Stewardship And Fuel Supply For A 100 Mega-Watt Power Plant

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Gainesville Regional Utilities

• Municipally Owned And Operated
• Full Service: Electric: Coal, Gas, Oil, Nuclear and LFGTE*
  Natural Gas
  Water
  Wastewater
  Telecommunications
  Chilled Water
• AA Rated By Moody’s & Standard and Poor

* Landfill gas to energy
The Gainesville Community And GRU

- GRU Firsts:
  - “In Home” Computer Energy Audit
  - Green Power Sales
  - Zero Discharge Steam Power Plant

- Lowest Kilowatt-hour Consumption Per Residential Customer In Florida
  - Strong Conservation Ethic
  - Promote Natural Gas
  - Tree City USA Award
Our Integrated Resource Plan

• Conservation Program – Reduce Load Growth By 60%
  – Solar PV Program
  – Rebates
  – Loans
  – Rate Designs

• Need Base Load Capacity For Economic Reasons

• Carbon Management Goals
  – Kyoto Targets

• No Coal, Petroleum Coke Or MSW

• Nuclear?
Biomass Resource Studies

• Forest Products (order of probable amount)
  – Chip & saw, pulp, harvest residues
  – Forest thinnings
  – Urban waste wood
  – Pulp

• Key Issues
  – Competition for fuel
  – Cost drivers

• Four Studies
  – Post & Cunilio
  – Black & Veatch
  – ICF Consulting
  – UF School of Forest Resources
GIS Model Of Competition And Travel Time
RFP Process For Biomass Plant

• Community Concerns
  – Pillaging natural forests
  – Sustainable forestry practices
  – Invasive species

• Two Step Process To Promote Innovation

• Key Evaluation Factors
  – Commitment to sustainability
  – Efficiency
  – Risk management
  – Costs
Description Of Selected Proposal

• Owned And Operated By Nacogdoches Power, LLC
  – On GRU’s site

• Bubbling Bed Boiler, Steam Turbine

• Only NO\textsubscript{X} And Particulate Controls Needed
  – No MSW possible
  – No Coal or Pet Coke possible

• Zero Water Discharge

• 100% Biomass – 1,200,000 Tons/Year!
Promoting Sustainable Forest Management

• Minimum Standards For Fuel Acceptance
  – No stumps, except from urban land clearing
  – No exotic species unless part of forest restoration
  – Nutrient retention on-site
  – Compliance with Division of Forestry best management practices

• Bonus Payment For Participation In Stewardship Certification Program
Stewardship Certification
Program Objective

• To promote the adoption of Forestry Practices that are substantially better for resource sustainability than currently prevailing forest management practices.

• Based on existing certification programs such as:
  – Division of Forestry Stewardship Certification
  – SMART WOOD®
  – Forest Stewardship Council
Requirements For Market Transformation

1. Incentives Go To Those Who Control The Land
   – Growers

• Eligibility Criteria Must Be Clear
• Incentives Must Be Predictable And Reliable
  – Long lead times in forest production

1. City Commission Must Be Able To Make Adjustments Through Time
   – Market changes
   – Raising the bar
Preliminary Program Design

• Incentive
  – $ per ton delivered

• Eligibility Awards
  – Certified under third party stewardship program
  – Incentive level fixed for site over time
  – Paid when delivered
  – Continued certification will be verified

• If Incentive Ever Lowered
  – Incentive awarded stays fixed

• If Incentive Raised
  – Must qualify under “then current” standards
Any Questions?

Thank You!

GRU
More than Energy™