

# U. S. Department of Energy – Biomass 2011

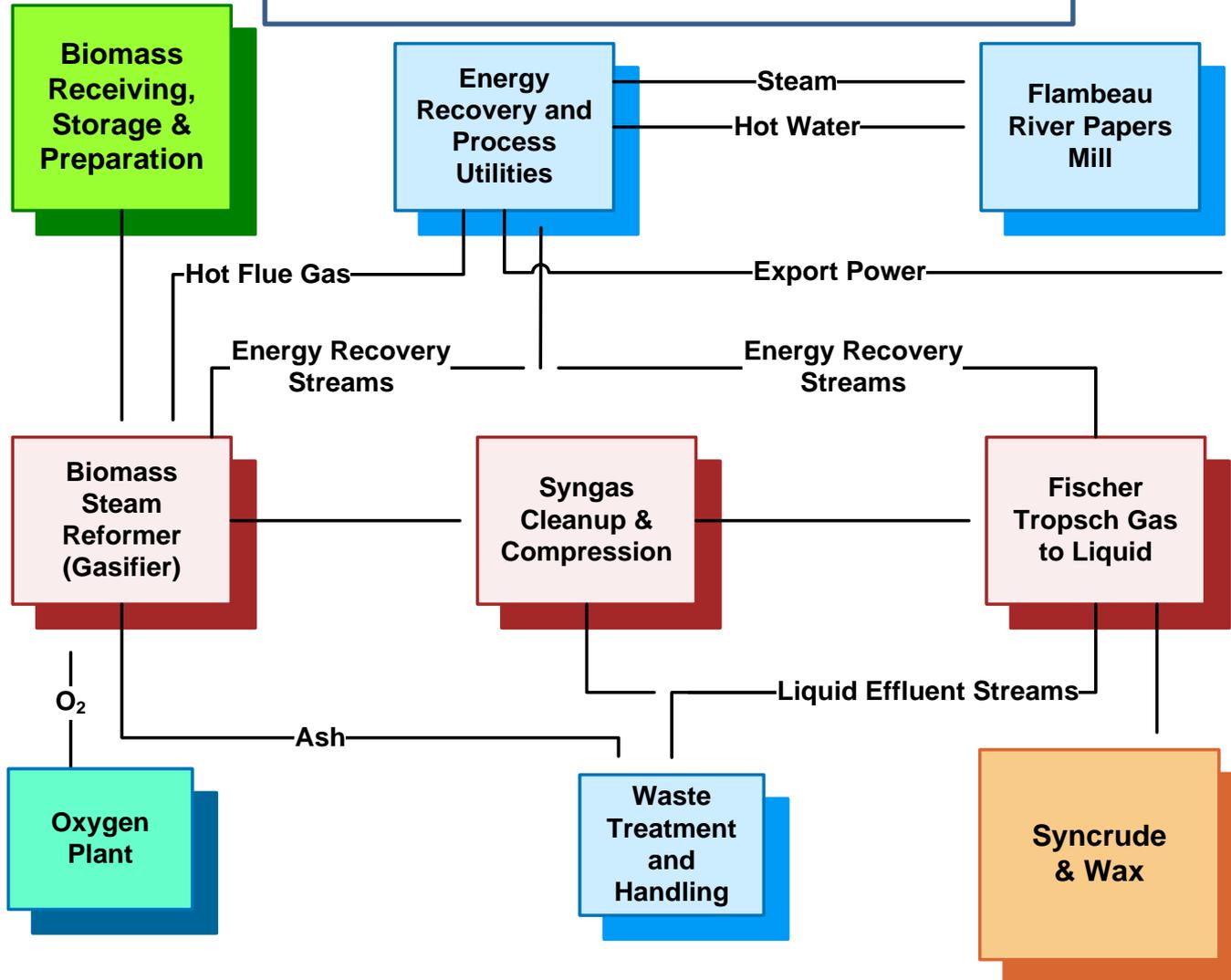
## Competing Uses for a Constrained Feedstock Supply: Risks and Opportunities

William (Butch) Johnson CEO

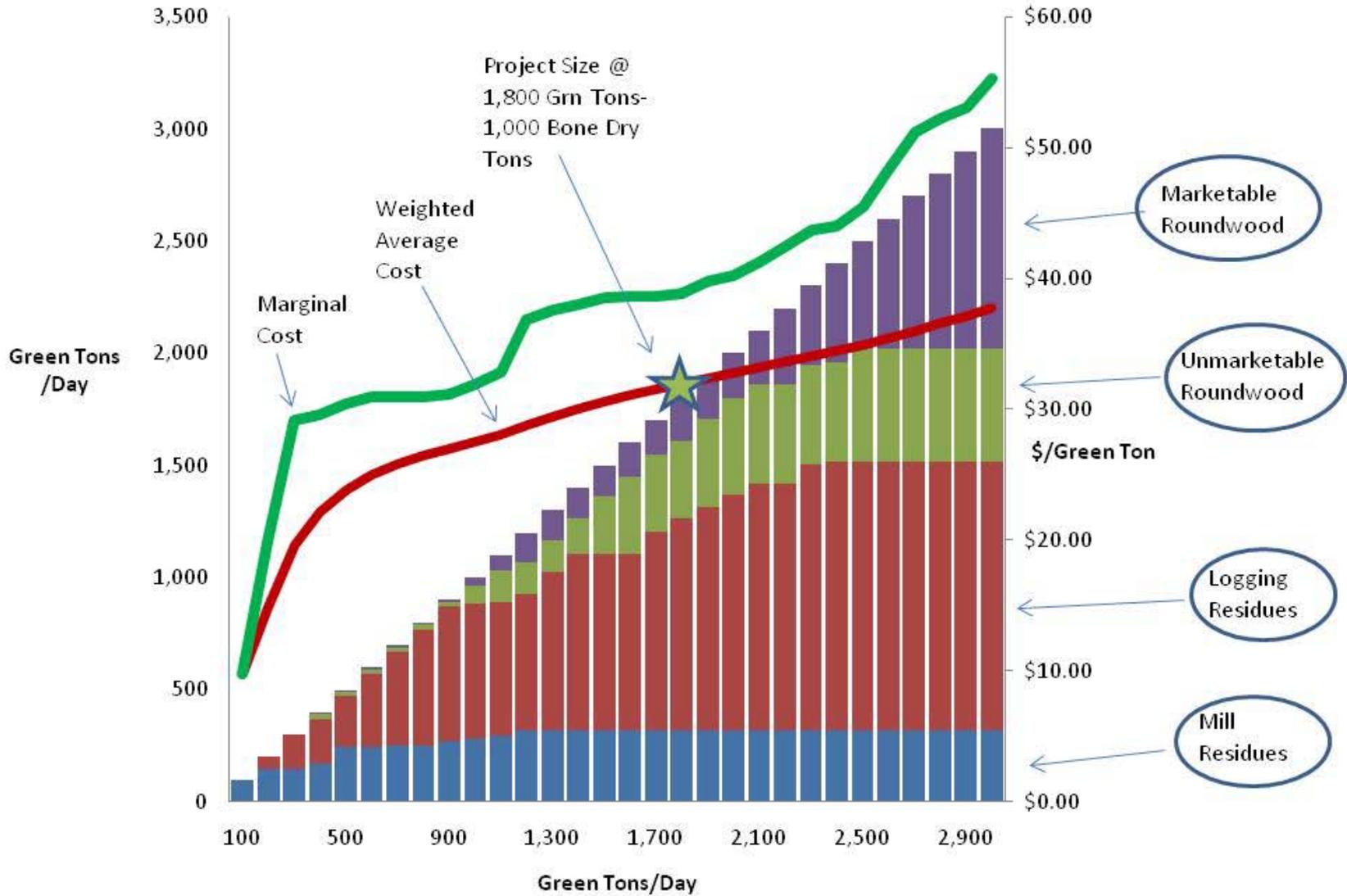


July 26, 2011

# Integrating a Biorefinery with an Existing Paper Mill



# Change in Sources of Raw Material and Costs as Plant Size Increases



# **Boiler MACT**

## **(Maximum Achievable Control Technology)**

- **Because of the fines burner that helped raise the thermal efficiency of the project in the innovative superheated steam drying system, the fines burner process was subject to Boiler MACT because it fell into the non-contact process heater category.**
- **That process was then required to meet a very low particulate matter limit of 0.001#/mil BTU.**
- **It also would be subject to a very low dioxin limit that had flawed data used to set the limit.**
- **The pollution control required to ensure the particulate matter limit would be met was two wet electrostatic precipitators in series at a cost that took away the small margin that this project had.**
- **It is frustrating that the benefits of choosing the fines burner are ignored by rules such as Boiler MACT.**
- **It is frustrating that this rule pushes companies towards natural gas.**

# **The US Paper Industry has practiced sustainability for more than 100 years**

- With the US industry declining, more sustainably grown biomass will become available
- Infrastructure to harvest, size and transport woody-biomass is already in place
- Best use of wood should include a calculation of “value added” and jobs created and maintained

# **Flambeau River Papers LLC and Flambeau River BioFuels Inc.'s woody- biomass supplier Certifications**

- SFI Chain of Custody Standard: Certificate # CERT-0031938
- SFI Wood Procurement and Land Base Management: Certificate # CERT-0031939
- Programme for the Endorsement of Forest Certification (PEFC) Chain of Custody Certificate: # CERT-0032748
- FSC Chain of Custody Certificate: # SW-CoC-002249
- FSC Controlled Wood Certificate: # SW-CQ-002249