2010 Conference
Savannah, GA
Themes

• Waste
• Opportunity Fuels
• Holy Water
Opportunity Fuels
(and the “new” mob)
Holy Water
BALCONES FUEL TECHNOLOGY

• Division of Balcones Resources
• Operates 3 recycling plants and 2 shredding plants – Dallas, Austin, Little Rock
• Largest independent wastepaper supplier in the southwest
• We do not own a landfill!!!
• Kimberly-Clark “Vision 2000”
• KC Manufacturing Plants to be “landfill free”
• Now “Vision 2010”
• Balcones handles all to the post-industrial waste from 4 production facilities (diapers, baby-wipes and fem care)
• Reuse (pallets, rejected baby-wipes for diary towels)
• Recycling (cardboard, office paper, plastics)
• KC formed the basis for our Alternative fuel business
Fuel Customer?

- We’re in the paper business
- Paper mills consume huge amounts of bio-mass
- A fuel cube is identical to a wood chip in size and configuration
- Handled with existing boiler feed systems
- BTU value 2.5+ times the value of wood
• Domtar consumes 120 truckloads of wood per day
• Natural gas used as a supplement – especially when the wood is wet.
BALCONES FUEL TECHNOLOGY

Today

• Kimberly-Clark
• 3M
• PepsiCo/Frito-Lay
• Toyota
• Wal-Mart
• Proctor & Gamble

Non-Recyclable Industrial Co-Products

Zero Waste – Zero Landfill Initiatives
AGRICULTURAL WASTE FEEDSTOCK COLLECTION PROGRAM
SPIRIT LAKE FARM

- 5000 acres farmed
- Professional farm management practices
- National farm association affiliation
- Latest in harvesting technology
SPIRIT LAKE FARM
Don’t Forget the Holy Water!
AG WASTE-BASED FUEL SUPPLY CHAIN CHALLENGES

Who?
- Farms

Flow:
1. Collection
2. Consolidation
3. Storage
4. Delivery
5. Biomass Conversion
6. Fuel or Power
Poultry Litter
Poultry Litter Baler
Opportunity Fuels
Biomass

- Rice and Wheat Straw
- Rice Hulls
- Chicken Litter
- Cotton Gin Waste
- Timbering slash
- Power Line Tree Trimming
- Zoo Doo
- WWTP sludge
- Paper Mill sludge
Why the Effort?

Leading investor sees oil price hitting $100
But price of crude unlikely to reach level in '07 says T. Boone Pickens

REUTERS
Updated: 1:50 p.m. CT Sept 19, 2007
Why the Effort?

- $80??? per barrel oil is a driver
- We need North American based energy solutions
- Waste should a primary feedstock
- Feedstocks that are non-crop based – less cost pressure
- Eligible for government incentives
- Utilize our existing fuel plant to sustain trials
The Ultimate Goal

- Co-Fire (coal or wood)
- Modular co-generation systems
- Gasification
- Pyrolysis
- Dry Fermentation
Sort industrial Co-Product
Labels, Carpet, Packaging, Film

Biomass
C&D Wood, Pallets, Tree Trimmings, Sludge, Organics Collection

Recycling & Fuel Production
Recycle, Blend, Shred, Dry, Pelletize

Mulch & Composting Dry Fermentation
Mulch, Compost, Bio-Gas

Off-Site Biomass Boiler Fuel
PECO

Pyrolysis Unit
Char, Oil, Gas

Recycling & Waste
Power, Steam

Co-Gen Operation
Power, Steam, Hot Water

Government Offices

Retail

Warehouse Operations

Fish Farming Operation

Greenhouse Operation

Commissary Operation

WWTP Drying

PECO Grid

Phase 1
Phase 2
Phase 3
Phase 4
Phase 5
Other Stuff (waste)
Non-Biomass Opportunity Fuels
A Sustainable Recipe

- Carpet trim and post consumer carpet
- Obsolete Software
- Non-recyclable packaging waste
- MRF (material recovery facility) waste
- Food packaging waste
- Pressure sensitive label matrix
- Pesticide Packaging and Ag Plastics
- Ultimately - MSW
Feedstock Preparation
Biomass and Non-Biomass

• Collection & Harvesting
• Consolidation & Densification - baling
• Shipping and Storage
• Sorting – Blending – the RECIPE
• Drying
• Sizing
• Pelletizing/Cubing/Fluff
• Shipping to the final customer
Engineered Fuels

- BTU’s
- Moisture
- Non-Chlorinated
- Low Sulfur
- Appropriate Size/Configuration
- Consistency – year round
Let’s Recap
Highest and Best Use of Material

*Recycling - The Foundation of our Operations*
True Meaning of Sustainability

Social

Bearable

Equitable

Sustainable

Viable

Environment

Economic
Thank You

Anybody Got a Problem?