

Please provide a 1-3 sentence description of your organization.

North Shore Energy Technologies (NSET) is engaged in the development of biorefinery projects which will use state of the art gasification and catalytic technologies to convert wood waste and other biomass resources into liquid fuels and chemicals such as Methanol.

Relative to bioenergy, what are your top problems and which research products (or researchable questions to which you need answers) would help you solve these problems?

One of the biggest challenges to our current project efforts is the commercial acceptance of methanol as a viable bio based energy product. The current focus is so dominated by ethanol which maybe a very shortsighted mistake. Solid and none hype based analysis of possibilities for a wide variety of energy products including Methanol and DME is needed.

Although the economics are quite good for existing technology, continued work on improving conversion efficiencies in both syngas generation and catalytic conversion of syngas technologies is needed.

What do you think ARS's top bioenergy research priorities should be (no more than five, please)?

- ◆ Energy crop production systems including planting growing and harvesting which will yield fast growing, high energy, low moisture crops which have a positive energy balance. Corn is not it.
- ◆ Improved selectivity, yield and economics of biological based systems for alcohol production from syngas. (i.e. syngas fermentation)
- ◆ Improvements in production systems of aquatic biomass. Particularly on high energy content, low energy moisture reduction techniques, and non invasive harvesting techniques.

Additional customer service questions:

What might ARS do to serve its customers/stakeholders better?

I think the current effort at receiving ideas/input from stakeholders on the research objectives and priorities is very important. I believe that there is a current tendency in government sponsored research to focus our scientific efforts on political objectives almost in spite of the fundamental underlying science.

What, in particular, about ARS would lead you to recommend ARS to someone else looking for similar research products?

The ARS has an outstanding track record of important research achievements.