

## **Global Energy Parliament Proposal for Sound as a Viable Form of Renewable Energy**

The increasing demand for energy especially in developing countries provides a good platform to look at new sources of renewable energy. There are significant drawbacks to all forms of renewable energy on a wide scale, including the expense of materials in especially photovoltaic panels for solar energy, dependency on weather conditions, and disturbance to the environment for wind energy.

The Global Energy Parliament requests the United Nations Commission on Sustainable Development to support the work going on to look at sound energy as a viable renewable source of energy using nano-materials, as it will provide a cost effective, low-impact method of powering homes or villages.

There have been promising recent attempts to improve the efficiency of sound energy<sup>i</sup>. Research carried out on piezoelectric materials as crystals of quartz, Lithium Niobate has shown that sound energy can be converted into electrical energy. However, it is necessary to carry out further research on different types of materials for improving the conversion of sound energy into electrical output. In this context the use of nano-materials appears promising. Specifically, Cagin and his partners from the University of Houston have found that a certain type of piezoelectric material can convert energy at a 100 percent increase when manufactured at a very small size – in this case, around 21 nanometers in thickness<sup>ii</sup>. In addition, a group of Korean scientists have come out with a device for efficient conversion of sound to electricity using nano-materials<sup>iii</sup>.

In the words of our Founder, Swami Isa, “The stiff competition that exists among nations to grab sources of energy poses a great threat to world peace. We can regard sound electricity as a gift of nature, avoiding conflicts and build a new world of peace and joy.” The practical application of this concept is of great importance now, and this submission is also a proposal to enlist the cooperation of the United Nations, which has always stood for peace, prosperity and co-existence.

Director

March 18, 2013

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**References**

- <sup>i</sup> S.R. Bhatnagar, International Journal of Emerging Technologies, Vol 2 Issue, 10, Oct 2012, pages 267-270.
- <sup>ii</sup> T. Cagin et al, "Dramatic enhancement in energy harvesting for a narrow range of dimensions in piezoelectric nanostructures," Phys. Rev B, Sept 2008
- <sup>iii</sup> Sang-Woo Kim et al, "Sound-Driven Piezoelectric Nanowire-Based Nanogenerators," Advanced Materials, Vol 22, Issue 42, pp 4726-4730, Nov 2010