the mercy of the Organization of Petroleum Exporting Countries. OPEC's decision to halt production was effectively an embargo, and as such could have been considered an act of war. In 1973, world consumption was 57 million barrels of oil per day³. With only approximately 6 percent of the world's population, the U.S. was consuming 33 percent of the world's energy⁴. In 2003, world oil consumption was just over 78 million barrels daily. Over the last 30 years, the United States' production of oil has *decreased*, while dependence on foreign oil has *increased* to 67%⁵. Simple supply & demand economics predicted what happened - and what will occur in the near future. *If no significant / strategic change in direction is taken now - to start down the path of energy independence - we can expect to pay more than \$10 a gallon in just a few short years!*

Currently, our dependence on foreign oil is evident not only in the *price* of oil, but also in the *volatility* of its price - changing up to 10 to 15 cents per gallon *a day*!

Unless we make a dramatic change in national policy, the United States is headed towards a continuing decline in its stature as a world economic power. Unless we make a dramatic change in our *awareness* of this problem and our assumptions about how to solve it, we will continue dying in battle, continue exporting jobs, continue democracy's gradual decline: because we are addicted to cheap oil.

The 1973 oil shock was not enough! September 11th was not enough! What else must happen before the United States' leadership makes a decision to solve our energy problem, once and for all? We need vision! We need a future-focused energy independence policy.

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We need vision: What if the United States was a "net-exporter" of energy?

Competition lowers prices, therefore - the surest way to reduce the price of oil is to develop competing energy sources. The United States has the talent and resources to become a net-exporter (instead of a net-importer) of energy. In fact, we have the ability to become the world leader in clean, renewable energy. If the U.S. decides to become a net-exporter of the next millennia's energy, and committed sufficient resources to accomplish this - with a single bold action we could, in 15 to 20 years - solve or significantly address several pressing problems:

- Jobs: Our job-creation engine would stop the flow of jobs to other countries.
- Exports: By exporting energy, our current account deficit would be turned into a surplus.
- *Economic development & leadership*: The U.S.' economic prosperity would grow substantially, by *exporting* energy as third-world countries develop and need more energy.
- Security & safety: Independence from foreign oil would clearly reduce tensions with oil-producing nations, and the Middle-East in particular. For the long-term.
- *Peace*: The reduction in security threats would support our prospects for peace. Especially, oil supply-induced wars.
- *Health costs & Pollution*: Focusing on clean and renewable energy would reduce pollution, reduce illness due to pollution, and could significantly reduce healthcare costs for generations to come.
- Innovation / Technology: Developing new technologies focused on clean renewable energy would have unimaginable (positive) consequences. The previous "big goal," and subsequent action to put a man on the moon generated a technology revolution that included the hand-held calculator, cell phone, computers, etc. A focus on energy self-sufficiency would be much larger in scope the ramifications in technology would have an immense impact on the United States' ability to compete globally well into the 21st century.
- Self-sufficiency & Democracy: The United States would never again be held hostage by oil-producing nations. Freedom would spread faster and far easier.

Steps to freedom from foreign oil and energy self-sufficiency

[1] Recognize there is a (growing) problem: Currently, Americans take cheap oil for granted. We like to either blame the current administration, or oil companies, or terrorists, or anyone other than ourselves. The fact of the matter is - by not dealing with this issue starting in 1973, we have caused and continue to exacerbate our foreign-oil dependence. This is counter-intuitive: Because we want cheap oil, we are not willing to pay to develop alternatives that can ultimately compete with oil... and bring down the price - and price volatility.

[2] Take responsibility and make a decision to make a significant change: In the early 1970s, Denmark made a decision to change and reduced their 98% dependence on imported energy - to become a net-exporter of energy today! Even "no" decision is still a decision! If we choose not to do anything, we will forever be at the tail end of someone else's decisions. We will be in perpetual reactive mode. And things will get worse!

[3] Through bold leadership, create and fund national policy that will enable our energy self-sufficiency: This is at the crux of the solution: No administration, Democrat nor Republican - since our first foreign-oil-dependency-clue in 1973 - has taken sufficient action. As a nation, we must overcome our political bickering. We must work together. We must fund a goal to become a net-exporter of clean, renewable energy by the year 2025. We must develop an Energy Independence Fund that leverages existing educational research institutions, corporate research capabilities, and venture-funding mechanisms to innovate, develop and commercialize clean, renewable, and exportable energy. Specifics of how to accomplish this can be found in the executive summary on the web⁶.

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[4] Tackle the "25% issues" of energy efficiency, energy storage, and distributed energy solutions: In order to weather energy shortages - between now and when we are 100% energy-independent - we *must* encourage reduction in energy use through incentives (example: hybrid vehicles, awareness of low-power solutions in new building construction, etc.). We must also deal with energy storage problems: Wind energy's major expense is asynchronous energy: available when the wind blows (but perhaps not needed), or unavailable when the wind doesn't blow (but when needed). We must also support "DG:" distributed energy (example: micro-turbines): reducing power transmission losses (\$25 billion a year or more!), while supporting our national security through distributing our infrastructure (much like the Internet was developed by DARPA - to keep the country running after a nuclear attack). Although we cannot "save our way to prosperity"," we can address current wastes in energy and reduce demand... to help reduce prices.

[5] Develop an "H-Prize:" Much like space-flight/aviation's the "X-Prize," where the first non-government funded human space flight was awarded \$10 million. The stakes are much higher, as should the amount of the prize. A similar "H-Prize" could be developed for independent development of a Hydrogen-based solution to transportation fuel and the necessary infrastructure. This would incentivize creativity and innovation in the private sector. The amount would need to be much larger (\$100 million?) and the requirements (selection criteria / specifications / licensing, etc.) would need serious development. (This idea was provided to me by Jonathan Logan, of Portland Oregon.)

[6] Build awareness: Through recent research, it was discovered that many people feel that Hydrogen costs far less than gasoline, and that the oil companies are "holding back" introducing this technology - prolonging our dependence on oil. This is simply not true. Additionally, there is a misunderstanding of the simple nature of supply and demand: With China's growth spurt and other developing countries rapidly growing, the demand for oil is greater than ever, and proven reserves are dwindling. At this rate, ten dollars per gallon will be a reality in less than ten years! Americans need to better understand the serious issues facing our country, so they can make - and support - better-informed decisions.

[7] Support non-partisan solutions: We are a polarized nation! Just because someone says "profit" does not mean they are evil. In fact, the profit motive should be embraced and supported in our market-driven, capitalist society. (Example: Installing motion-sensor light switches saves energy and money!) Just because someone says "sustainability" doesn't mean they are a "tree-hugging environmentalist." American ideology was built on "win-win" solutions - for the greater good: Doing good while doing well. Currently, Democrats are focused on (and believe they "own" the high road of) "doing good." Republicans are chided due to their focus on "doing well." Both can co-exist. Both must co-exist. Human nature cannot be squelched, so we should embrace our differences. Longlasting solutions to our complex energy problem can only be developed if we work together.

Government, by itself cannot solve our problems, yet 92% of Americans feel the government should develop new technologies⁸. Only a government-*supported* policy that enables *companies* to do what they do best: innovate, will enable the United States to become a net-exporter of renewable energy. And if we don't do it, other countries - with growing appetites for energy (like China) - will!

Time for action is now!

For the past thirty years, Americans and the politicians we have elected have failed to enable the US to become energy independent. The one candidate who proposed addressing this problem head-on with a 50 cent a gallon tax was summarily defeated in the 1980 election. Why? Americans vote with their pocket books; and we want cheap oil!

Administration after administration has *not* solved this growing problem. The time it will take to create the technologies, develop solutions and infrastructure and deliver it in the volume required to have a low-enough price - is measured in decades. *Longer* if we make a personal "pocket-veto decision" to avoid this problem, *sooner* if we make a bold decision to start now!

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Americans have the initiative, know-how, inspiration, dedication and drive to solve this immense problem - more so than any other country in the world. All we have to do is *take action* - instead of *taking sides*, and then "just do it!"

One U.S. president had a vision, challenged the American people to accomplish that vision. We rose to the challenge and benefited from it ever since. On May 25, 1961, President John Kennedy made a bold speech, with a bold mission: the moon landing. His words are as powerful and applicable today as they were nearly forty-five years later:

"I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decisions or marshaled the national resources required for such leadership. We have never specified long-range goals on an urgent time schedule, or managed our resources and our time so as to insure their fulfillment.

For while we cannot guarantee that we shall one day be first, we can guarantee that any failure to make this effort will make us last. We take an additional risk by making it in full view of the world ... this very risk enhances our stature when we are successful. But this is not merely a race. I therefore ask the Congress, above and beyond the increases I have earlier requested... to provide the funds, which are needed to meet the following national goals:

I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth. No single... project in this period will be more impressive to mankind, or more important for the long-range... and none will be so difficult or expensive to accomplish."

Sleep at the wheel, or *act now* - to empower the United States to take a *leadership* role for generations to come.

If you are happy with the status quo, please go back to sleep. You will be awakened with a large crash, which will represent an economic shock that could well be larger than what occurred in 1929. Our current energy policy⁹ relies heavily on our reliance on oil and does little to move us to the next generation of cheap fuel. However, if you want to help solve this problem, then:

- [1] Read the detailed report⁷,
- [2] Contact your U.S. Representatives & Governor and ask them to create an Energy Independence Fund⁶ as outlined in the "EIF Executive Summary" and research report, and
- [3] Elect only those local, state, federal individuals who will *work together*¹⁰ to solve our energy problem.
- [4] Seriously consider a hybrid for your next vehicle purchase.

Most of all: Do something about it! If not for us, then for our children - and their children!

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References:

- [1] Nearly 50% of Americans: www.shb.ie/content-725487140_1.cfm
- [2] World Oil Shock of 1973: www.worldhistory.com/wiki/1/1973-energy-crisis.htm
- [3] www.wtrg.com/prices.htm (4 million barrels / day = 7% of total production.)
- [4] World Oil Shock of 1973: www.worldhistory.com/wiki/1/1973-energy-crisis.htm
- [5] Energy Information Administration / Annual Energy Review 2003, Figure 14
- [6] Energy Independence Fund outline can be found at: www.energy2005.com (item #4: "Executive Summary")
- [7] Acknowledgements for those who reviewed original drafts can be found in the full report (item #2: "Full Report")
- [8] Yale University poll: http://pesn.com/2005/06/11/9600109_Yale_Energy_Survey/
- [9] www.whitehouse.gov/energy/National-Energy-Policy.pdf

[10] In 1995, ex-Sen. J. James Exon cited "the ever-increasing vicious polarization of the electorate, the us-against-them mentality" for his departure from the U.S. Senate. "The traditional art of workable compromises for the ultimate good of all, the essence of democracy, has been demonstrably eroded."

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Mark Paul has a degree in Physics, post-graduate studies in technology management, and has held senior executive leadership positions within a Global 500 technology company. He has over 25 years of technology and business leadership experience and has written two editions to "The Entrepreneurs' Survival Guide." He is passionate about (renewable) energy-independence, bringing new technology to market, to improve standards of living, building a robust economy, and spreading freedom - by example.

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