



BIODIESEL INDUSTRIES INC.

PRODUCTION - TECHNOLOGY - SALES

Opportunities and Obstacles for Biodiesel Development in the U.S., India and Elsewhere

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What is Biodiesel Industries?

- Privately held company
- Builds, owns & operates biodiesel production facilities
- JV's with strategic partners – petroleum companies, municipalities
- Six plants since 2000 – California, Colorado, Nevada, Texas, Detroit & Australia
- Cooperative Research & Development Agreement (CRADA) with US Navy
- Feasibility Studies – India, Thailand, Philippines, China, Malaysia, Singapore, Argentina, Israel, Canada and Mexico



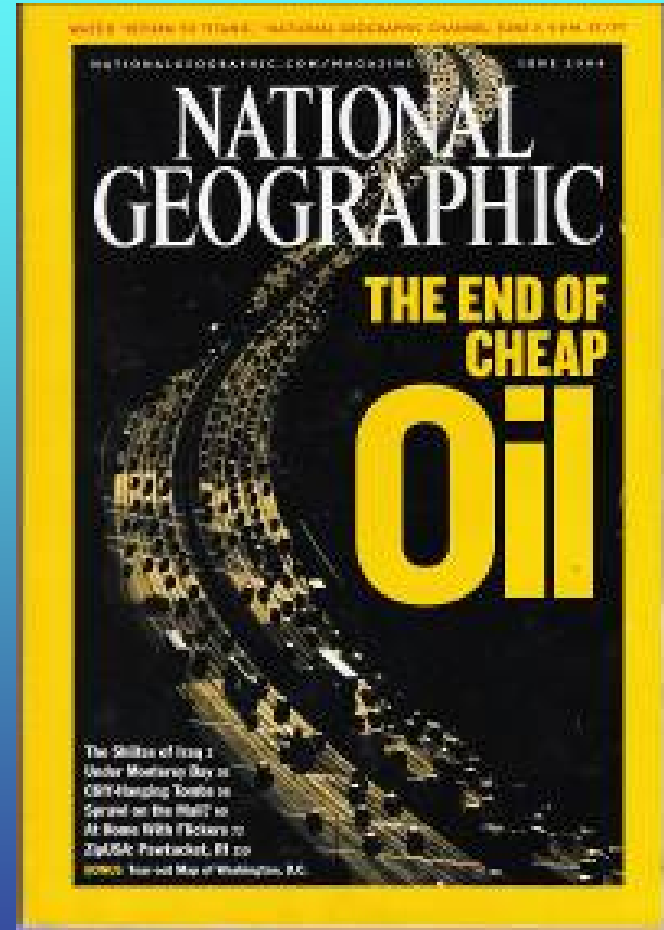


Conclusion 1: The Energy Crisis

The end of cheap oil has been trumpeted by every major media outlet for the past several years. The impacts of weather and geopolitics have quickly driven oil prices to over \$60 per barrel, unheard of prices even four years ago.

Yet this crisis was not unpredictable. Global energy demands have been increasing, while finite energy resources such as petroleum are being depleted. Prices are driven by the simple economic laws of supply and demand, and the result for petroleum prices has been a steady rise in prices.

Rising prices, social dislocation, air pollution, international conflicts, all have driven communities and governments to rethink their energy needs, and to strive to find sustainable, nonpolluting alternatives to petroleum.



Conclusion 2: Feedstocks

Every country and region has the need for new, improved and appropriate oil seed crops

The emphasis should be on sustainable agricultural practices using marginal land that does not require extensive irrigation or fertilization, and does not disrupt food supplies.

There should be support for an aggressive international cooperative effort involving government, academia and business.





Conclusion 3: Infrastructure Development

Distributed Production

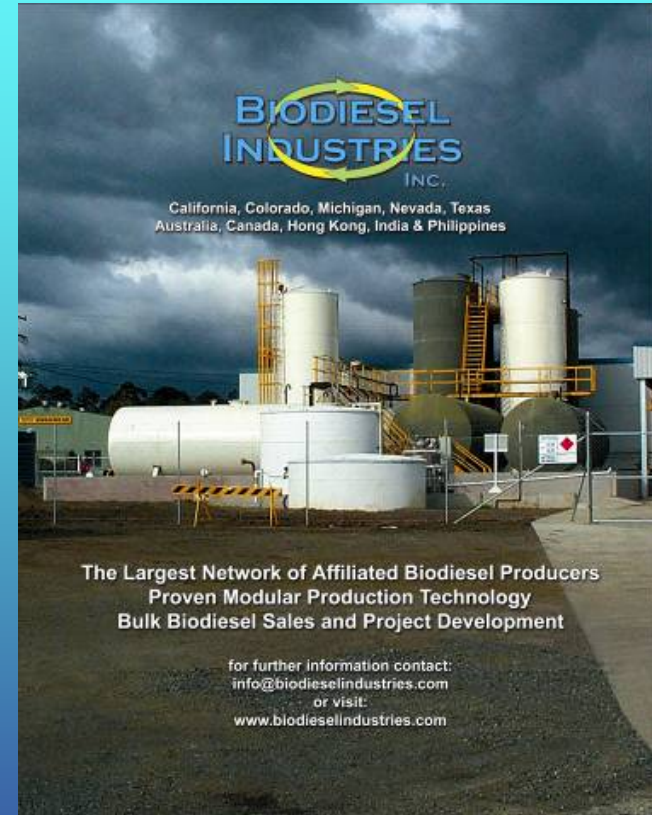
Smaller Regional Plants in the 10-15
mgy range

Vertical Integration

Ag Development, Oil Seed Crushing,
Biodiesel Production

Government Support

Loans, Guarantees, Grants, Tax
Forgiveness



Local Feedstocks, Local Production,
Local Consumption, Local Jobs

Conclusion 4: Rural Economic Development

It is estimated that one MPU and the adjacent plantation areas would employ 20,000 families in the collection and processing of oil seeds to be used for making biodiesel, and could double each family's annual income from work performed during only a portion of the year.

Other benefits include the capability to generate and distribute electricity into rural communities that are now isolated from the grid by using the biomass generated from the hulls of the oil seeds used for making biodiesel.

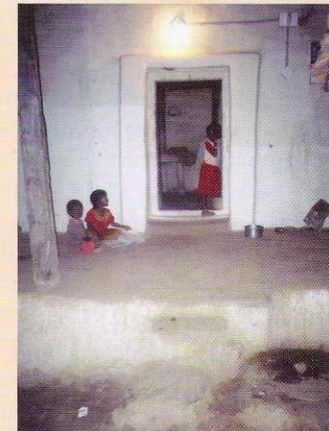
The production of biodiesel can provide meaningful employment for hundreds of thousands of people in some of the poorest rural areas, utilizing wastelands that are not now productive

As the Government of India embarks on its ambitious plan to provide access to electricity to all households in the next five years, about 125 000 villages in India still do not have access to electricity. Many of these villages are remote, located far from electricity grids, and would, therefore, require decentralized generation of electricity using renewable energy. Keeping this requirement in view, the EET Division has been involved in the development of small-capacity biomass-gasification-based power plants.

After several years of research, three 10-kW_e-capacity systems were deployed for field-testing and demonstration during 2004/05. A charcoal-based power plant was commissioned at Kanheiput village in Orissa's Ganjam district in collaboration with the local NGO, Gram Vikas. This plant was a part of the Swiss Agency for Development and Cooperation-sponsored LIBERA (Livelihood Improvement through Biomass Energy in Rural Areas) project. The installed system supplies electricity to villagers during evenings and is being operated successfully by field operators. Commissioned in May 2004, the plant has completed about 1600 hours of trouble-free operation.

Similarly, the Division installed a wood-based power gasifier system in Deodhara village in Nuapara district of Orissa, in association with the Orissa Renewable Energy Development Agency in October 2004. This was followed by the commissioning of a wood-based system in Jamera village in Korba district, Chhattisgarh, for the National Thermal Power Corporation. A TERI team is monitoring the performance of both plants, and improvements to them are being planned to make the technology robust and reliable enough for large-scale promotion.

Lighting up India's remote villages



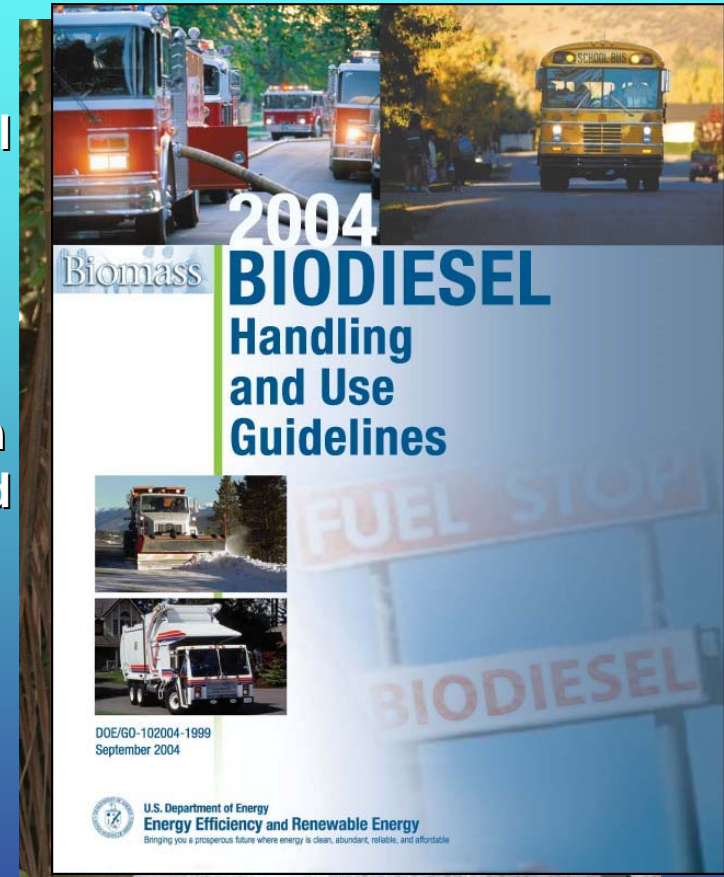


Conclusion 5: Standards & Quality Control

To maintain quality control and ensure consumer acceptance, international standards for biodiesel need to be established, disseminated and updated.

The definition of biodiesel contained in ASTM 6751, along with the physical and chemical property limits, eliminates certain “biofuels” that have been incorrectly called biodiesel in the past.

Raw vegetable oil or animal fat, and partially reacted oils are not biodiesel. They can cause substantial damage to modern diesel engines, and should not be confused as being biodiesel.



The International Community Needs to Develop, Implement & Enforce Consistent Biodiesel Standards



Conclusion 6: Necessary Government Policies

1. Price Supports & Tax Policy to Level the Field with Petroleum
2. Biodiesel Fuel Use Standards for All Diesel Fuel
3. Enforcement of Standards



Government Support Needs to be Long Term & Consistent!

Conclusion 7: Support for International Model Projects

Governments globally have recognized the need to move towards using domestically produced biodiesel.

With the support of the policies recommended previously, it would be possible to develop the necessary infrastructure to produce large volumes of biodiesel.

The first step would be to create a commercial demonstration project that can serve as a model for other facilities, and also serve as a research, training and technical support center.



With the Support of US ExIm Bank,
There is the Potential for Hundreds of Such Projects