LATIN AMERICA
cleanenergy

OWCE Latin America Build Own & Operate Case 2010

Achieving Energy Independence and Regional Job Creation for Latin American Communities with a One World Clean Energy (Patented) Integrated Biorefinery via the Build, Own and Operate Model

Issues

"Energy is the single most important problem facing humanity today not just the U.S., but also worldwide." Nobel Laureate Dr. Richard Smalley - Our Energy Challenge

Brittle Power*: Energy Strategy for National Security* is a 1982 book by Amory B. Lovins and L. Hunter Lovins, Lovins argues that The United States has for decades been running on energy that is "brittle" (easily shattered by accident or malice) and that this poses a grave and growing threat to energy security in the Americas, as well as our lives, and liberty.

Electricity

The size, complexity, control structure of the electrical power system make it *inherently* vulnerable to large-scale failures. Rolling brownouts are commonplace in Latin America and the Caribbean due to generation capacity being outpaced by demand and grid instability.

Transportation Fuels

Over the last few decades, the global community has watched many countries sway economically, alongside the fluctuation of the price of a barrel of oil. Today, over 80 percent of world petroleum reserves are state-owned, and controlled by countries that have the power to manipulate supply and price with impunity. This fact goes directly to the heart of global energy security.

Clean Water

Community water treatment facilities are overtaxed, especially those that combine drain water with sewer water. The rainy season overrun often spills into local tributaries, streams and rivers. Rural communities in the Americas still uses septic systems as mainstay sewer treatment. This often leads to leakage into the aquifer. The population increase in these communities places pressure to expand water treatment capacity with little to no money allocated. The search continues for cost effective clean water and purification techniques.

Goal: *Energy Independence* means energy abundance and energy self-sufficiency derived from a variety of domestic energy resources. Energy independence can be achieved through the development of alternative transportation fuels and electricity.

From an economic point of view, *Energy Independence* means energy security (supply and price stability). Renewable energy must be explored as an economic development opportunity.

1. **Break Dependence on Imported Oil.** Promote the domestic production and consumption of alternative transportation fuels.
2. **Mitigate the Effect of Electric Grid Instability.** Produce electricity generation near demand/consumption.
3. **Achieve Community Sustainability & Support Local Farmers.** Community sustainability plans are based on low cost energy and economic development. Renewable transportation fuels and distributed electricity that utilizes regional feedstock will create regional jobs, local wealth and attract business and industry.
4. **Clean Up Water Supplies**. It is important to encourage the move from septic to sewer, and to increase water treatment capacity to accommodate population increases and septic system removal.

Optimal Municipality Economic Site Profile
50 Mile population: 500,000+
20 Acre Site Zoned Light Industrial – Build to Suit
Infrastructure Availability / Transportation Access
Idle/Marginal Land to grow Fuel Crop (Optional)

A potential site must be able to support the use of 35 million gallons of gray water or 30 million gallons potable water annually. Access to a natural gas pipeline capable of accepting "input" as well as supplying gas is required. Major road access, able to support an average of 40 tractor trailer deliveries daily, is required. Communities and/or economic development agencies must demonstrate a strong technical capability to support and facilitate grant and loan programs. Strong localized incentives will also be evaluated.

Funding
The World Bank, OPIC and ExIm Bank have put many types of initiatives in place to spark interest in renewable energy projects. The purpose of these programs are to provide loans, loan guarantees and grants for the development and construction of commercial-scale renewable energy/fuels production facilities or waste water cleanup.

The Best Answer for Build, Own, and Operating Renewable Energy Production:
The One World Clean Energy (Patented) Integrated Biorefinery

The OWCE model for a (patented) **integrated biorefinery** provides agile, adaptable, and ready operational capabilities, best suited to serve community energy interests in Latin America and the United States. The integrated biorefinery provides any community renewable electricity, renewable natural gas, ethanol and biodiesel.

Moreover, OWCE assesses each opportunity from the aspects of community energy demand, waste streams, natural resources and regional agriculture potential. With the data attained, OWCE will craft a unique project plan to implement this flexible technology resulting in collaborative efforts with the community and job stimulation in the region.

Return-On-Investment
Communities and Rural Electric Cooperatives are interested in the OWCE (patented) Integrated Biorefinery for alternative energy production because it provides the following *Return-On-Investment (ROI)*.

1. **Regional Production and Consumption** of alternative transportation fuels is a key factor in breaking dependence on imported oil.
2. **Distributed Electricity Generation** is more economically viable than distributed energy/fuel. For instance the inefficiency of electricity realizes a 70% decrease in voltage at the greatest feasible transmission distance. Generation near consumption offsets risk associated with grid instability or grid availability.
3. **Distributed Electricity Generation and Distributed Production of Renewable Fuel** creates local/rural jobs as well as supporting the region's farming community.
4. **An Increase in Low-Cost Renewable Energy Production is a Solid Growth Strategy for Neighborhoods and Agricultural Communities.** When area industry and commerce benefits, the revenue cycle benefits all involved. The viability of going green is heightened with the build, own and operate model from an economical, functional, and environmental point-of-view, with at least a 20-plus-year operational return.

5. **Provides Water Reclamation Within the Community**. The reclamation and use of sewer water can be useful in adding capacity to the current community water treatment system, as well as the stewardship of area waterways by encouraging the move from septic to sewer treatment in the local farming communities.

Next Steps

To schedule an appointment to discuss a feasibility assessment, contact Bill Bivins, CEO of One World Clean Energy and his team of professionals at bill.bivins@oneworldcleanenergy.com.