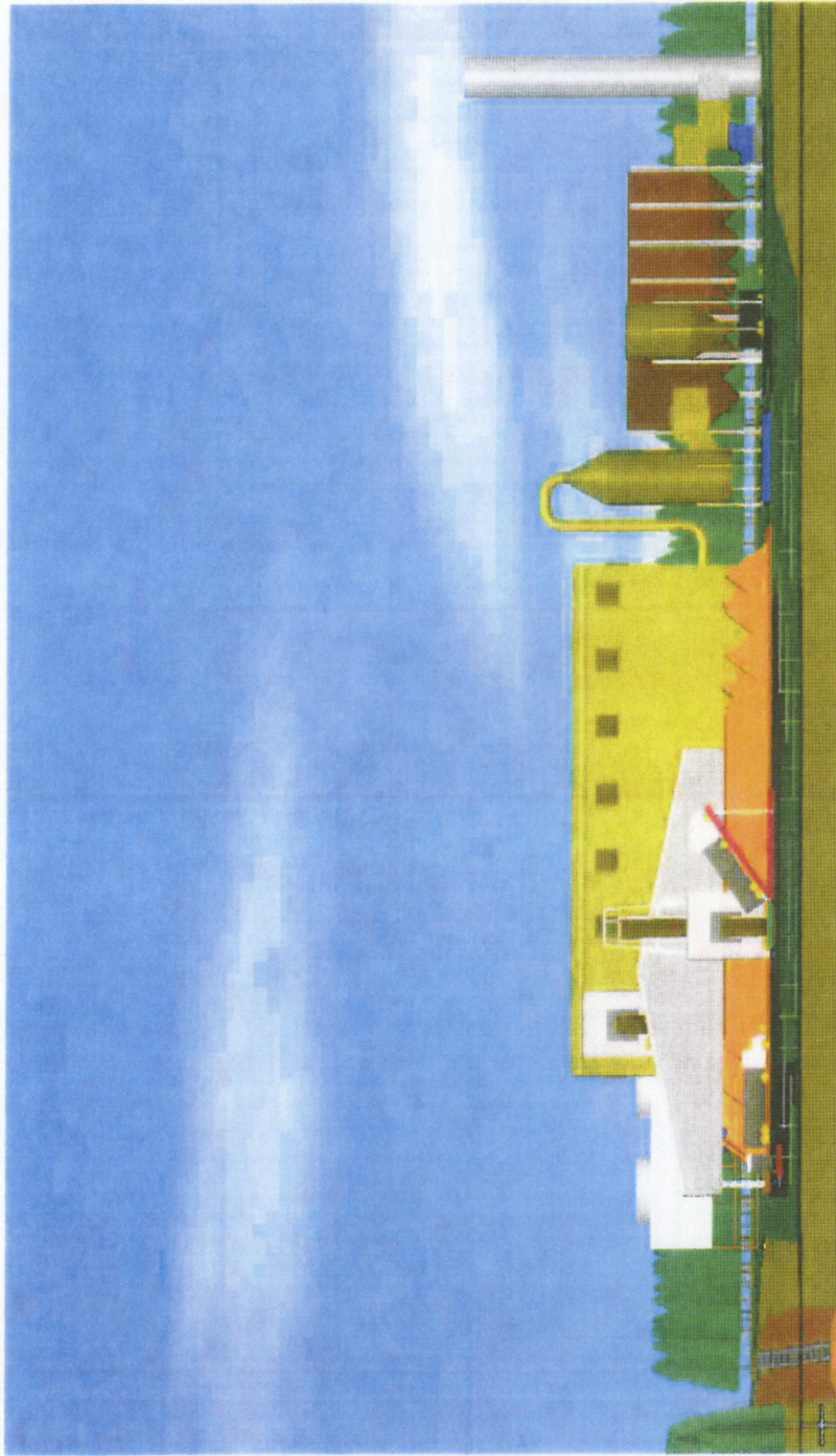
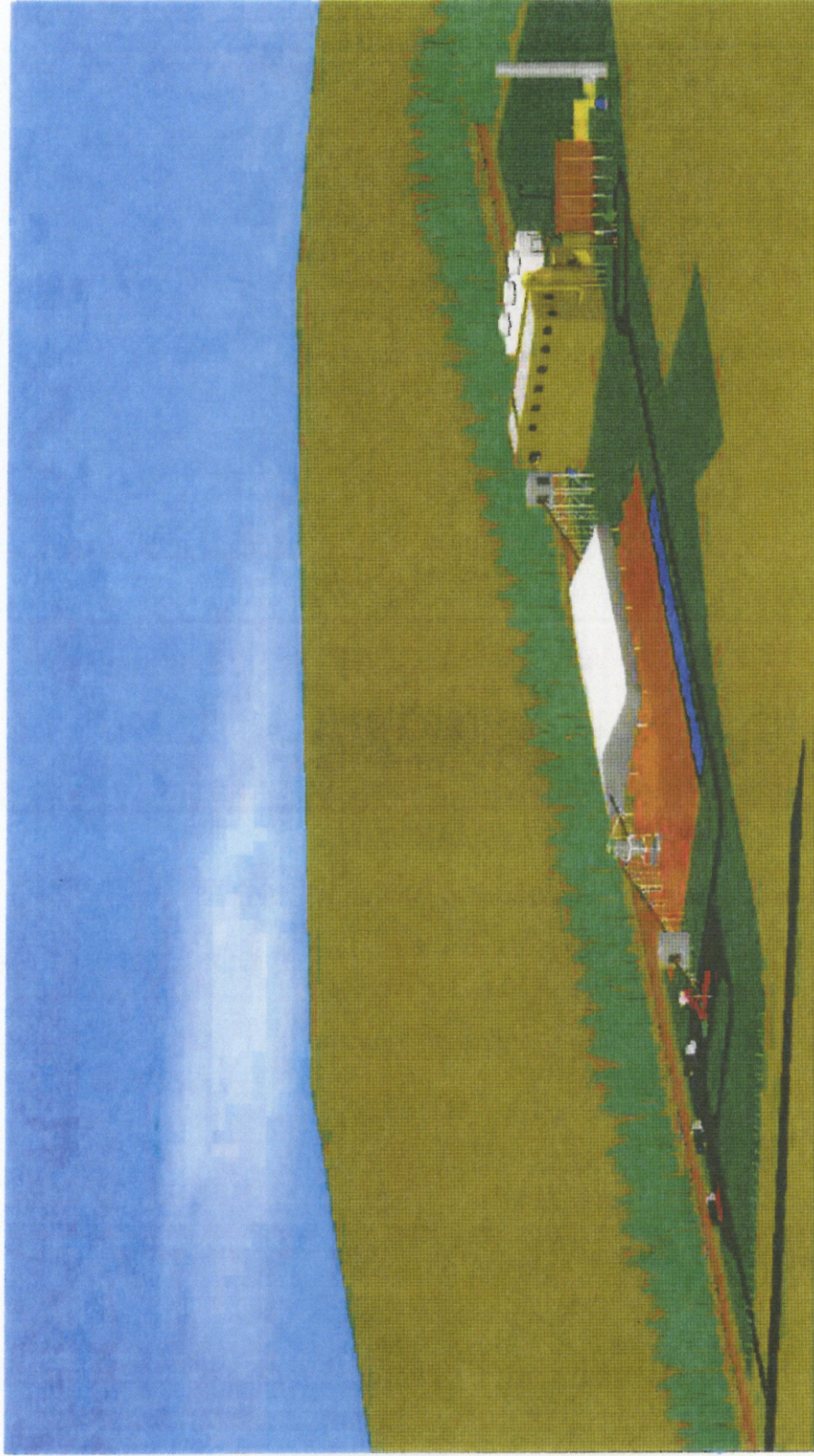


Conceptual Configuration



Conceptual Configuration



Typical Decker Biomass Plant Layout

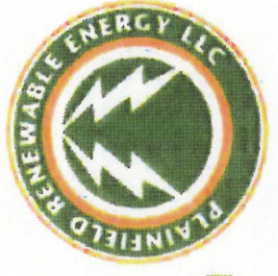


Typical Decker Biomass Plant Layout



Fuel Supply

- *Fueled by biomass/waste wood, including*
 - *Brush, stumps, lumber ends and trimmings*
 - *Wood pallets, bark, wood chips, shavings, slash and other clean wood that are not mixed with other solid wastes*
 - *Sorted, picked and cleaned wood component of construction & demolition debris*
- *All fuel processed at regulated off-site locations to strict specifications for size and quality*



Fuel Supply Integrity

“Belts & Suspenders” approach to ensure clean supply and minimize emissions

1. *Wood fuel is sorted, separated & cleaned off-site*
 - *Fuel supply regulated by CT DEP*
 - *Prohibition against asbestos, etc.*
 - *Regulated Wood Fuel means "processed wood from construction and demolition activities which has been sorted to remove ... substances defined as hazardous..."*
 - *Process includes positive pick system for C&D to segregate wood component, chipping and screening to remove fines*
2. *Stringent supply specifications, sampling, testing and inspection*
3. *State-of-the-Art air quality control equipment*



Local Issues

- *Air*
- *Water*
- *Noise*
- *Traffic*



Air Permitting Overview

- ***Must prove no adverse health impacts***
 - *Technology-based emissions and control standards*
 - *Science-based air quality standards*
 - *Permit denied if any standards not met*
- ***Must demonstrate compliance with:***
 - *Technology requirements*
 - *Connecticut and EPA emission standards*
 - *Connecticut and EPA air quality standards*
 - *Connecticut and EPA hazardous air pollutant standards*
- ***Computer modeling of air quality impacts***
 - *Prove compliance with air quality standards for every hour of 5-year evaluation period*

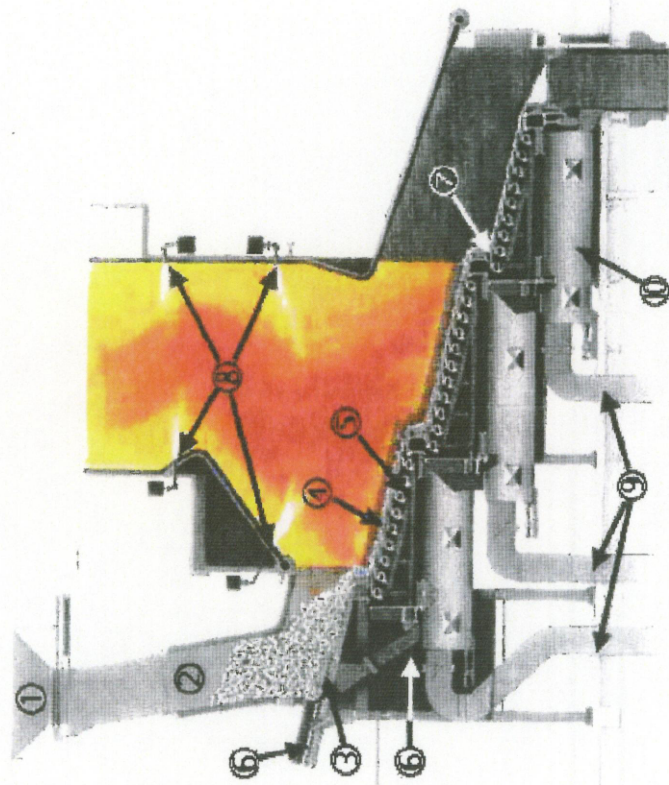
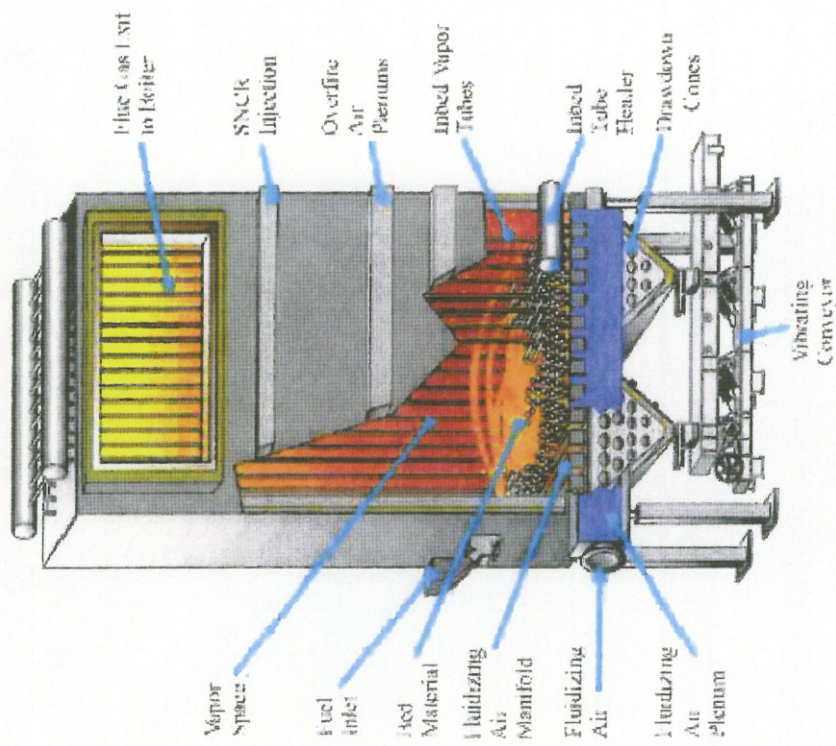


Fluidized Bed Gasification Technology

- ***Accepted as Best Available Control Technology*** by environmental regulatory agencies
- *Inherently lower pollutant producing method of energy generation*
- *Commercially proven technology*



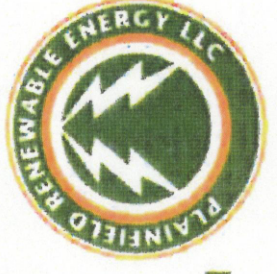
Fluidized Bed vs. Spreader Stoker Technology



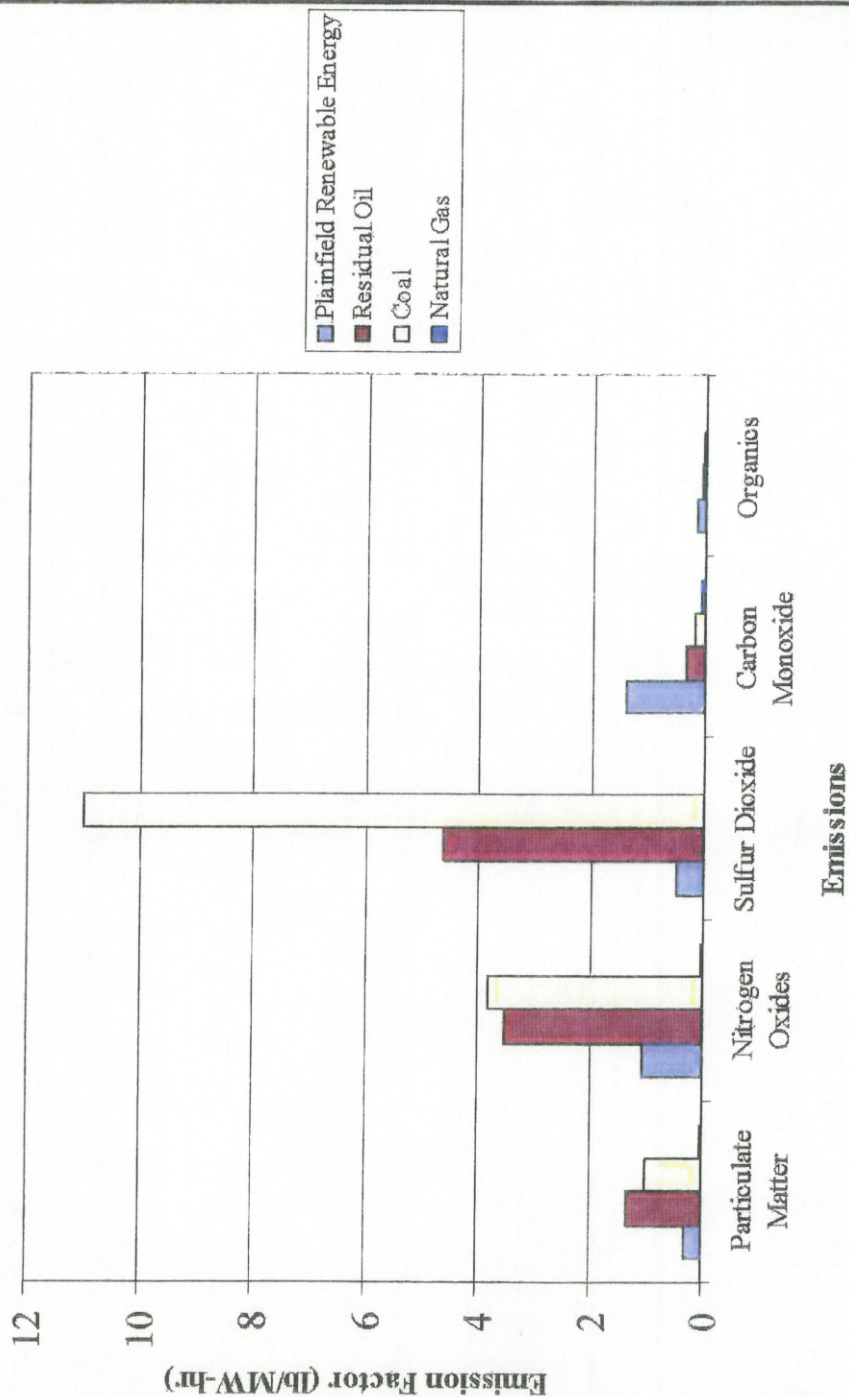
Proposed Additional Environmental Control Technologies

- *Fuel specifications/quality control*
- *Selective non-catalytic reduction*
- *Scrubber*
- *Baghouse*

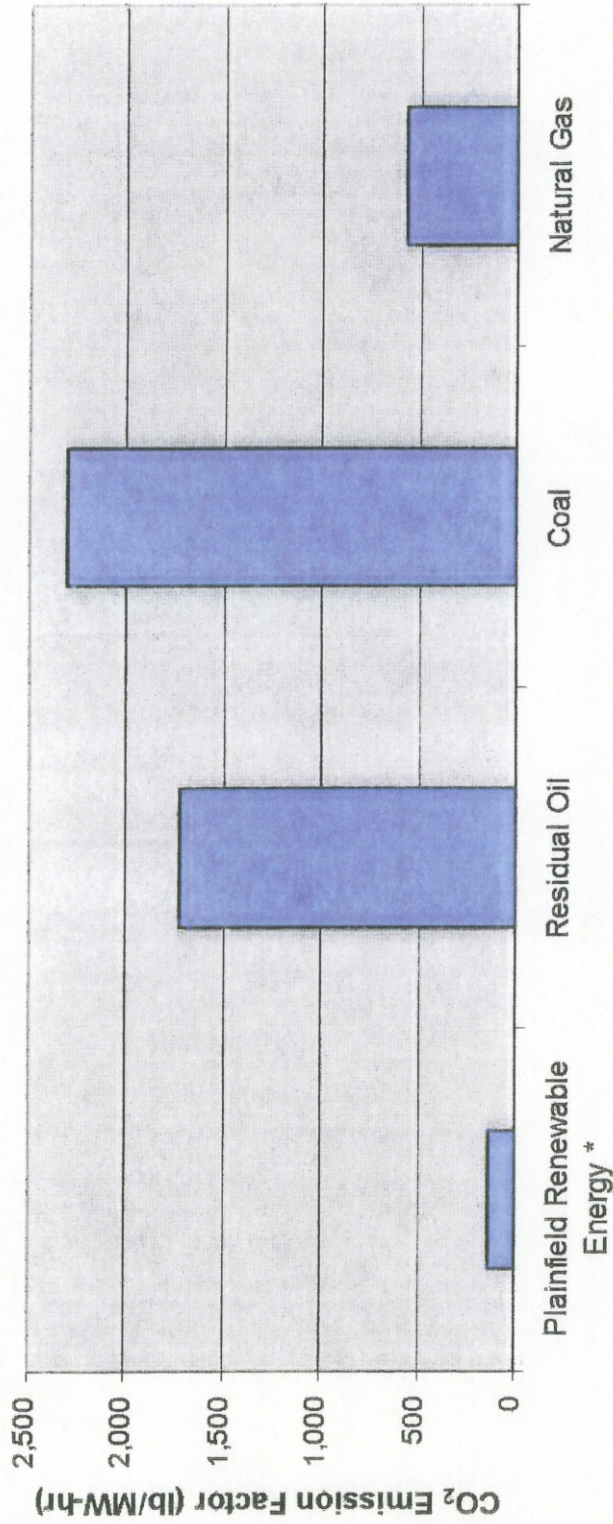
***More air quality controls than any other plant
of its type in U.S.***



Comparison of Plainfield Renewable Energy with Fossil Fuel Power Plants in Connecticut



Comparison of CO₂ (Greenhouse Gas) Emissions from Various Energy Technologies



Fuel/Technology

* CO₂ emitted from wood/biomass energy conversion is generally not counted as greenhouse gas emissions because the majority is considered offset as CO₂-absorbing biomass used as fuel is part of the closed-loop carbon cycle.



Air Permitting Process

- *Application for air permit prepared and submitted to CTDEP*
- *Key analyses and demonstrations:*
 - *Control technology analyses*
 - *Demonstration of compliance with applicable emissions and regulatory standards*
 - *Air quality impact analyses and compliance demonstrations based on computer modeling*
 - *Maximum Allowable Stack Concentration analyses*



Air Permitting Process (cont.)

- *CTDEP permit review process:*
 - *Completeness determination*
 - *Detailed review of emissions and compliance demonstrations (technology, ambient impact analysis, other applicable regulations/standards)*
 - *Tentative determination*
 - *Issue draft permit for public review/comment*
 - *Public hearing process*
 - *Review/comment by EPA, FLM, Affected States*
 - *Issue permit to construct/operate*



Operating Safeguards

- *Continuous emissions and process monitoring*
- *Stack testing*
- *Fuel testing*
- *Fuel supplier approval (inspections/testing)*
- *Continuous Recordkeeping*
- *Quarterly/Semi-Annual/Annual Reporting*
- *Emissions fees*
- *Annual Compliance Certification*
- *CTDEP Inspections*
- *Operating and Maintenance Procedures*
- *NOVs, Orders, penalties for noncompliance*



Water

- *Wells or public water*
 - *Test well drilling timing and protocol*
 - *Permitting process - demonstrate lack of impact to surface waters and the previously contaminated area*



Noise

- *Permit limitation at site boundaries*
- *Use of noise mitigation measures in design*
 - *Natural site buffer*
 - *Enclosed operations*
 - *Equipment placement*
 - *Other measures*



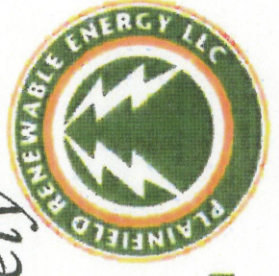
Traffic

- *Mill Brook Road entrance; previously upgraded for high volumes*
 - *0.7 miles from I-395*
- *Estimate approximately 50 fuel trucks per weekday*
 - *Roughly one truck every 10 minutes during business hours*
- *Roads previously upgraded for higher Lowes volume*



Siting Council Process

- *State agency that reviews the location and potential impacts of all electric generating facilities*
 - *knowledgeable about the electric system and environmental matters*
 - *carefully considers input from municipalities and general public*
 - *statewide authority to determine any substantial adverse environmental effect from the project*
- *Public comment session in Plainfield likely*



Town/Region Benefits

- *Significant Property Taxes*
 - *Return of Superfund Site to the Town tax rolls*
- *Well Paying Jobs*
 - *200 Construction Jobs*
 - *25 Permanent, Jobs*
 - *Spin offs*
- *Crucial Power Generation*
 - *Brown-out warnings*
 - *Energy Independence*
 - *Renewable vs. fossil fuels*



Key Milestones

- *Projected Siting Council Filing – early Q2 2006*
- *Projected DEP Permit Applications – early Q2 2006*
- *Power Contract Award – late 2006*
- *Anticipated Receipt of Permits – early 2007*
- *Projected Financing and Construction Start – early 2007*
- *Projected Commercial Operations Date – mid 2008*



Plainfield Renewable Energy

Q & A

