

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

060000

DATE: March 8, 2006
TO: Blanca S. Bayó, Commission Clerk and Administrative Services Director
CC: Richard D. Melson, General Counsel
FROM: Katrina J. Tew, Commissioner *KJ*
RE: Meeting with Biomass Investment Group

On February 21, 2006, I met with Schef Wright and Kevin Mills, representing the Biomass Investment Group (BIG). The meeting was a technical briefing on BIG's proposed development of biomass projects in Florida. During the conversation, Mr. Wright mentioned that BIG would be applying for QF status in Florida, possibly sooner than 90 days, but he did not discuss the merits of that request.

In an abundance of caution, I request that the attached copy of the presentations be placed in the public record pursuant to Section 350.042(6), F.S. Since there is no pending proceeding at this time, but one may be filed within 90 days, I respectfully ask that:

- 1) the materials be placed immediately in Docket No. 060000, which relates to undocketed filings for 2006; and
- 2) if a docket addressing these matters is opened within 90 days, the materials be placed at that time in the docket file.

Thank you for your assistance with this matter.

Attachments

05 MAR -8 PM 3:33
COMMISSION CLERK
ADMINISTRATIVE SERVICES

DOCUMENT NUMBER-DATE

02011 MAR-8 8

EDSC-COMMISSION CLERK

State of Florida

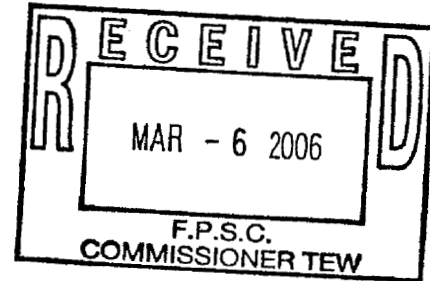


Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: March 6, 2006
TO: J. Terry Deason, Commissioner
CC: Lisa Polak Edgar, Chairman
Isilio Arriaga, Commissioner
Matthew M. Carter, II, Commissioner
Katrina J. Tew, Commissioner
FROM: Richard D. Melson, General Counsel *RDM*
RE: Meeting With Biomass Investment Group



On February 21, 2006, you met with Schef Wright and Kevin Mills, representing the Biomass Investment Group. The meeting was a technical briefing on their proposed development of biomass projects in Florida. Toward the end of the conversation, Mr. Wright mentioned that Biomass would be applying for QF status in Florida, possibly sooner than 90 days, but did not discuss the merits of that request.

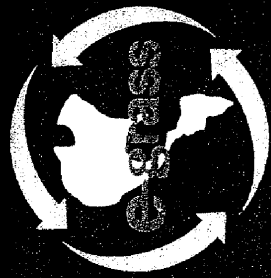
Section 350.042(1) prohibits a Commissioner, with certain exceptions, from initiating or considering ex parte communications regarding the merits of a pending proceeding. That section also precludes an individual from discussing with a Commissioner the merits of any issue that he or she knows will be filed with the Commission within 90 days

Because there is no pending proceeding, and because the conversation did not involve the merits of a potential QF status issue, it appears the conversation was not prohibited by Section 350.042.

Nevertheless, in an abundance of caution, I recommend that a short memo regarding the meeting, and a copy of any meeting materials, be placed on the public record pursuant to Section 350.042(6). Since there is no pending proceeding at this time, but one may be filed within 90 days, I recommend that:

- 1) the materials be placed immediately in Docket No. 060000, which relates to undocketed filings for 2006; and
- 2) if a docket addressing these matters is opened within 90 days, the materials be placed at that time in the docket file.

RDM/mee



Biomass Investment Group, Inc. “BIG”

A Biomass
Farm
Producing
Renewable
Electricity





Mission Statement

To reduce dependence upon foreign oil and other fossil fuels.

To improve air quality by reducing harmful emissions.

To create new jobs and business investment.

To earn a good return on capital invested while producing renewable electricity and improving the environment.



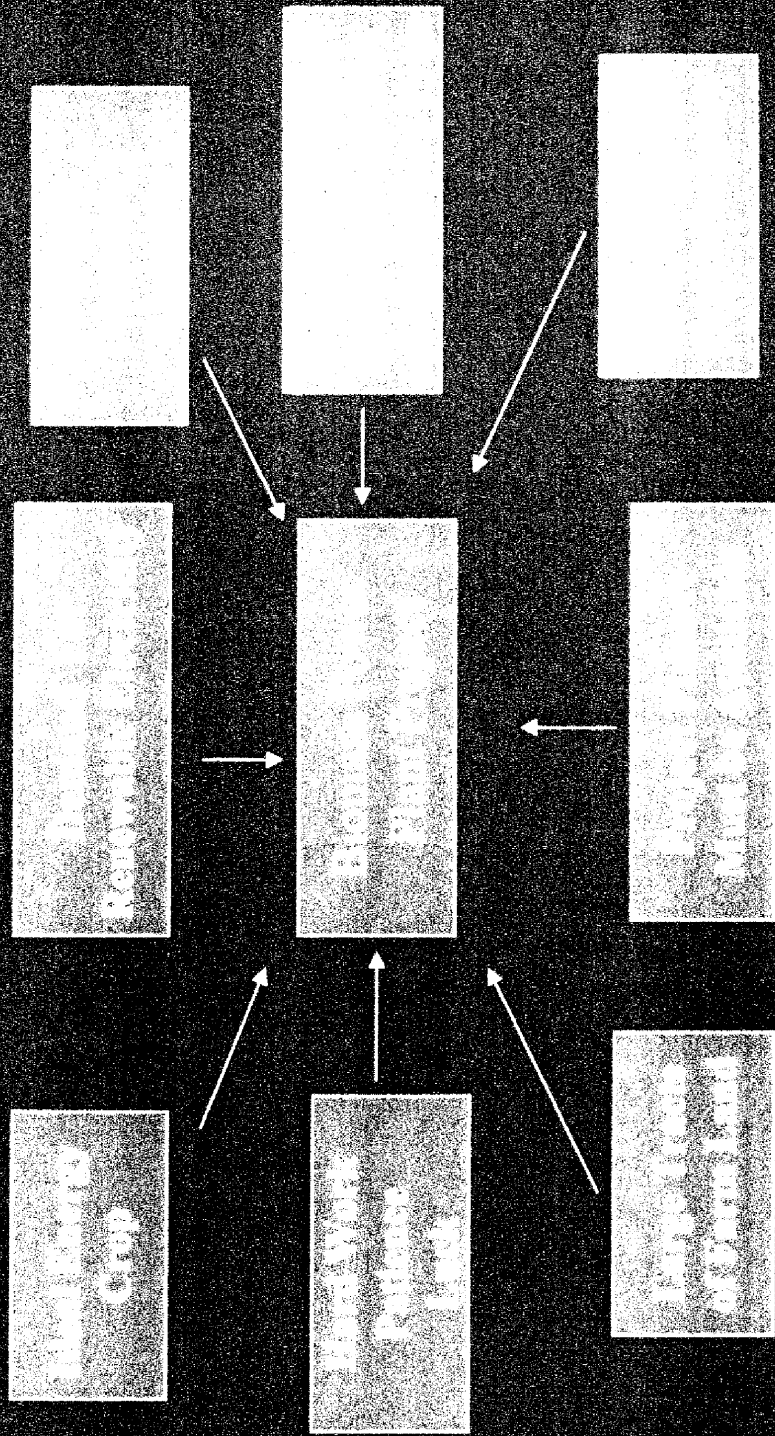
The Business Model

We can meet the objectives of our Mission Statement by utilizing the Business Model that we have developed.



Business Model

A SUCCESSFUL BIOMASS POWER BUSINESS MODEL





Business Model

A SUCCESSFUL BIOMASS POWER BUSINESS MODEL

Ideal Energy
Crop

Domestic
Renewable Energy

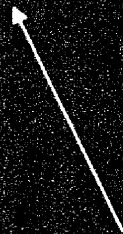
Energy
Production



Energy
Production
Land

Biomass Power
Plant Project

Energy
Production

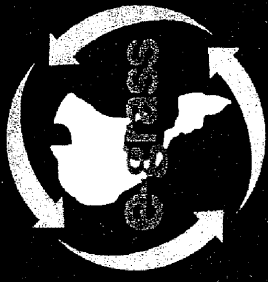


Large Farms
of Poor Land

Private
Investment

Energy
Production





E-Grass™ - The Ideal Energy Crop

High yield per acre.

High BTU value per pound.

Low maintenance cost.

Easy harvest and storage.

Not vulnerable to disease and pests.

E-Grass is the Ideal Energy Crop.



E-Grass™ – The Ideal Energy Crop

Yields 15-20 dry tons per acre per harvest.

You can get two harvests per year in warm climates with adequate rainfall.

Approximately 8,000 BTUs per pound.

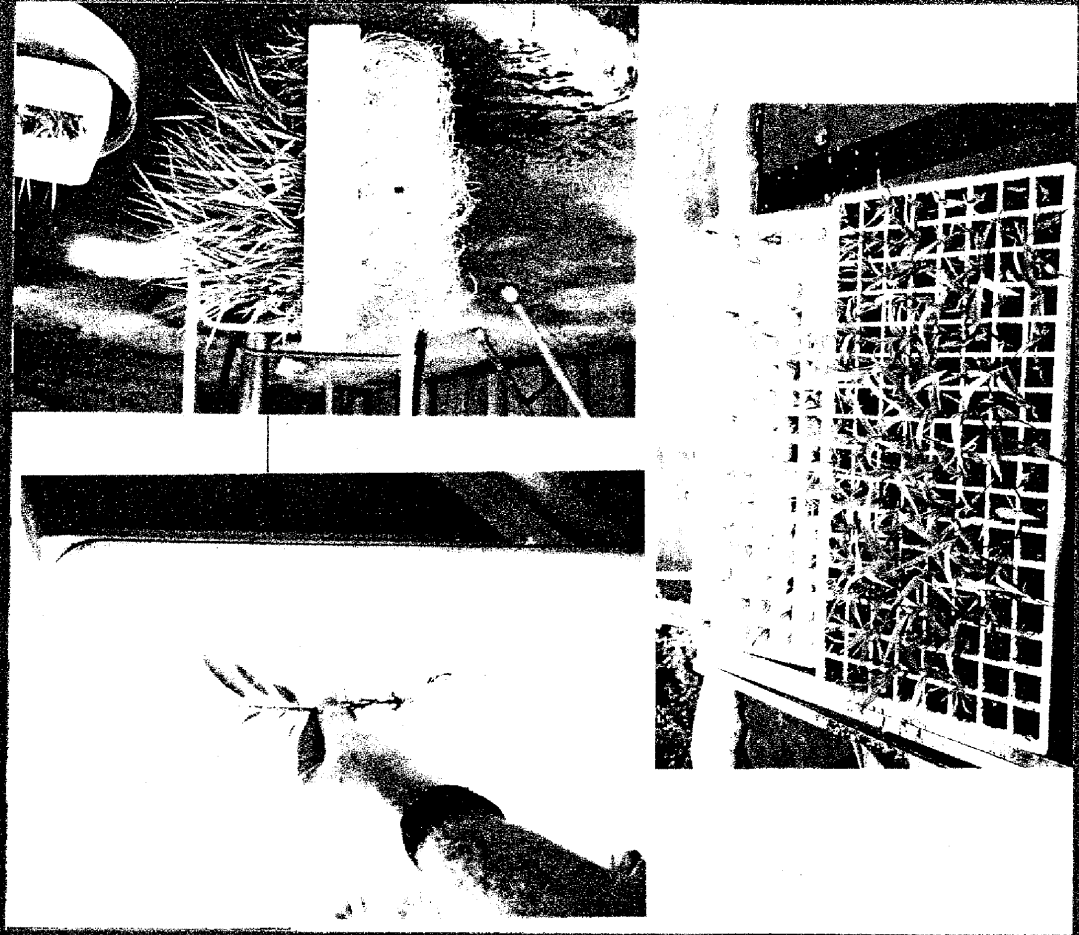
The Company has obtained a proprietary method of tissue culturing plantlets.

You can use conventional methods for harvesting the crop.

The crop is basically free of plant disease and insect infestation.



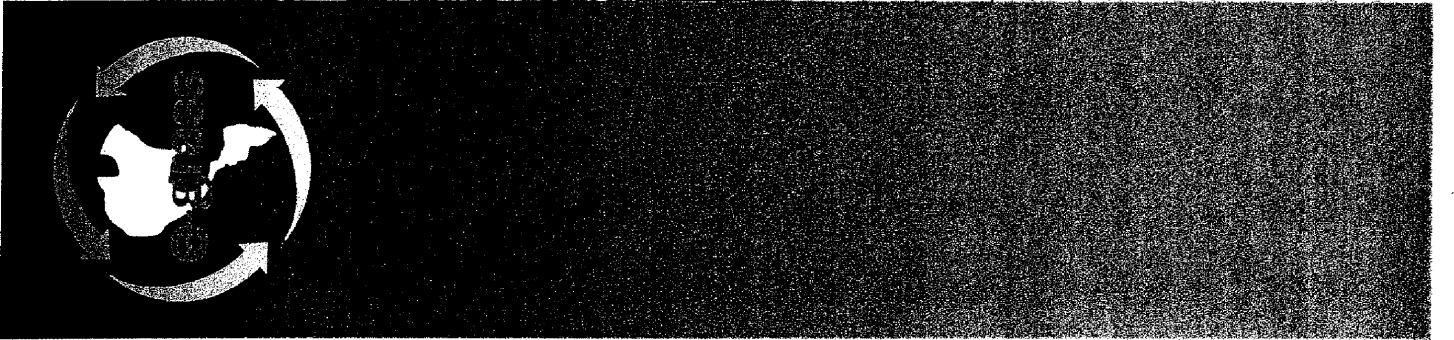
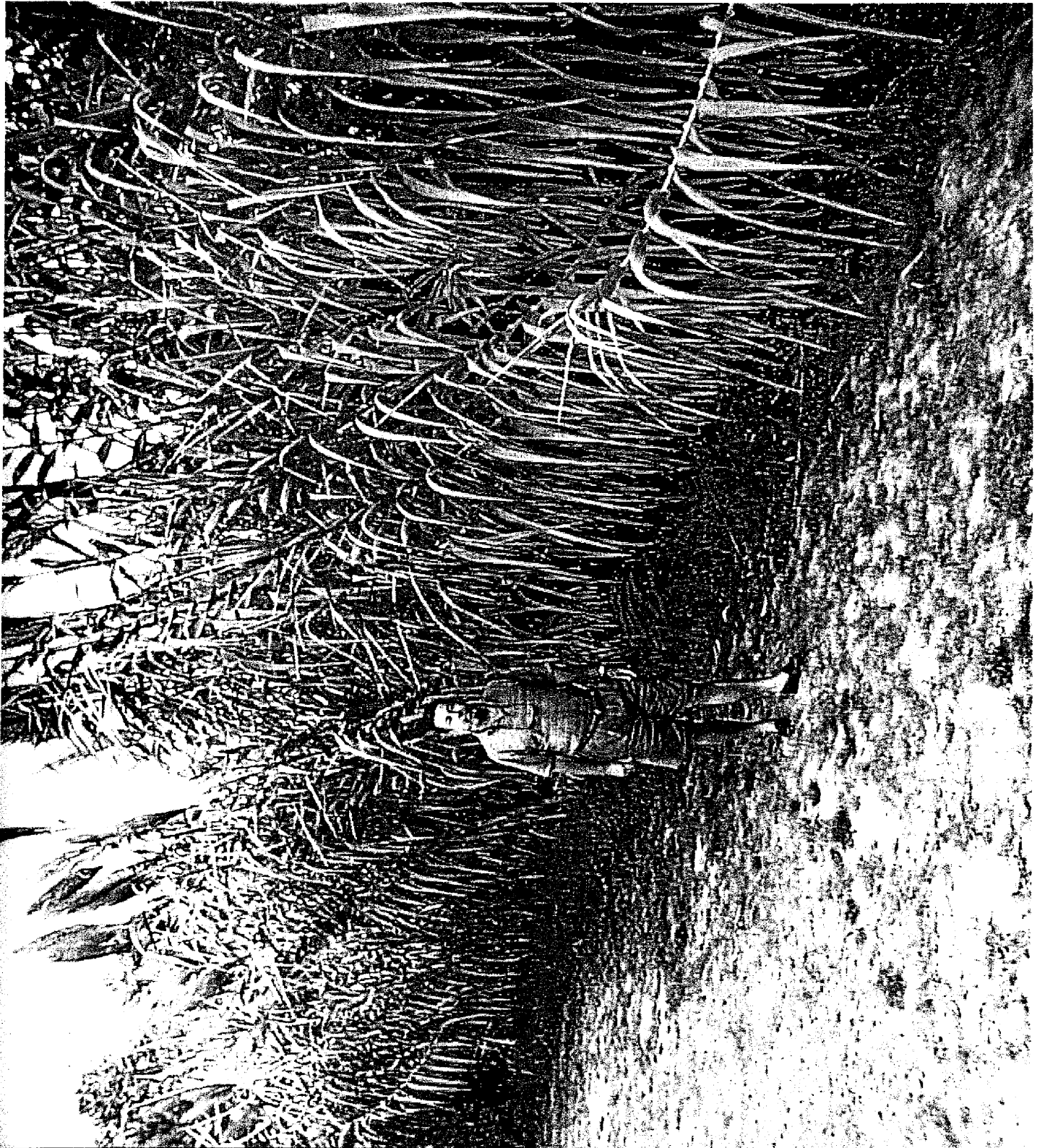
E-Grass Plantlets





Mature E-Grass produces a full
crop every 5-6 months

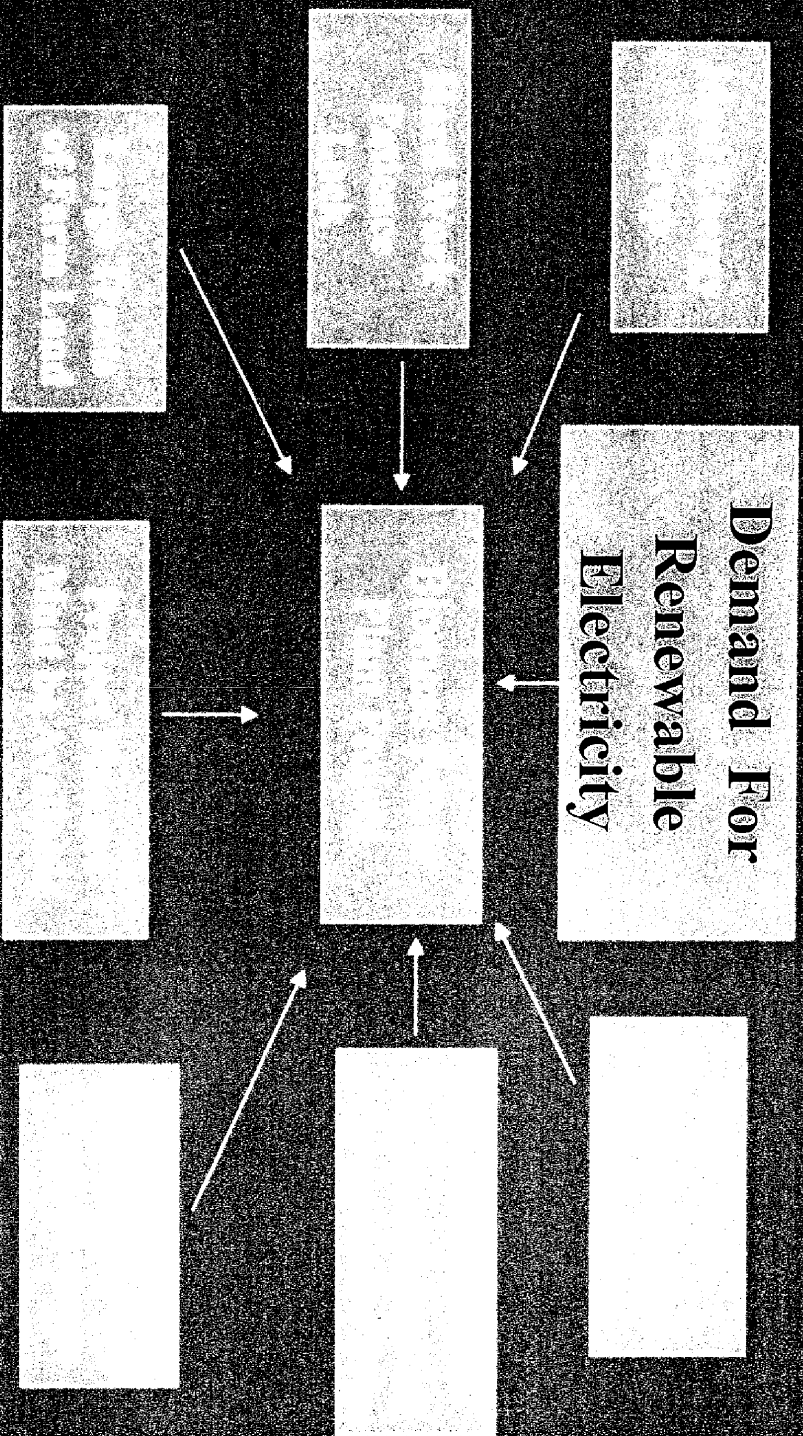






Business Model

A SUCCESSFUL BIOMASS POWER BUSINESS MODEL





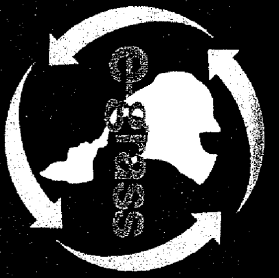
Demand for Renewable Electricity

Currently, 21 states have adopted portfolio requirements.

The US military and many US governmental agencies have adopted goals for the utilization of renewable electricity.

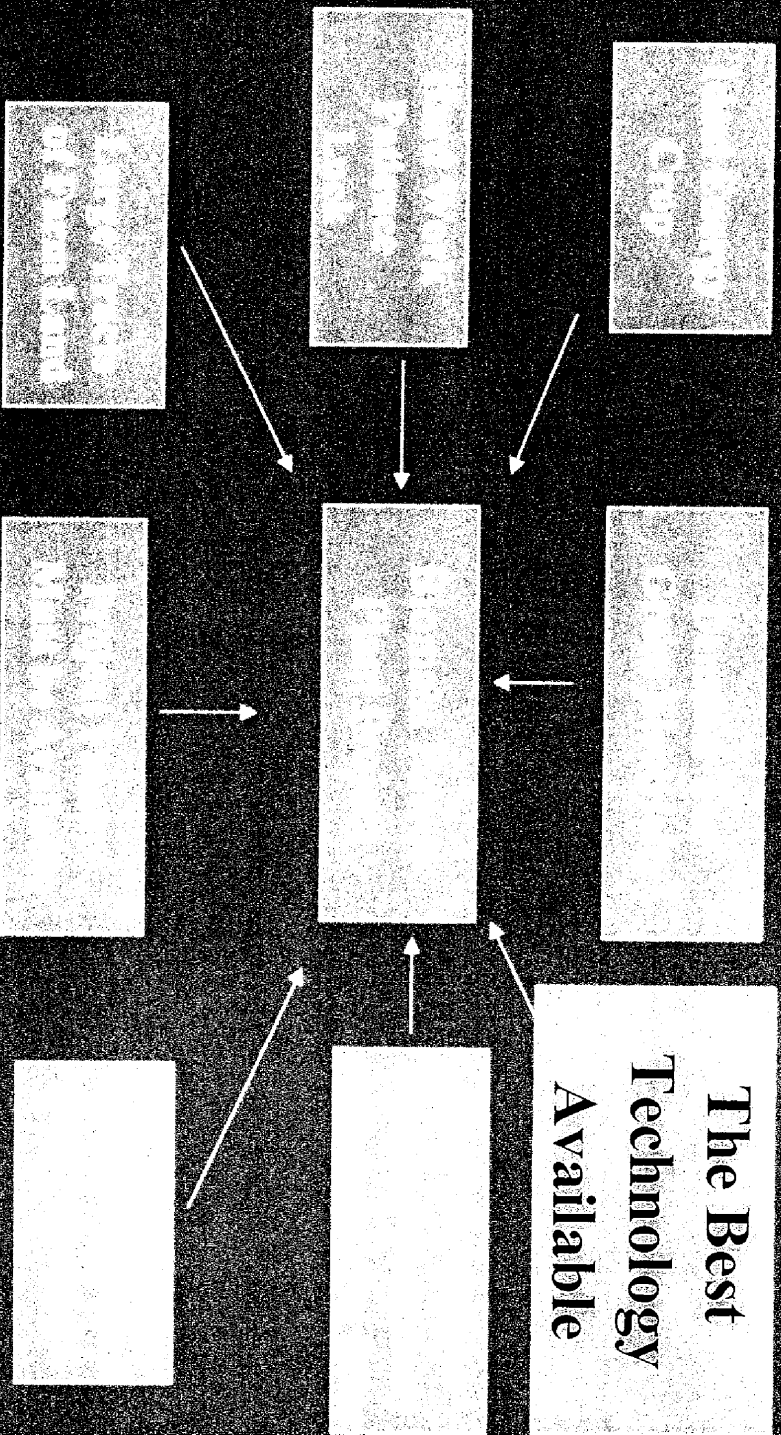
Many municipal and other power distribution systems have established green electricity programs.

Almost all electric utility companies are seeking better and more stable fuel costs.



Business Model

A SUCCESSFUL BIOMASS POWER BUSINESS MODEL





You must Use the Best Technology Available

Older technology consists of burning biomass in a furnace in a simple cycle process.

By using a process (fast pyrolysis) that can convert the biomass into a gas or oil, you can use the gas or oil as fuel in a gas turbine as part of a combined cycle process for increased efficiency.

BIG has developed proprietary fast pyrolysis technology that allows it to convert E-Grass into a bio-oil and use it in a combined cycle process.

Using this process enables BIG to be able to produce renewable electricity at competitive prices.



Business Model

A SUCCESSFUL BIOMASS POWER

Plant
Energy

Plant
Energy

Plant
Energy

Plant Work
Production
Plant

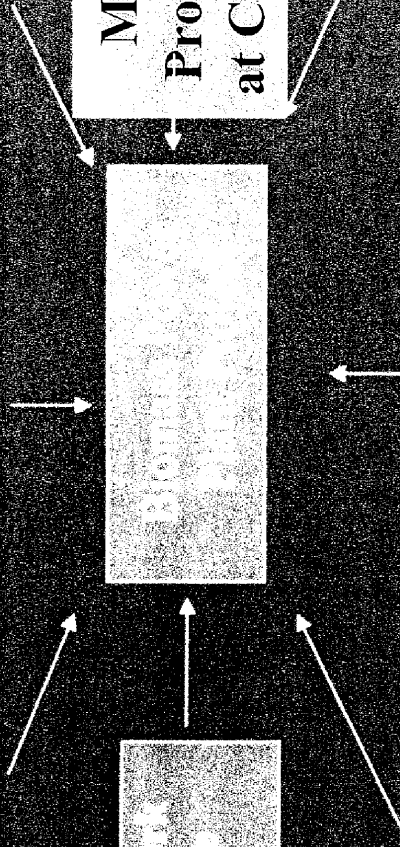
Plant
Energy

Must Be Able to
Produce Electricity
at Competitive Price

Plant Work
Production
Plant

Plant
Energy

Plant
Energy





You must be able to produce electricity at a competitive price

You must plant, grow and use the ideal energy crop. (BIG has E-Grass)

The power plant must utilize a combined cycle power plant. (BIG will utilize fast pyrolysis as part of a combined cycle power plant)

The power plant must be located on or near the biomass farm to reduce fuel transportation costs.

Recent increases in fossil fuel prices has resulted in BIG being able to use biomass to produce electricity at prices lower than electricity produced from fossil fuels



**You must have good people
and great partners.**

Company People

Engineers with proven track records, farm manager with years of experience growing our energy crop, experienced top level management, etc.

Partners

GE (turbines); Willbros Engineering (EPC contractor); Troutman & Sanders Law Firm (corporate); Wachovia Bank (limited partner); Ernst & Young (auditors); Young von Assenderp Law Firm (licensing); Cummings & Barnard (project engineers); ECT Engineering (permits).



Project Finance Must Be Available

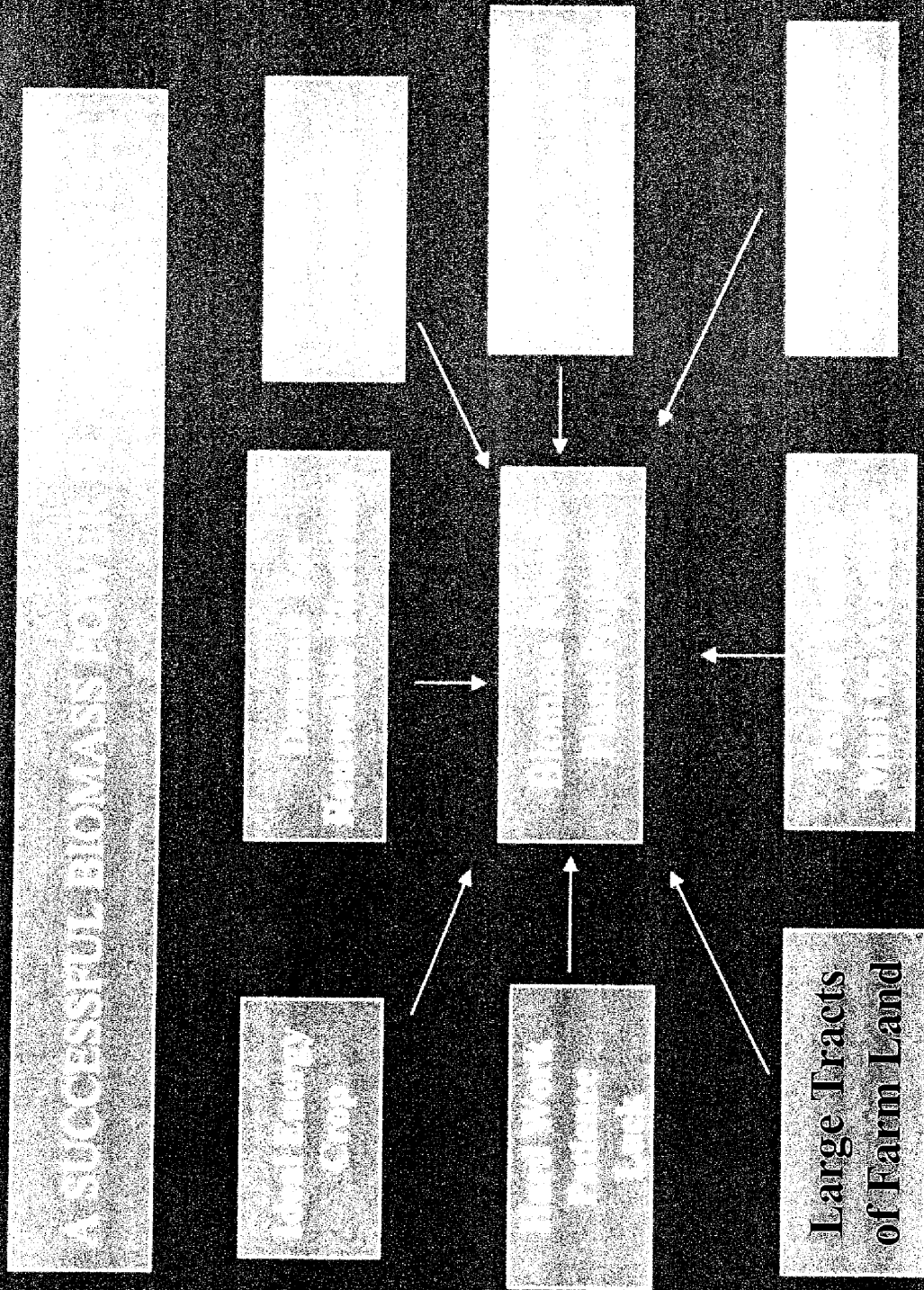
Must have a long-term PPA with a credit-worthy purchaser.

Must have an EPC contractor that will guarantee price and performance.

Project must be able to stand on its own financially; i.e. income to debt service ratio.



Business Model





Large Tracts of Farm Land Available

**We need a 15-20,000 acre farm for our standard
120MW power plant.**

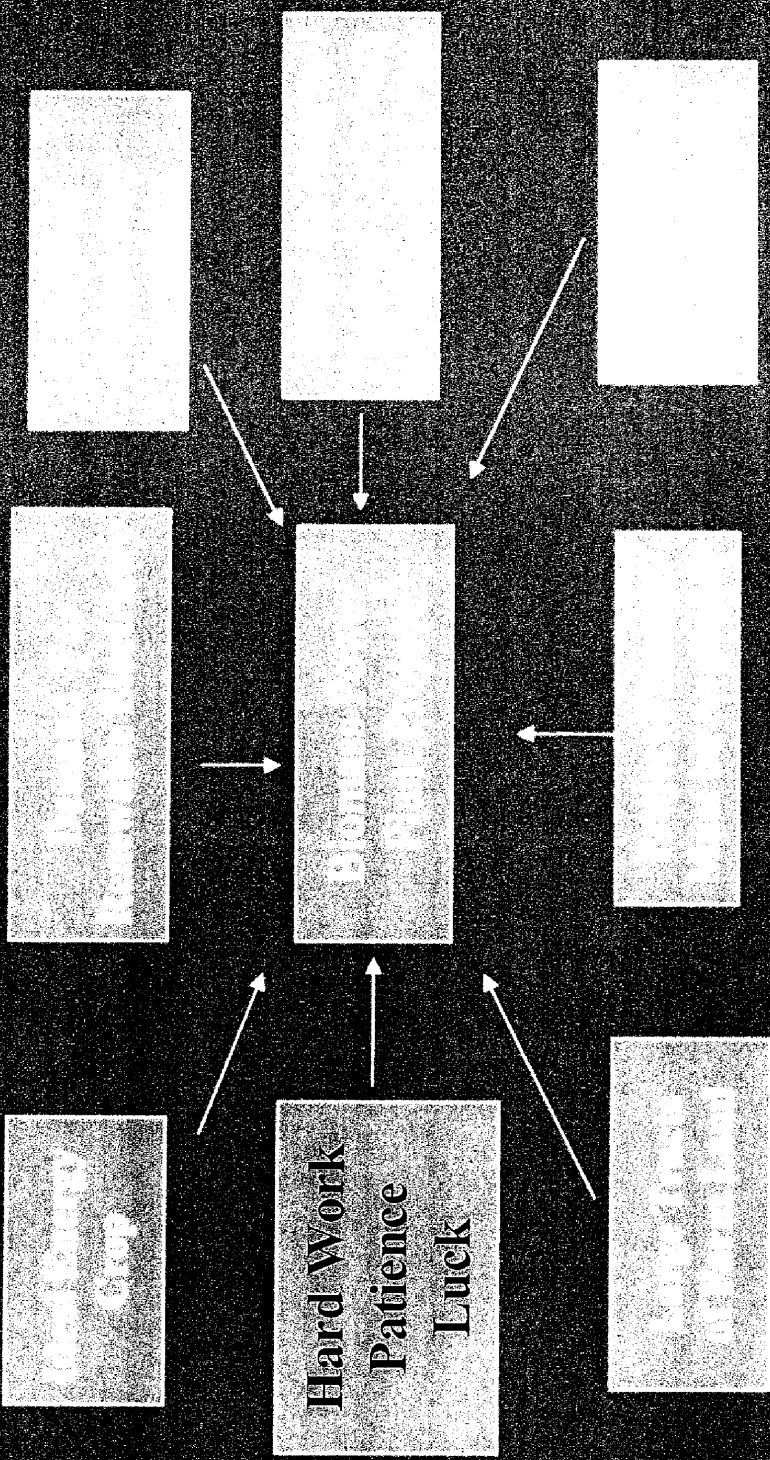
**We have tracts of farm land that meet this
requirement available to us in the southeastern
part of the US well as in Mexico & South
America.**

**These farms are available for purchase and/or
lease and meet our farming requirements.**



Business Model

A SUCCESSFUL BIOMASS POWER PLANT





Hard Work, Patience & Luck

- ✔ This has been a 24/7 project for the past 5 years.
- ✔ We have developed the best system available today to convert biomass into electricity.

We have identified the best energy crop in the world and developed a method of producing plantlets at a reasonable cost in an efficient manner.

Due to the high cost and price volatility of fossil fuels, the demand for renewable energy sources is at an all-time high.

“Hard work is the mother of luck!”



Our Plans

Develop 2-3 standard 120MW biomass projects (biomass farm with a power plant) in Florida over the next 4 years.

Develop several projects in the northeastern area of the US over the next 5-7 years using bio-oil from our biomass farm(s) in Mexico as the fuel.

Develop several projects over the next 5-7 years in other countries around the world to help them meet their energy needs with biomass rather than foreign oil.



Biomass Investment Group, Inc.
1198 Gulf Breeze Parkway Suite 6
Gulf Breeze, Florida 32561

850-916-1300

For more information contact:

Allen Sharpe, CEO

Jim Wimberly, President

Kevin Mills, VP Process Operations

IPCC Technology Overview

Biomass Investment Group



Co-Located Farm and
Integrated Pyrolysis
Combined Cycle

IPCC Technology Overview
Kevin J. Mills
kevin@egrass.com
(850) 916-1300



Discussion Outline

Biomass Renewables Past Impediments

Pyrolysis

Process Overview

Project Team

Permitting & Licensing



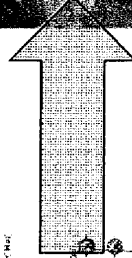
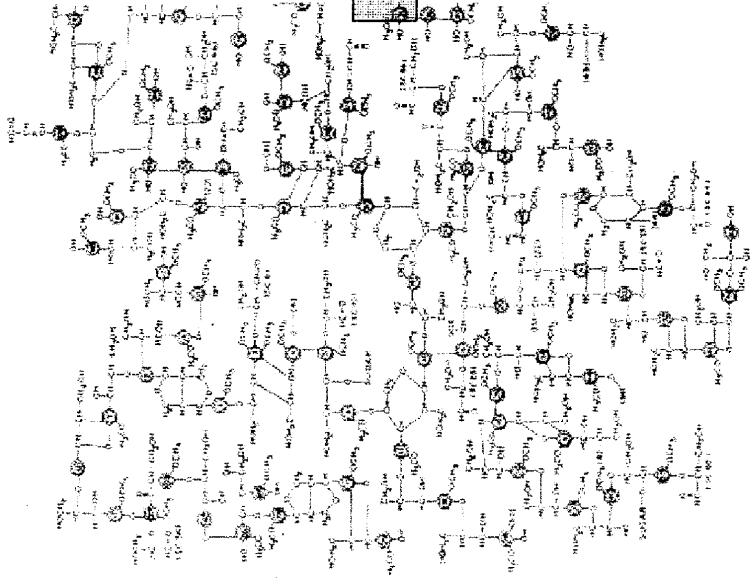
Past Impediments

Standard Offer Contract

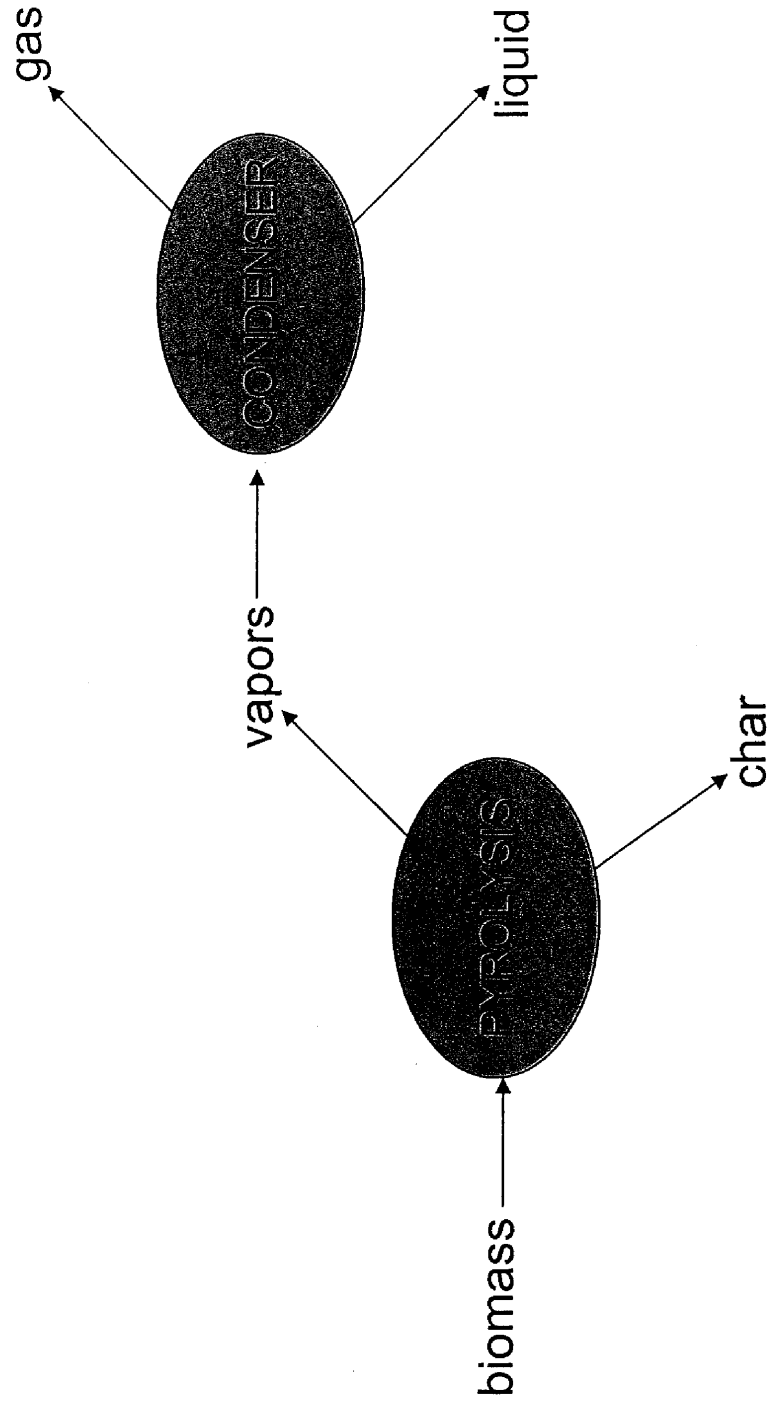
Unreliable Fuel Supply

Operational Issues

Pyrolysis

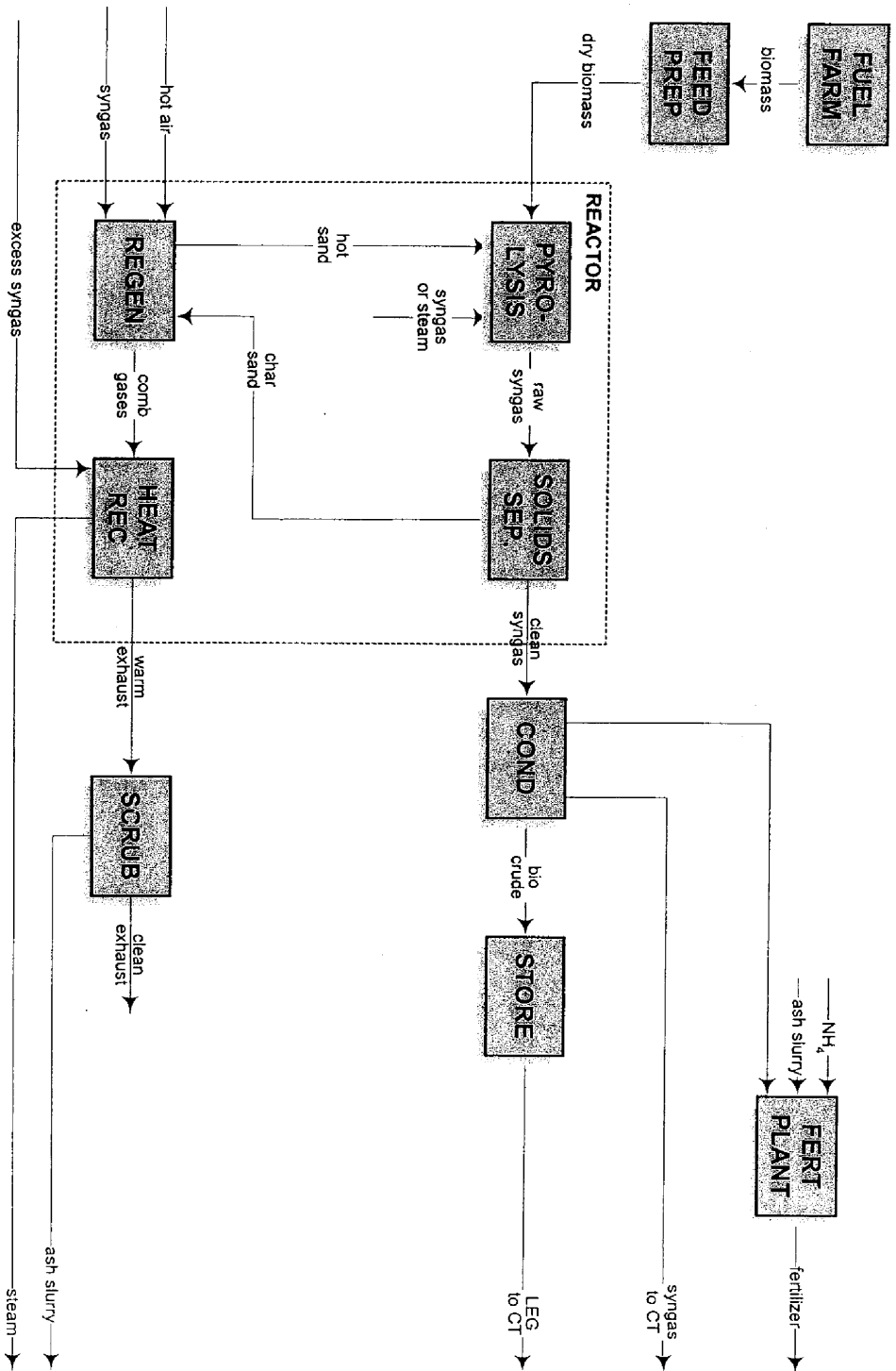


Pyrolysis





Process Overview



20-Feb-06

IPCC Technology Overview

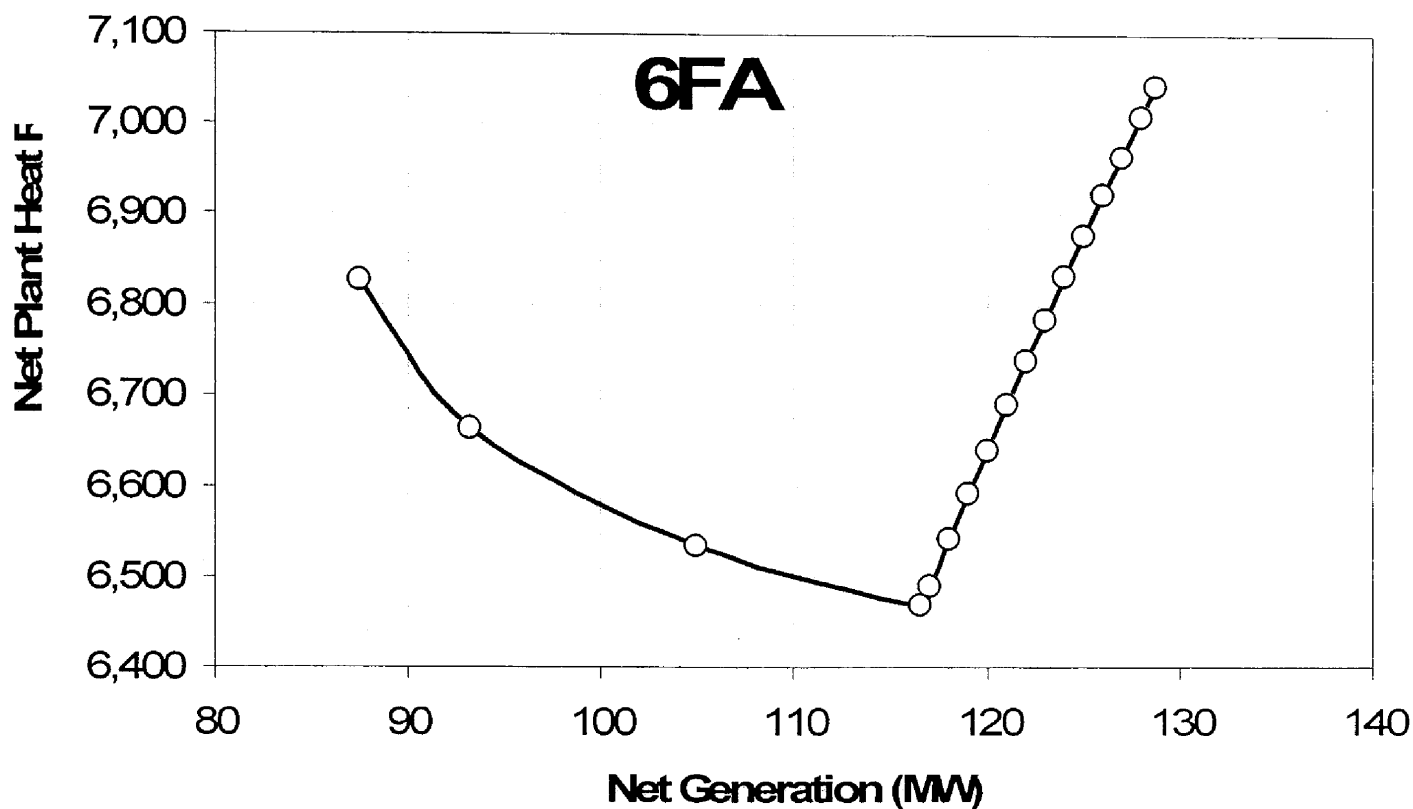


Project Team

Willbros Engineering Inc. (EPC)
Environmental Consulting & Technology
(permitting)
Young van Assenderp (siting & licensing)
Fieldstone (financial advisors)
PIC Mareubi Energy Group (O&M)
Invensys (enterprise IT architects)
Cummins & Barnard (owner's engineers)



Gas Turbine (GE PG6111FA)



(Siemens & Alstom offer competitive machines)



Permitting Overview

No Siting < 75 MW Steam Turbine & PPA

Requesting State QF Status

Water Use – within existing farm permits

Storm Water Runoff – within existing farm permits

Air Construction – 100 km from Class I

ERP – existing farm already has

Zoning Change – local is supportive



Criteria Air Emissions

UNCONTROLLED

NOx	175 tpy
SO2	390 tpy
Particulate	190 tpy
CO (15 ppmv uncontrolled)	205 tpy
VOC	120 tpy

CONTROLLED

SO2	195 tpy
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Synthetic Minor PSD Permit

Questions ???

