Thermoelectronic conversion of solar energy and heat into electric power, using graphene membranes and the hydrogen output from our boundary layer turbine. This will create the desalinization/decontamination and production of potable water

Electric power may be generated in a highly efficient manner, as demonstrated at NuEnergy’s Clearwater, FL laboratory, by TUV-PTL, as a Proof of Concept (POC). This POC was carried out from both, heat created by focused solar irradiation and/or the direct incidence of thermal radiation placed upon, or within proximity of NuEnergy’s Thermal Electric Generator (TEG) Cells, which were produced using single layer membranes of graphene, and placed upon a copper substrate. As the conversion efficiency of the thermionic process tends to be degraded by electron space charges, the efficiencies of thermionic generators have previously amounted to only a fraction of those fundamentally possible. We show that this space-charge problem can be resolved by shaping the electric potential distribution of the converter, such that the static electron space-charge clouds are transformed into an output current. Although the technical development of practical generators will require further substantial efforts, we have concluded and shown that a highly efficient transformation of heat to electric power has been achieved using NuEnergy’s Thermal Electric Generator, which is being integrated with NuEnergy’s Power House Generator (PHG) & Clean Water System. For the sake of simplicity of this Abstract, I will just go on to note that the hydrogen output from the BOUNDARY LAYER TURBINE being used in our PHG is, once again, combined with Oxygen, thereby producing $\text{H}_2\text{O}$, which is then filtered and treated by the graphene filtering layers or membranes, through which this water flows, ultimately producing copious amounts of distilled potable Water.

Biography

Hector M Guevara is the Founder, Chairman of the Board, and President of various corporations, including NuEnergy Group, Inc., previously a Public Company, trading on the OTC, and now being held inactive (operations/trading stopped). He has devoted the past 35 years to the research and development of renewable energy systems. His companies designed and or produced many of the most notable solar, wind, and hydroelectric systems deployed throughout the world. The results of his research and development have been assigned to his new Florida Corporation; NuEnergy Technologies Corp. He is a patent and co-patent holder in various sustainable energy and propulsion technologies. He has also been the recipient of various grants from Federal Govt. Agencies, e.g., NASA/SATOP, DOE (SBIR), United Nation’s UNICEF, and others.

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