



Feb 2006: Sent To Jonathon Porritt & Associates at: UK Sustainable Development Commission

**CETEE: (Consultancy for Environmental Technology & Ecological Endeavour)  
A Subsidiary of Global Unity.**

**LNES: Liquid Nitrogen Energy System**

The basis of this proposal is to develop a system to produce Liquid Nitrogen from sustainable energy sources such as Solar & Wind Generated Energy and other sustainable sources. The proposal is to create a LN production plant that can be installed and operated, automatically, 24-7, in domestic and light industrial environments, to allow individual households and small local companies to generate a virtually free (and tax exempt) fuel-energy system to propel vehicles, domestic and light industrial electricity generations, refrigeration, domestic heating & water pumps etc, etc.

Once developed, the system could also be cheaply produced for use, especially in every area of the deprived '3<sup>rd</sup> world'.

**LNES: Urgent Assistance & Support.**

Global Unity is urgently seeking assistance and help to develop this proposal through a Research & Development Program.

In Dec 2005, this proposal was submitted for the Carbon Trusts £250K RD&D (Research, Development and Demonstration Projects) and for £500K through the 'Intelligent Energy Europe' IEE Funding program.

Both applications have been rejected on the grounds that; Government and European sustainable energy funding, in this area, **is only being applied to Hydrogen based projects.**

In Feb 2006, an outline proposal was sent to Jonathon Porritt's Office: Herr Blair's Muppet, at: Sustainable Development Commission. The response was very similar to Carbon Trust and IEE reply

Personally I believe that the 'Hydrogen based energy issue' is due to 'Cynical Postulating' by the Political powers to appease the Environmental Lobby.

Any useable Hydrogen Energy System would still rely mainly on **Fossil Fuel** to provide the massive amount of electricity required to produce the hydrogen, as explained below.

It has also been recently reported that an Israeli Solar Generated Hydrogen project, estimates that it will be about 30 years before this hydrogen technology will be capable of providing usable quantities of hydrogen fuel from solar or other sustainable energy sources.

**CETEE LN2000 Liquid Nitrogen Motor.**

In conjunction with the proposed domestic LN production plant, We have designed a dedicated, highly efficient, cheap to produce, LN Motor that can be used to propel vehicles, electric generators and water pumps etc.

The CETEE LN2000 is a dedicated design to efficiently utilise all energy aspects provided by Liquid Nitrogen.

**Liquid Nitrogen: Free Energy for Today & the Future:**

Liquid Nitrogen has been accepted as a potential & safe alternative to fossil fuel.

There are many environmental advantages in using LN as the basis for a substitute energy system.

Nitrogen makes up about 78% of the Earth's atmosphere. The volume ratio of Liquid Nitrogen is approximately 700 (actually 697.5) times that of atmospheric nitrogen gas.

Nitrogen is an inert gas, which means it is not combustible and does not chemically react with any other materials to form toxins or pollution etc. After use the Nitrogen gas returns to the atmosphere with absolutely zero impact on the environment.

Used in conjunction with the 'highly efficient' LN 2000 Motor, litre for litre, LN produces about the same usable energy as petrol or diesel.

There are several other areas in which LN can be very useful.

**Refrigeration and Fire Extinguishing Agent.**

LN can also be used for refrigeration purposes, thereby eliminating the need to use environmentally damaging CFCs and other ozone damaging refrigerant gases.

LN is also used in many Fire Fighting applications.

The installation and use of an automatic 'Fire Prevention System' based on the light industrial LN production unit or a LN storage tank, in Historic buildings and Art Galleries, would greatly reduce the risk of fire damage to Historic and other buildings and priceless artworks.

**Military Applications:**

In modern warfare, in all armed services, Infra Red detection and the 'Heat Seeking Missile' are probably the most devastating weapon systems and probably the most difficult to evade or defend against.

An obvious answer and use of Liquid Nitrogen would be to screen or camouflage the attracting heat source by surrounding the heat source, engine and exhaust, with a -200 degree C Decompressed Nitrogen Gas, Cold Jacket and 'Exhaust Plume Anti-Thermal System'. This would also have the added advantage of increasing the 'Energy Efficiency' of the engine (tanks etc) and therefore the 'all important' fuel consumption, especially in hot climates, as experienced in 'Desert Warfare'.

**Conservation of Energy: The First Law of Thermodynamics.****You only get out what you put in! To paraphrase Sir Isaac Newton.**

The major drawback in the current Liquid Nitrogen and Hydrogen production is that, in using current fossil fuel technology; LN & Hydrogen requires as much energy to 'manufacture' as it produces.

It takes approximately 13KW of electricity to produce around 5 to 7 litres of LN.

Currently, the required electricity is produced by burning fossil fuel, which effectively eliminates any advantage offered by the proposed Sustainable Energy systems and technology.

The same argument can be used against most other forms and proposals for alternative sustainable energy systems, such as HYDROGEN based systems. If fossil fuel is burnt to produce the LN, electricity or hydrogen etc, as the alternative fuel source, the 'Highly Inefficient' process of burning the fossil fuel, effectively eliminates most advantages proposed by the alternative system.

**Waste Heat: The Primary cause of Global Warming!**

The Infernal Combustion Engine loses about 70% of its energy from 'Fuel' as Waste Heat. CEG (Central Electricity Generation) also loses about 50% of the 'Fuel Energy' as Waste Heat. Not to mention about 25% 'induction' energy lost through the 'Grid'.

Hydrogen powered motors also lose about 60% of the 'hydrogen energy' as Waste Heat.

**LNES: 80% Energy Efficiency:**

LNES principle is based on very low temperature (Cryogenics) The LNES actually uses the ambient temperature to its advantage and efficiency. The LNES becomes more efficient the hotter the weather, ideal for Global Warming! Eh!

Residual heat produced during LN production can be recycled back into the production process.

LN production also produces other, very usable, compressed atmospheric gases, such as Oxygen, which has many uses, especially in medical and manufacturing processes.

**Current LN Production Technology:**

The current technology used to produce LN is only about 20% efficient. This is mainly due to the poor efficiency of modern Compressors and Refrigeration Systems, used in the current production process.

**New LN Production Technology:**

This LNES Production proposal is based on innovative compressor and cooling system designs that are estimated to be about 80% efficient. This means that the previous energy required; 13KW to produce 7 Litres of LN, would be reduced to approximately 2.5KW to produce the same 7 litres of LN, using the new LNES.

This amount of electrical energy can easily be produced from current Photovoltaic Solar Panels and small wind generators.

**Cheap & Simple Production Costs & Methods:**

Due to the low temperatures utilised in the LNES, in both the LN Production System and the LN 2000 Motor, the entire system can be fabricated from modern plastics, light alloys, ceramics and the limited use of composite materials. Many of these materials can be sourced from waste, recycled materials, which can be found 'down at the local Tip'.

These materials provide 'Low-Tech', very cheap and rapid manufacturing processes, which can be produced in a medium sized workshop, in your back garden, or anywhere in the deprived '3<sup>rd</sup> World'.

**Current LN Engine Technology:**

There are currently numerous LN engines in production and development, these are generally derived from the principles of steam engines, infernal combustion engines or vane driven air motors, such as the Gast Motor. All of these systems prove to be highly inefficient when converted to a LN 'fuel-energy' source.

The CETEE LN2000 is a dedicated design to efficiently utilise all energy aspects provided by Liquid Nitrogen.

A CAD generated video clip is available of the working LN 2000 motor, although this is for limited presentation due to 'Patent Restrictions'.

Contact Details:

Dr. John A Webb PhD.

email: [globalunity2000@aol.com](mailto:globalunity2000@aol.com)