Current Projects and Accomplishments:

The Sustainable Energy Research Center (SERC) recognizes that proposed research solutions for transportation fuels need to have accurate projections of the costs to the consumer. For this reason, SERC has created an Economic and Policy Analysis research team to quantify the economic feasibility of various options. This group of researchers works closely with the other SERC research teams to guarantee practical solutions to our nation’s growing need for sustainable energy resources.

In the past two years, the Economic and Policy Analysis team has worked with the state of Oklahoma to examine the costs to harvest switchgrass and giant miscanthus and to use it as a means to create ethanol. Their research included analyzing the cost to build lignocellulosic refineries and finding the yield rates of the biomass. In their studies, researchers found that lignocellulosic refineries cost nearly twice the amount of normal ethanol plants. Additionally, researchers looked at nine Mississippi counties and the costs to transfer chicken litter to these lignocellulosic refineries.

Economics researchers conducted a nationwide survey to determine consumers’ reactions to the introduction of E-85 and E-10 ethanol to the marketplace. The survey revealed that consumers are willing to pay more for these types of ethanol, due in part to their environmental benefits. In addition to all of these findings, economists have just recently completed a comprehensive literature review including numerous studies of economic policy that are related to the development of green products and biofuels.

Future Projects:

In the coming year, researchers will be working with the bio-oil and synthesis gas groups to perform a similar type of study. SERC also plans to focus on sweet sorghum as a low-cost alternative to corn in the making of ethanol.