**OWCE Tribal Case 2010**

**Achieving Economic Prosperity, Increased Revenue, and Jobs for America's Indian Reservations Through Joint Venture Operations of a One World Clean Energy (Patented) Integrated Biorefinery**

**Issues**

Considerations regarding industrial development, energy generation and coal mining on American Indian reservations meet resistance almost immediately. They are perceived as a betrayal of mother earth in the culture. About 80% of reservation residents are unemployed and dependent on federal aid and live below the national poverty level. The potential jobs from the increase in demand for energy versus the pervasive soaring poverty within our nation's Indian reservations are energizing the debate between tribal traditions and economic self reliance.

Tribal values are rooted in protecting the land, yet their resources often seem like the only path out of poverty, says Garrit Voggesser, senior manager of the National Wildlife Federation's tribal lands conservation program. "Tribes have tough choices to make ... between their cultural and historical legacy and extraction," he says.
Some members of tribes warn that industrial development would betray the tribe's duty to protect the earth. "This is the last war that our people are going to face," says Phillip Whiteman, 51, a founder of Yellow Bird, a non-profit group based that promotes respect for the land and environment. "If we go against ourselves by submitting to the industrial culture, we're doomed."

**Renewable Energy Can Bring Harmony**
Renewable energy is a possible path out of poverty for "non-gaming" tribes while upholding cultural traditions. Tribal renewable energy projects, financed through government grants, tax credits, private equity and loans could bring in greatly needed jobs, revenue and improve drinking water systems. President Barack Obama acknowledged the possibilities during a meeting last fall with leaders of the nation's tribes. He said he would work to ensure tribes have access to financing for energy projects, replace the lagoons it uses to treat wastewater, and fund other community projects. Indian tribes control more than 55 million acres of land across the nation.

Still, the development of renewable energy on Indian land is in its infancy.

***Goal:*** **Develop renewable energy projects on the Indian reservations that are symbiotic to the land. Renewable energy is one of the most compelling solutions to address the challenges of high energy prices, and water cleanup, along with pervasive poverty that tribes face today.**

1. **Bring renewable energy options and energy efficiency options to Indian tribes.** Indian tribes have a voice in the critical national dialogue regarding the emerging green economy generally, and renewable energy and infrastructure development specifically. "We are united in trying to bring the right kinds of opportunities to Indian country," said the Indian Country Renewable Energy Consortium board president, Osage Nation Principal Chief Jim Gray in 2009.

2. **Improve local tribal economies and the environment.** The economic impact of a vibrant land use model can have far-reaching impact within American Indian communities. Tapping renewable energy creates jobs while upholding cultural traditions, says Winona LaDuke, an Ojibwe economist on Minnesota's White Earth Indian Reservation and executive director of the environmental group Honor the Earth. "Indian tribes should not be ... put in a situation of creating an economy that destroys their people," she says.
3. **Make a difference in the quality of life for Native Americans with human capacity building and job creation.** The median household income on the reservation was $23,679 in the 2000 Census, when it was $41,994 nationwide. Federal funds will enable tribal communities so that they can work with renewable energy industry. The emerging emphasis in Indian Country is on sustainable development, improvements in daily living waste management, fuel feedstock farming, solid land use, and renewable energy projects.

**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
Infrastructure Availability / Transportation Access
Idle/Marginal Land to grow Fuel Crop (Optional)

An Indian reservation which is prime for a One World Clean Energy (Patented) Integrated Biorefinery must be able to support the use of 35 million gallons of gray water or 30 million gallons potable water annually. Access to natural gas pipe line capable of accepting "input" as well as supplying gas is required. The selected on-reservation site must be near a high voltage electricity sub-station. Major road access able to support an average of 40 tractor trailer deliveries daily is required. 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. An agriculture supply chain and complementing industry base within a 75-mile radius is desirable. 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 Best Tribal Answer for Build, Own, and Operating Renewable Energy Production at the Reservation: The One World Clean Energy (Patented) Integrated Biorefinery***
America's tribal lands enjoy abundant renewable energy resources. Development of these resources can meet several needs, including rural electrification, economic development, and compatibility with a deeply held commitment to balance relationships among human beings and the natural world. While renewable energy development can gain from appropriate federal and state action, there remain many measures that tribes can undertake for themselves.

The One World Clean Energy (OWCE) model for an **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 Indian reservation 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 the tribe's 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 Indian tribe will succeed beyond savings that simply pay for the project….it could produce budgetary revenue for the reservation and much needed jobs!

***Benefits of a Renewable Integrated BioRefinery: Energy Security and Job Creation on the Indian Reservation***
Tribal governments and their communities themselves must improve energy efficiency and promote renewable energy development in their homes and on their lands.

They can use their unique sovereign power to build green power. Chairman Rick Hill of Oneida Tribe of Wisconsin said last year, "We have more than a vested interest in keeping green jobs here – Indian nations are not going anywhere."

**Funding**

The Tribal Energy Program under the Department of Energy's (DOE's) Office of Energy Efficiency and Renewable Energy (www.eere.energy.gov/tribalenergy) provides financial and technical assistance to tribes for feasibility studies, and shares the cost of implementing sustainable renewable energy installations on tribal lands. The program also offers assistance for tribes to take the initial steps toward development including strategic planning, energy options analysis, human capacity building, and organizational development. Over the last two years, DOE has funded energy projects.

**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**

***Return-On-Investment***

Many tribes are exploring clean energy development. Those that join this growing group will find that clean energy brings the same gains in Indian Country as it does elsewhere in America: local economic development, production of green electricity as a salable product, retention of energy revenues in the community, protection of the local and global environment, and the assumption of community responsibility for environmental stewardship.

1. ***Renewable Energy Production through the OWCE Model fulfills on the Visions of Local Economies in Indian Country.*** Federal studies have shown tribes to have some of the most significant wind and solar resources in the country. Wind generation on tribal lands alone was estimated at 14 percent of the total U.S. energy production in 2007, while the solar electricity potential was estimated at 4.5 times the annual total electricity needs of the U.S., according to the U.S. Department of Energy. Tribal lands are also known to contain significant geothermal resources.
2. ***Securing the Protection of Local and Global Environments.*** Through OWCE, potential local and regional markets for biodiesel will be assessed and market access issues, including regulatory requirements will be identified and addressed. Revenue from renewables is a viable alternative to joblessness and poor land use to waste management.
3. ***Assuming Community Responsibility for Environmental Stewardship.*** The mission of protecting Mother Earth has long been a part of the Indian culture, and through using technologies available today, waste and feedstock within the area can be turned into resources that provide energy-on-demand in the Indian communities and supporting lands.

***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.