CASE STUDY: Increasing the Use of Sustainable Wood Energy

Opportunity
In 2007, the USDA Forest Service selected Yellow Wood Associates in partnership with Richmond Energy Associates to work throughout the Forest Service’s 20-state Northeastern Region with state and local partners to increase the use of sustainable wood energy. By increasing the use of wood energy, this area would be able to increase the use of renewable energy, reduce the creation of greenhouse gases, improve markets for low quality and underutilized wood, and improve forest health across the region. The Forest Service identified a need for independent, third party biomass feasibility analyses to help agencies evaluate how wood energy could meet their needs.

Approach
Yellow Wood Associates, working with technical consultant, Richmond Energy Associates, developed a 9-step process to: engage and support local biomass champions; raise awareness of biomass at a community/regional level; identify good candidate sites for biomass energy; and provide independent analysis of cost savings and benefits for agencies, communities and businesses interested in the potential of wood energy. Yellow Wood delivered biomass pre-feasibility assessments specifically tailored to individual facilities (or districts) outlining whether or not a biomass heating system made sense for the facility from a practical and economic perspective. This assessment included site-specific fuel savings projections based on historic fuel consumption, recommendations on technology and fuels and provided facility decision-makers suggestions and recommendations for next steps, as well as a binder of resources to assist with implementation.

Outcome
Yellow Wood analyzed 131 applications for biomass pre-feasibility studies from eleven northeastern states and provided analyses evaluating biomass energy for 77 facilities. The analyses projected an average fuel savings of $76,000 annually (realized by replacing fossil fuels with biomass) ranging from a minimum of $1,500 to $900,000 a year. When the project ended in 2012, seven of these facilities had already installed biomass heating systems, and thirteen were actively pursuing biomass based on the recommendations made in the report they received.

Client
The USDA Forest Service, Wood Education Resource Center (www.na.fs.fed.us/werc/) facilitates interaction and information exchange with the forest products industry to enhance opportunities for sustained forest products production in the eastern hardwood forest region of the United States.