

# Biomass Fuels

A Suppliers Perspective

## Definition of Biomass

- ▶ plant materials and animal waste used as a source of fuel

# Why Biomass

- ▶ Green, Renewable Energy source, considered carbon neutral
- ▶ Local Labor and resource, keeps money in the direct vicinity of the Biomass Consumer
- ▶ Uses readily available resource, possibly under utilized
- ▶ \$\$\$ Economical Fuel Source \$\$\$

## What should come first? Combustor or Fuel?



- ▶ Should fuel sources be identified and combustion equipment specified that can burn it?
- OR
- ▶ Should combustion equipment be identified and then a fuel source identified that will burn in it?

# Biomass Fuel Sources in Maryland

## Urban Wood



# Timber Harvest



# Forest Improvement



## Waste Wood



## Sawmill By Products



# What Types Available?

## Whole Tree Chips



# Whole Tree Chips



# Hogged Fuel



# Hogged Wood



# Sawdust





# Further Processed

## Drying



# Wood Pellets



# Wood Briquettes



# Supply Side concerns

## Low Volume per site



# Investment High



# Too Dirty



## Seasonal Forest Access



## Sufficient Project Scale



# What Should Buyer Know about Fuel?

- Availability
- Particle Size Range
- Ash Content %
- BTU Range
- Moisture Content
- Seasonality
- Consistency
- Volume available
- Competing uses
- \$\$ COST \$\$

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Cost Per  
1 MM/BTU

# What Should Buyer Know about Seller?

- Reputation
- Reliability
- Experience
- Infrastructure
- Quality Control Program
- Alternatives (Plan B)
- Inventories
- Ability to Measure
- Financial abilities

