

Technology on which company is based: **Nuclear energy release in nanoscale metal lattices**

Funding Stage: **Start Up**

Business and Business Model

1. **Inception:** March 2009

2. **Value Proposition:** A new and unanticipated source of clean energy is made possible by processing certain metals in a specific size regime. Metal nanoparticles in the 3-12 nanometer size regime dissolve deuterium nuclei and cause them to undergo massive oscillations leading to nuclear interactions. This new and unanticipated source of clean energy cannot runaway or produce weapons grade materials. It will become the safest and cleanest form of energy for the future.

3. Current Structure: **Privately held**

4. General Description: **Suspensions of nanoparticles in heavy water release heat and hydrogen gas when subjected to high voltage pulses. The nanoparticles focus energy in spatial and temporal dimensions to unprecedented levels. The process is referred to as Inverse Capillary Discharge (ICD). The energy source is deuterium fission and the process is self-regulating. The initial market is military with the hydrogen gas employed to power fuel cells in a closed loop format.**

1. Product: **Inexhaustible source of hydrogen gas for clean energy production. This constitutes the 'hydrogen well' concept that has kept fuel cells from expanding their incorporation into the energy landscape.**

2. Function and Benefit: **Fuel cells are clean, quiet and efficient, but their major drawback is the source of hydrogen gas. The ICD process creates hydrogen gas by photolysis of nuclear radiation. The gas can also be used as an adjunct fuel for current internal combustion engines and thereby greatly reducing the quantity of fossil fuel consumption.**

3. Development Stage ; **Pre-prototype. The science has been verified by three independent laboratories and three National Laboratories will soon announce their corroboration. VET Corp has been tasked by the Electric Power Research Institute to build three parallel systems so that the National Labs will be able to immediately replicate the new energy opportunity. Those announcements are expected before September, 2009.**

Competitive Position

1. Competitors: **Two Japanese research efforts have confirmed the nuclear processes at the nanoscale.**
2. Edge over competition: **This result was anticipated before the Japanese confirmations. Provisional patents have been filed on systems to amplify the energy output in commercial systems.**
3. Sustainability: **We are the first effort in the United States and we have had a 13 year head start on understanding the process. Our patent position is strong.**
4. IP Protection: **Three provisional patents have been files.**

Markets

1. Target Market: **This is an inexhaustible source of clean energy that will revolutionize every energy sector.**
2. Barriers to Entry: **Harmful radiation is of primary concern. To date the energy release has had a small radiation signature.**

Customers. **Military uses will be most Aggressive customer who will co-develop the technology because it answers some key deficiencies. For example, ICD can extend the mission duration for UAVs from 36 hours to indefinite.**

We have early stage financial support from the Electric Power Research Institute

Vibronic Energy technologies Corp

Boxborough MA 01719

Dr. Brian Ahern, CTO

94 Houghton Lane

Boxborough MA 01719

508 633 2365

ahern_brian@msn.com