Finacial collapse of US, energy crisis and emission of greenhouse gases

Energy will be decisive in the economic development of the next decade. Here a suggestion for a global initiative is presented which offers the opportunity to strengthen the US economy and secure the financial leadership. It will be a rejuvenation for the automobile industry.

The Global Energy Initiative
Executive Summary

Clean energy and climate protection may boost the economy
Solar electricity from the deserts

The Arabian Deserts, the deserts of the West of USA, Mexico, the Chilean Atacama Desert, The Thar Desert in India, The Gobi Desert in China and the Deserts of Australia provide solar energy sufficient to supply the energy demand of the whole world. A network of direct current high voltage cable following the system of Buckminster Fuller's Global Electrical Grid may unite the continents. The side of the earth facing the sun may thus furnish energy for those who are in the dark.

Mix of photovoltaic, solar thermal power plants and windmills

A mix of photovoltaic, solar thermal power plants and windmills must be tailored to the specific local condition. However photovoltaic should be chosen for an immediate start, modular construction and simplicity of its technical outfit.

The energy delivered by these power plants may alleviate the pressure on the environment of industrial countries and rising economies, like China and India. Further development of the global system may become he main energy source, reducing total emission near zero. Power plants running on fossil fuel or nuclear power may then stand only as an emergency resource.

Hydrogen from solar energy for transportation

Hydrogen may be produced by electrolyses of water on demand using the overproduction of electricity of the system. Hydrogen is the best fuel for clean transportation. It is handled in a similar way as gasoline at fuel stations. The cars are therefore free of range limits of electric driven cars.

Technology of hydrogen cars were developed on fuel cells as well running with conventional combustion engines. Hydrogen is a clean technology as it uses water and end in water.

Financial and political outcomes of the project

The new equipments will boost the economy of USA and strengthen the international financial exchange. The image of USA will improve when poor regions are provided with affordable clean energy.

Rising emission of greenhouse gases, growing dependence on import of crude oil and a desolate image of US environment politics of the era Bush make it imperious to pursue draconian measures. Here is a proposal which enable the US to regain leadership while tackling the world energy crisis.

Roadmap for the global Energy Initiative

The government should start the US Energy Initiative:

Phase 1

- Build a 100 mW photovoltaic power plant in the Mojave desert, together with a hydrogen production plant in Henderson, by Las Vegas. Construction and investment should be realised in participation of the local energy corporations and the US Department of Energy.
- Initiate a media campaign related to the advantages of solar power and hydrogen driven cars.
- Initiate the distribution of mobile hydrogen refilling stations, with high density in California
- Build a hydrogen production plant from the hydroelectric energy of the Great Lakes region, together with a hydrogen production plant in Toledo, Ohio. Construction and investment should be realised in participation of the local energy corporations and the US Department of Energy.
- Initiate the distribution of mobile hydrogen refilling stations, with high density in Wisconsin, Michigan, Indiana, Ohio, Pennsylvania and New York.

Deadline: Planing and construction of the sites in California and in the Region of the Great lakes should be completed by December 2009.

- Invite the governments of Australia, China, India and Europe and Arabia Delegation to join the Global Energy Initiative.

Deserts to be focused on are: US deserts, like Mojave and Chihuahuan, Mexico supplying North and Central America, the Atacama Desert in Chile and the arid land of north-east of Brazil. The Sahara desert and the desert of the Arabian peninsula to supply Europe and the African continent. The Thar desert in India and the Gobi desert to supply energy for Asia. The Desert of Australia may provide energy and hydrogen for the Pacific Region.
The DESERTEC Project of the European Union should be integrated in the actual project.
Deadline: April 2009. The information meeting of the Government should be a preparation for Copenhagen 2009 in order to prepare the global agreement of the Global Energy Initiative.

US Presentation of the Initiative at the Copenhagen Conference December 2009
To present the system in Copenhagen the first governmental results, a well worked out road map and a strong commitment to climate protection is needed. Present the global Energy Initiative at the UN Climate Conference in Copenhagen in 2009 and signing of the global cooperation under the umbrella of the United Nations.
Deadline: December 2009.

Phase 2

Based on the experiences of phase 1 the construction of solar power plants in the different deserts should be started in the different deserts, with help of the industrial countries and private investments.
Deadline: 20015

Phase 3

Interconnection of the different sites using HVDC cable according to Buckminster Fuller's Global Electrical Grid. The global grid will then be completed and day and night electricity supply will be offered by the side which is turned to the sun.
Deadline: 20025.