OWCE Municipality Case

Achieving Sustainability, Increased Revenue, and Regional Job creation for Municipalities Through Joint Venture Operations of a OWCE (Patented) Integrated Biorefinery

Issues

Municipalities strapped for revenues, pressured for new job creation, and a mission of sustainability regarding the environment in their communities.

While municipalities have access to source revenues such as fines and penalties, charges for services, and investment income, the bulk of their revenues come from the property tax, and grant funding from other orders of government. This does not lead to balanced growth in regions due to the competition for property taxes.

Economic recession, and interests in protecting local environments, including farming, has put pressure on municipalities to reinvent themselves and generate new revenues. Job creation from renewable energy planning and construction has become important to communities seeking opportunities in their sustainability efforts. As energy pricing is increasingly in the spotlight, all municipalities are looking for ways to implement energy efficiencies and savings. They are reviewing federal and state incentives to produce electricity, natural gas, as well as biofuels.

Municipalities collectively consume more than 70 percent of the natural gas and electricity used in the country

Goal: **Delivering energy efficiently to our homes, businesses, schools, governments, and industries is one of the most constructive, cost-effective ways to address the challenges of high energy prices, water cleanup, along with job creation and revenue opportunity.**

1. **Achieving Municipal Sustainability.** By 2030, experts estimate that more than 60% of the human population on Earth (nearly five billion people) will live in cities. This highlights the fact that we cannot achieve global sustainability without making our cities significantly more sustainable that they currently are.
2. **Increasing Source Revenues for Each Participating Municipality.** Budgetary concerns affect most municipalities in the US recession and communities are looking for new ways to generate dollars.
3. **Cleaning Up Water Supplies**. Municipalities are increasingly scrutinizing their waterways, including streams and rivers, to protect the environment and the area's water supply. In addition, sewer water can be reclaimed and used as a watering resource.
4. **Creating (RE or community) Jobs, Supporting Local farmers.** Job creation is important as an initiative of government to enhance and secure the economic development in a region.
5. **Producing Low-Cost Energy that Attracts Business/Industry (RE and or Low Cost.)** Optimizing waste stream use with the goals of landfill diversion and cost reduction reduces the environmental impact supporting environmental stewardship.

Optimal Municipality Economic Site Profile
50 Mile population: 500,000+
20 Acre Site Zoned Light Industrial – Build to Suite
Base Utility Partner willing to Engage in Cooperative Partnership
Past Performance, Capabilities and Qualifications of Local Economic Development Agency/Organization (Grants & Federal Relations)
Infrastructure Availability / Transportation Access
Idle/Marginal Land to grow Fuel Crop (Optional)

A potential site for a (patented) integrated biorefinery by One World Clean Energy (OWCE) 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. The site must be near a high voltage electricity sub-station. There must be major road accessibility to support an average of 40 tractor trailer deliveries daily. Ideal sites should be located within 50 miles of a population center of 100,000 to 200,000. A one-half mile agricultural buffer surrounding the site is ideal. There must be an agriculture supply chain and complementing industry base within a 75-mile radius. Communities and/or economic development agencies must demonstrate a strong technical capability to support and facilitate state and federal energy related grant and loan programs. *Strong localized incentives will also be evaluated.

The Importance of Financing Partnerships As the Sustainability and Savings Answer
Financing options afford planning and feasibility assessments to maximize the role of the municipality in achieving sustainability and private industry resources will play a role. The challenges of the times require municipalities to step up and consider renewable energy for economic development, cost savings, revenue creation, and employment stimulus.

To mitigate the inter-municipal competition for assessment revenues, a new joint venture that links municipal revenues with energy savings/energy production would allow municipalities flexibility in meeting the complexity of service and infrastructure demands.

The result is a true partnership between the energy producer and municipalities, featuring effective long-term planning, and a better capacity to meet the growing demand for services such as street lighting, waste pickup, water and water treatment while achieving municipal sustainability.

Funding
Several different government funding sources are potentially available for energy and water conservation projects. Sources include Sustainment, Restoration, and Modernization (S/R&M); Energy Conservation Investment Program (ECIP), American Recovery and Reinvestment Act (i.e., economic stimulus) funds, and Federal Energy Management Program.

The BioRefinery Assistance Program is administered by USDA - Rural Development. The purpose of this program is to provide guaranteed loans for the development and construction of commercial-scale biorefineries or for the retrofitting of existing facilities using eligible technology for the development of advanced biofuels.

Primary Funding Sources
1. **Energy Conservation Investment Program funds (ECIP**) including:
    - Energy Savings Performance Contracting (ESPC)
        - Energy Services Agreement (ESA)
    - Utility partnerships
        - Utility Energy Savings Contracts (UESC),
        - Power Purchase Agreements (PPA)
2. **American Recovery and Reinvestment Act (ARRA) funds**
3. **USDA Loan Guarantee and Grant Programs**

<u>The Best Community Answer for Build, Own, and Operating Renewable Energy Production at the Municipal Level</u>*: *<u>The One World Clean Energy (Patented) Integrated Biorefinery</u>

The OWCE model for a (patented) **integrated biorefinery** provides agile, adaptable, and ready operational capabilities best suited to serve the Nation's community energy interests. The OWCE (Patented) Integrated Biorefinery provides any municipality renewable electricity, renewable natural gas, ethanol and biodiesel for the performance of safety, security, and environmental stewardship roles.

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. The OWCE (Patented) Integrated Biorefinery joint venture approach results in reduced energy costs, increased electricity reliability, and even job stimulation in the region.

It is feasible that a joint venture between OWCE and the municipality will succeed beyond savings that simply pay for the project….it could produce budgetary revenue for the municipality!

Benefits of a Renewable Integrated BioRefinery: Energy Security and Cost Savings Now

The One World Clean Energy (Patented) Integrated Biorefinery-Flexible, Adaptable Operational Capability…Renewable Energy Production

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Return-On-Investment

Municipalities are interested in this model for alternative energy production from waste management because it provides the following *Return-On-Investment (ROI)*.

1. **An Increase in Low-Cost Energy Production is a Solid Growth Strategy for Municipalities.** 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 and economical, functional, and environmental point-of-view, with at least a 20 plus year operational return.
2. **Increases Revenues for the Municipality Directly through Renewable Energy Production and Discovery of Energy Efficiencies.** Cash-strapped local economies are excited to embrace ideas that generate revenue and contribute to the bottom line.
3. **Provides Water Reclamation Within the Municipality**. The reclamation and use of sewer water can be useful in adding capacity to current municipal 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.
4. **Achieves Environmental Stewardship.** Waste streams on and even near the biorefinery (within a 75-mile radius) can be managed, and monetized to their optimal advantage. All types of organic waste are converted to energy in the OWCE (Patented) Integrated Biorefinery. This will include reuse of sewer sludge, and the reuse of waste cooking oil. The renewable electricity generated may offset carbon based electricity (typically coal) in the region.
5. **Economic Development Through Job Creation With Renewables.** OWCE (Patented) Integrated Biorefinery creates operation and it can create jobs for the local economy by attracting business and industry focused on using renewable energy.

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.