



Greening Fossil Energy

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### **HCE AND AKER KVAERNER AGREE TO COOPERATE IN THE DEVELOPMENT OF A NEW PROCESS FOR GENERATING ELECTRIC POWER AND HYDROGEN**

*Oakton, VA.* HCE, LLC announced today that it reached agreement with Aker Kvaerner Engineering & Technology (AKET) to cooperate on engineering development of HCE's breakthrough electricity and hydrogen production process, the "Integrated Plasma Fuel Cell Process." The agreement sets the contractual framework and memorializes their intention to cooperate and work together.

HCE's Integrated Plasma Fuel Cell Process is a patent pending process that utilizes two principal components to enable the production of electricity and hydrogen from fossil fuels and biomass. The process can be configured to use the hydrogen produced to form critical fuels such as synthetic gasoline and diesel fuel. The first component is Kvaerner Technology and Research's (KTR) Electric-Arc Hydrogen Plasma Black Reactor and the second is the Direct Carbon Fuel Cell.

The Electric-Arc Hydrogen Plasma Black Reactor was invented and commercially utilized by KTR to produce carbon black for the tire industry. The KTR technology "cracks" a fossil fuel into its hydrogen and carbon components in an oxygen free environment. Its very high efficiency, low electricity consumption and very low pollution make it the ideal complement to the Direct Carbon Fuel Cell, which cleanly combines carbon with oxygen from the air to produce electricity and concentrated carbon dioxide.

HCE's President and Chief Executive Officer, James C. Jordan, said, "This agreement is an important step---enabling HCE to expedite commercialization of the Integrated Plasma Fuel Cell process." We welcome KTR's agreement to cooperate because KTR has the experience and engineering talent HCE needs to make rapid progress on a functioning demonstration plant," Jordan said. He continued, "We are in a race against a growing global demand for energy and the urgent necessity for a dramatic reduction in pollution and 'greenhouse' gases."

Mr. Jordan explained, "Our analysis shows that the Integrated Plasma Fuel Cell process is an economically attractive electric power generating process that significantly improves environmental performance over other systems using fossil fuels." "That alone is enough to warrant rapid deployment," he added, "but the IPFC process is also calculated to enable the production and consumption of hydrogen from fossil fuels with less resulting pollution than if the fossil fuels were utilized directly." That second potential is revolutionary because it meets the environmental goals of a hydrogen economy," he said.

HCE, LLC is a U.S.-based, State of Virginia, Limited Liability Company organized in 2003. Aker Kvaerner is an international engineering company headquartered in Lysaker, Norway.