

NEW BUSINESS MODEL: TRIBAL, PRIVATE SECTOR, AND OTHER PARTNERSHIPS TO SUPPORT BIOMASS ENERGY PRODUCTION

Community Energy Systems, LLC

What is the Idea?

Community Energy Systems, LLC, (CES) is a biomass energy project developer specializing in biomass energy projects in the Western U.S. CES's mission is to develop ecologically-sustainable, community-based biomass solutions that build energy self-reliance for communities, Tribes, and businesses. CES employs a partnering strategy that grows the existing capacity of project partners to maximize the potential for financial returns, asset ownership, and ecological benefit for project participants, stakeholders and their surrounding environment.¹

Partnerships between Tribes and energy development entrepreneurs are a key for bringing needed investment capital and technology to remote and capital-limited rural and Tribal communities. Energy Service Companies (ESCO) are increasingly moving into energy production and delivery applications, in addition to implementing their traditional energy efficiency efforts with public and/or commercial institutions. ESCOs are interested in partnering with Tribes and rural communities as these communities potentially have long-term access (≥ 10 years) to sustainably-managed forests and other biomass resources at the scale the ESCO needs to reduce risk and justify significant investments.

A major feature of interest in the ESCO model is the capacity to offer clients the ability to have energy efficiency or delivery benefits with no up-front investment by the client. Rather, ESCOs are able to cover all up-front development costs through using long-term energy service contracts with the client as collateral for these initial capital investments. This is particularly critical in rural or Tribal communities, given the shortage of available up-front capital.²

CES and its partners are exploring a new application of the ESCO model in which the ESCO agrees to structure the contract relationship in ways that build local capacity for long-term energy asset management and ownership. Similar to casino management contracts, these new model contracts stipulate the provision of capacity building and asset transfer to

the Tribe over periods of seven to 10 years — potentially earlier if the Tribe demonstrates certain agreed upon performance thresholds. CES (or the ESCO) will maintain operational oversight until the Tribe is ready to take them over.

This arrangement offers benefits to the ESCO, which enters into long-term contracts based on a secure supply of the natural resource, enabling it to secure financing. For the Tribe (or a rural community institution), the arrangement allows it to gain access to capital improvements, pay less for energy, and ultimately build the infrastructure and capacity to develop, manage, and own the energy resources.

CES, Siemens and other partners are exploring this type of business model in Ramah Navajo, South of Grants Pass, New Mexico. The Tribe has 40,000 acres of forests, mostly pinon and juniper, which have low market values but high BTU values. They have completed a forest management plan. Most Tribal institutions and community members use propane for heating — the most expensive heating fuel. Together, CES and Siemens will complete an assessment of energy efficiency and a heating load assessment of the facilities for biomass conversion to heat housing, schools, and possibly other public buildings. If the assessment and balance sheet look favorable, which is likely, the Tribe will be able to find a profitable use for its currently low-value trees, create much needed jobs, and save money that can go into sustainable forest management and social programs, all while building capacity and ultimately ownership over energy production.

CES is also working with the Bureau of Indian Affairs (BIA)-run Southwest Indian Polytechnic Institute in Albuquerque, New Mexico. The Institute used to serve as the boiler certification program for the BIA. It will be able to easily convert its program to operational training for biomass heating plants. In addition, CES is working closely with the Biomass Energy Resource Center and the BIA to prepare assessments for all major BIA facilities around the Southwest to determine their potential for utilization of biomass energy.

¹ This Profile draws on information from the CES website, the paper, "Capacity Building for Energy Project Development, Management and Ownership in Rural and Tribal Communities," by Brett KenCairn, Principal, Community Energy Systems (2007), and personal communications with Brett KenCairn.

² For example, a school district is already paying \$120,000/year in energy costs. An ESCO partners with the district to conduct an assessment and finds that — with conversion of existing facilities — a biomass facility can be installed, resulting in annual savings of \$40,000. The ESCO and school district sign a 10-year contract for the ESCO to install the new facilities and provide energy services for \$100,000. This rate, adjusted accordingly over the life of the contract, includes both the cost of providing services and the cost of improvements, amortized over 10 years.

BIA is also discussing offering a guaranteed loan program.

What is the Opportunity?

Tribes and rural communities have repeatedly experienced the boom and bust of resource extraction, as outside interests with the required capital, technology, management expertise, and infrastructure exploited the natural resources and captured value-adding and other production opportunities. These are often new types of energy projects, and there is little pre-existing capacity within Tribes and rural communities to develop and manage them. By brokering partnerships with key technical service providers who have an interest in accessing new markets, CES is providing appropriate scale technology, offering effective and timely technical assistance and training, building capacity, and developing new business models to ensure that Tribes and rural communities can assess, design, develop, manage, and own their energy resources and production assets, rather than seeing them exported once again from their communities.

What is Revolutionary from Current Practice?

While the contracts and financial arrangements between ESCOs and the Tribes are similar to how many capital intensive projects are structured in the private sector, the revolution is in adding a capacity-building provision to these contracts, creating jobs, and fostering ownership within

communities that most often have experienced significant economic dislocations following the decline in the previous cycle of resource extraction and use activities. Rather than selling their assets for the lowest price, Tribes are leveraging their assets to compel capacity building and ultimately ownership of energy production. Furthermore, in this case, the BIA is seen as an asset and a partner, able to provide market opportunities for Tribes.

What is the Promise for Success?

With rising energy costs, there is no doubt that biomass energy production will be a critical option. When it uses appropriate technologies and is community-scaled, there is a greater likelihood that the resource will be used at sustainable levels, rather than over-exploited to feed a regional or national demand. The requirement for sustainable forest management plans will help guard against over exploitation.

Tribes have extensive experience in developing gaming facilities through the use of joint venture or management contracts with outside firms. A substantial body of experience and knowledge has been accumulated in how to develop business development partnerships between Tribal and non-Tribal entities, which will be critical in developing a similar approach to renewable energy resource development. There is no question that innovations are more likely to succeed when local capacity is created to develop and maintain them.