

IFEC
Statement of Purpose
June 2, 2011
Rev 3.0

- Entity:** Institute of Fusion Energy Coordination (IFEC)
Institute For Energy of the Creation (IFEC)
<http://www.ifec.us> (active) (com, net, & org to be acquired)
- Mission:** The establishment and operation of the preeminent research organization linking biblical and historical references to light and energy and modern science utilizing resources in the Israel and the U. S. to produce educational and training materials for use by the clergy and educators, as well as an action plan leading to world wide energy independence through the development, commercialization and deployment of an infinite supply of energy in the form of matter converted to energy, as an issue of national security within the United States of America and Israel in partnership.
- Mandate:** Based on the ever increasing thrust for energy world wide, it is apparent that the Earth will deplete its usable fossil fuel reserves in the form of petroleum, natural gas, coal, and the like within a finite and foreseeable future. When mankind no longer has energy, it no longer can sustain itself in the manner in which we have become accustomed given the world wide population. Although “alternative energy”; i.e., solar, wind, tidal, geothermal and bio fuels can help, collectively they will never provide more than 4% of the world’s energy requirements.
- Structure:** The IFEC shall be a partnership between a group of private for profit and non profit enterprises lead by EnergyCite™-USCL Corporation of Sacramento. Objectives include the creation of sustainable recurring revenue to fund the operational needs of IFEC through sources external from the local community and revenues from product sales and royalties resulting from the licensing of major corporations and/or energy utilities of intellectual property held by the private enterprises.
- Purpose:** The IFEC’s charter is to provide education and resources to those entrusted with the successful management of the programs needed to advocate for the commercialization of controlled nuclear fusion energy in order to achieve energy independence. This includes the clergy, politicians, industry, teachers, scientists, and the American citizens. Emphasis shall be placed on the biblical references to energy and the concept of the optical energy and the divine energy. The IFEC shall advocate fusion commercialization to appropriate government agencies and shall identify and arrange for appropriate expert witnesses for government hearings. Additionally, the IFEC shall serve as a clearing house for research, papers, etc. Finally, the IFEC will provide a feedback

loop into the homes of American consumers through the provision of information and data over public access networks to aid in conservation and money management and the status of the quest towards energy independence in a year month and day count down and achievements in current real time and when possible provide a real time energy feedback display within homes. The initial steps are:

1. Frame the problem. Engage Israeli university students, to refine 2050 energy supply & Demand study based on the April 9, 2010 USCL study.
2. Offer the solution. Engage Dr. Gerald Schroeder to write new book titled "The Light of the Creation, G-d's Choice for Energy."
3. Execute the "Plan."

Premise: Physics teaches us that energy and matter are different forms of the same thing. Albert Einstein defined the equivalency as $E=MC^2$. This means that energy equals mass time the velocity of light squared. Thus, a very small amount of matter may be converted into a tremendous amount of energy. One viable process of mass to energy conversion, controlled nuclear fusion, can convert one gram of Hydrogen (Deuterium Tritium mixture) into the equivalent energy contained in 2,400 gallons of gasoline.

Facts: In 1905 Albert Einstein postulated the $E=MC^2$ formula. This is not a theory but a proven relationship. This is what thermonuclear weapons are based on. One gallon of gasoline could be converted into the equivalent amount of energy as 7 million gallons of gasoline through direct conversion to energy using an atomic process assuming 100% efficiency. The only way to achieve 100% efficiency is with matter-antimatter annihilation. This will require much fundamental scientific research with very sophisticated equipment such as large particle accelerators, etc. This may be many tens if not several hundred years in the future and it is far too early to assess the probability of success in commercializing matter-antimatter reactors. There are two known ways to achieve a less efficient conversion. One is nuclear fission. This is used in nuclear power plants today. The down side is that this process is not very efficient and uses highly radioactive heavy elements which are very rare, dangerous, and difficult to process. Further the generation of power through fission produces radioactive waste products which are exceedingly dangerous and have half life's measured in tens of thousands of years. The second known method of atomic matter to energy conversion is fusion. Fusion offers several advantages. Firstly, a fusion reaction generates a thousand times more energy than fission. Next, fusion can be sustained with abundant light elements such as isotopes of Hydrogen. Thirdly, the light element fusion reaction produces virtually no direct harmful radioactive waste. Additionally the "chain" reaction is not automatically carried forward by neutrons therefore fusion is easier to control and can not accidentally "go critical." Today, nuclear fission is deployed world wide. We understand

the science of fusion. We have much engineering, material, and technology development to complete prior to commercialization. However, leading physicists agree this is now an engineering project more than a basic physics research project. The fusion reactor can most certainly be operationally and deployable in less than 20 years. In 1980 President Carter signed the Magnetic Fusion Engineering Act. This Act should have resulted in the demonstration of controlled nuclear fusion reactors by 1995 and commercialization within ten years thereafter. However the Act was never funded and the mission never completed.

- Appendix:
- 1. USCL Projected Energy Supply And Demand Study, April 9, 2010**
 - 2. Controlled Nuclear Fusion; Natures Source of Unlimited Inexpensive Energy.**
 - 3. Secret of the Sun, Tom Tamarkin, December 2010**
 - 4. Magnetic Fusion Energy Engineering Act; Journal of Fusion Energy, Vol. 1, No. 2, 1981.**
 - 5. Fusion; Has The World's Supper Power Lost The Chance To Lead In Energy, Marsha Freeman, Preface by Tom Tamarkin**
 - 6. Reversing the Decline of America, Tom Tamarkin, May 6, 2011**