

Envisioning Wood Biomass Based Biorefineries and Integration Into Existing Industries

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Abstract

This presentation encompasses wood biomass based Biorefinery scenarios. Three main scenarios are presented with some special case examples included. They are: 1) Retrofit to an existing pulp mill that continues to operate; 2) A Biorefinery front end for woody CHP applications, perhaps on site with a low steam pressure for industries such as non-integrated paper mills or sawmills; and 3) A greenfield Biorefinery with extensive conversion to material products and heat recovery for process use. The expected impact of potential raw materials, ranging from commercial forest grown pulpwood and sawmill residuals to purpose grown biomass fuels, forest thinning materials and agricultural crop residues, is discussed for each scenario. Putative economics are proposed where sufficient data exists.