

**Mesa Reduction Engineering & Processing, Inc.**  
**BioEnergy Internship, Summer 2013**

Mesa Reduction Engineering & Processing, Inc. is considering an intern position to support various bioenergy project activities.

**Focus of Internship**

The Intern will primarily support Mesa's activities related to the New York Biomass Energy Alliance (NYBEA) and of NYBEA working groups, including, but not limited to: the branding of the Bioenergy Industry; refining the role of bioenergy in New York's Renewable Energy Initiatives; and, forwarding the equitable treatment of bioenergy as a local source of renewable energy within the State; as well as, other Alliance activities as needed.

Intern responsibilities may also include analyzing bioenergy industries including combustion, gasification, pyrolysis, and fermentation technologies that utilize biomass feedstock. Feedstock to be evaluated includes dedicated energy crops, forestry resources, agricultural residues, and various waste streams. This will include market research for each industry that utilized biomass, end products that are produced, and identifying technology trends where biomass will be used in the future. The work will also include looking at existing industries that the company serves, doing case studies on individual biomass projects, looking at the life cycle energy balance of biomass production, harvesting, delivery and processing into various end products, and assisting in developing a web based portal for the information developed during the internship to be displayed.

The research component of the work can be conducted from any location. The project specific activities will occur mainly in the Syracuse area with limited day travel to biomass harvesting and processing sites. The intern will be expected to provide their own computer and be knowledgeable with Microsoft based software programs, with mechanical software (AutoCAD/Solid Works) expertise a plus. High speed internet connection is necessary.

**Qualifications**

- Candidates should possess excellent research skills, and be able to both provide examples of analysis that she or he has completed independently and discuss her or his methodology and results as part of our selection process.
- Work experience demonstrating the ability to manage complex tasks with direction only in relation to general approaches and desired outcomes.
- Background in economics is a large plus. Background in energy policy, forestry, and/or agriculture will be helpful, but not essential.
- If the candidate has both some web development experience and the confidence to tackle complex tasks in this area, this will considerably broaden both the ways that the candidate can help the Alliance in its ongoing work, and the value of the internship experience.
- Experience with and access to ArcGIS is desirable, but not essential.

- The work can be completed from any location, with regular meetings with Alliance leaders and staff in the Syracuse area. The intern will be expected to use her or his own computer equipment (with basic software like Word and Excel loaded), provide her or his own transportation, and to have an internet connection at a DSL speed or higher.
- Candidates will be required to submit weekly written progress reports.

#### **About Mesa Reduction Engineering & Processing, Inc.**

Mesa Reduction Engineering & Processing is a full-service bioenergy company that provides solutions for renewable energy companies, government laboratories, universities, and other entities who utilize biomass. Mesa provides consulting and processing services to organizations interested in developing renewable energy projects. Services include biomass test facilities, feasibility evaluations and resource assessments; permit testing development; emissions reduction programs; and supply services. Mesa has developed patented size reduction, harvesting, conveying, and storage systems to handle a wide range of biomass feedstock materials for use in power generation, combined heat and power, biofuel conversion, and numerous fiber markets.

#### **About New York Biomass Energy Alliance**

The New York Biomass Energy Alliance is a coalition of individuals, businesses, and organizations working together to enhance public support and understanding of the benefits of using sustainably produced and harvested biomass as a source of renewable energy in the state and the region. The Alliance works to strengthen cooperation and communication within the family of enterprises and organizations committed to biomass energy solutions, including biomass producers, harvesting and logistics companies, research institutions, and fuel and energy production enterprises. The Alliance uses some office and other infrastructure facilities of an allied organization, but operates largely on its own through the contributed time of its business members and part-time staff. Candidates are encouraged to visit the Alliance website [www.newyorkbiomass.org](http://www.newyorkbiomass.org) to learn more about the organization and its goals.