Captured from www.iesiusa.com on 4 June, 2005

An Alternative Approach

Fossil-fuel burning power plants provide more than half of the electricity used in the United States, but also produce about 69% of the sulfur dioxide emissions which contribute to ground-level ozone and smog, and the steady degradation of our environment.

Global Warming

The August 15, 2003, blackout of power plants in northeastern United States and southeastern Canada reduced sulfur dioxide by 90% the next day. Satellite images taken from space just days prior to, and following North America's August 2003 blackout gave scientists crucial evidence on the negative impact that fossil-fuel burning power plants have on our environment. What surprised scientists was not so much the observation of improved air quality during the blackout, but the great magnitude of the observed improvement.

The idea that the human species could alter something as huge and complex as the earth's climate was once the subject of an esoteric scientific debate. But now, consensus is growing among scientists, governments and business that they must act fast to combat the climatic changes being caused by the emissions of carbon dioxide, one of the heat-trapping greenhouse gases blamed for global warming. CO2 in the lower atmosphere is now at its highest level for at least 420,000 years and stands 34 percent above its level before the Industrial Revolution.

According to the European Environment Agency study released in August 2004, three-quarters of the Swiss Alps' glaciers might melt by 2050, and the EEA's projections show that by 2080 cold winters in Europe could disappear almost entirely and hot summers, droughts and incidents of heavy rain or hail could become much more frequent. The same EEA study reported that the number of climate-related disasters per year doubled over the 1990s compared to the previous decade, costing economies around $11 billion a year.

Dependency on Foreign Oil Crude oil production capacity is stretched so thin, demand is so high, and supply is so fraught with uncertainty that the world is just an Iraqi oil field explosion from another oil crisis similar to the one in 1973.

And even as the price of crude oil rises to nearly $50 a barrel, the Western world and China continue to binge on energy derived from fossil fuels imported from foreign countries. The U.S. has increased its already world-leading consumption of oil by 20% in just the past decade. To make matters worse, in 1973, the U.S. imported 30% of its oil, but today more than 60% comes from foreign sources. Sky high oil prices and disruptions in supply aren't the only problems. Some

industry experts think we are near the point – if we're not already there - at which the world's supply of crude oil peaks and then begins to decline. Even the optimists believe the start of the downward slope is only 35 years away, so it doesn't really matter who's right, as three decades is precious little time to reconfigure the world's energy system.

Kicking the Oil Habit

Investments in alternative fuels are starting to boom.

Wind power generation is becoming more competitive in India, some parts of the U.S., Germany, Spain and Denmark. Wind power generation in Europe is expected to grow enormously over the next two decades. The industry estimates that wind power will account for 28 percent of all new electricity by generation capacity in Europe by 2010. Furthermore, the industry predicts wind turbines will generate more than 12 percent of the continent's power by 2020.

Solar energy technology is making incremental strides. And hydrogen has great potential, as many experts agree that hydrogen could eventually eliminate the need for any fossil fuels, and do so without producing the greenhouse gases that contribute to global warming.

The Time is Now

The world-renowned scientists at iESi have made major scientific breakthroughs, resulting in revolutionary means for producing clean energy and hydrogen which are reliable, efficient and cost-effective.

Bottom Line

It's only a matter of time before the world is forced to change its approach to energy. We at iESi have decided the risks are too great to wait. For the sake of economy, and more significantly, the environment, implementing alternative energy technologies today is not only prudent, it's imperative.

Sources:

University of Maryland, Geophysical Research

Letters European Environment Agency Report – August 2004

MIT Technology Review – September 2004