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Agricultural Outlook Forum
U.S. Department of Agriculture

Presented: February 18-19, 2010

Capital Markets for Biomass Products

Clayton D. Cheshire

EWING BEMISS & Co.



INVESTMENT BANKERS

**Capital Markets for
Biomass Projects**

February 2010

The difference is experience

Leading Middle Market Investment Bank

Ewing Bemiss offers high-caliber financial advisory services to clients executing middle market mergers and acquisitions.

- Founded in 1992
- Headquartered in Richmond, Virginia with an office in New York City
- Independent, well-capitalized and partner-owned firm
- 19 professionals with extensive transaction experience and industry expertise
- More than 200 successful transactions
- Dedicated renewable energy practice
- Clients ranging from financial sponsors to closely held companies to large multinational corporations
- FINRA sponsored (previously the NASD)

Comprehensive Advisory Services

Ewing Bemiss professionals have considerable experience serving a variety of client-specific needs and transaction characteristics within the middle market.

M&A Advisory

- Sales & Divestitures
- Buy-Side Advice and Negotiations

Private Capital Formation

Debt, Mezzanine and Equity Capital for:

- Growth
- Recapitalizations
- Management Buyouts
- Shareholder Liquidity

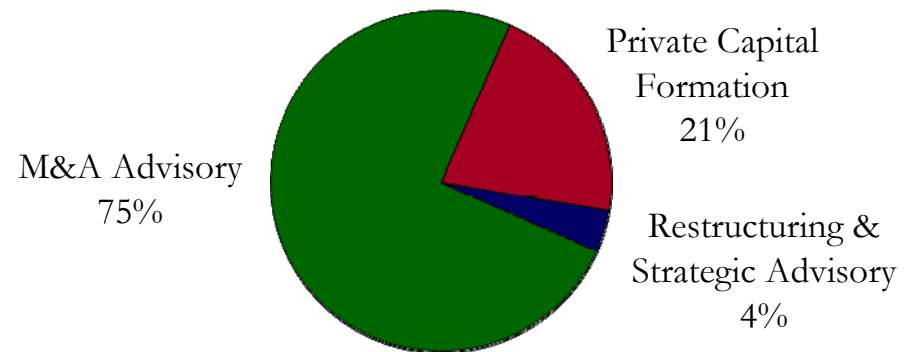
Financial Restructuring Services

- Reorganization Proceedings
- Recapitalizations

Strategic Advisory Services

- Valuations
- Fairness Opinions
- Strategic Alternatives Analysis

Advisory Assignments



Energy Focus Areas

Our approach is multifaceted, as we have represented all components of the energy industry. From component manufacturers to power producers, Ewing Bemiss offers its clients access to the most qualified buyers and investors.

Renewable Energy

- Biomass
- Landfill gas
- Hydro
- Geothermal
- Solar
- Wind

Energy Services

- ESCOs
- Energy Efficiency
- Monitoring system & equipment
- Energy marketing & sales
- Business services

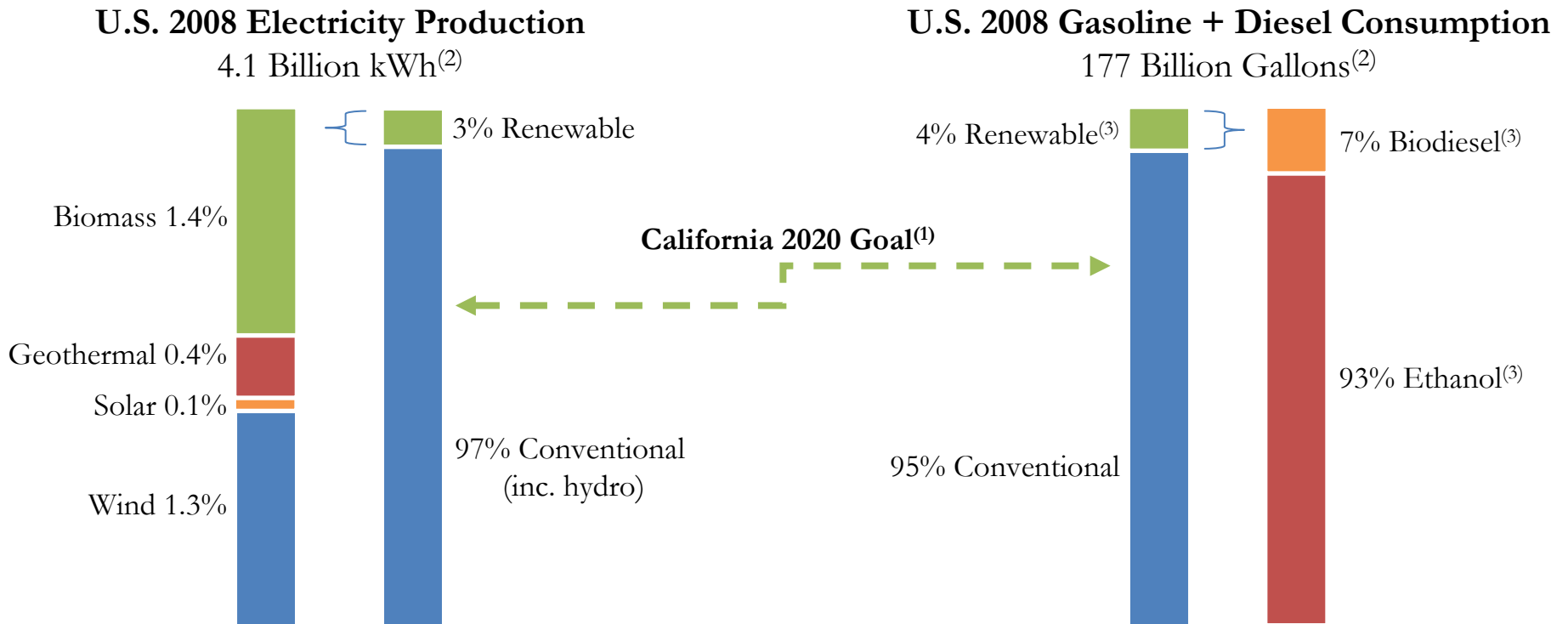
Other

- Water
- Traditional generation
- Distributed generation
- Smart grid
- Small utilities
- Pipelines

Biomass Overview

Role of Renewables is Limited but Growing

- Despite increasing regulatory support and other incentives, renewables are still a small part of the United States' energy mix
- Renewable incentive programs and mandated production requirements will continue to fuel growth
- California as proxy –33% of electricity and 20% of fuels by 2020⁽¹⁾ from alternative sources

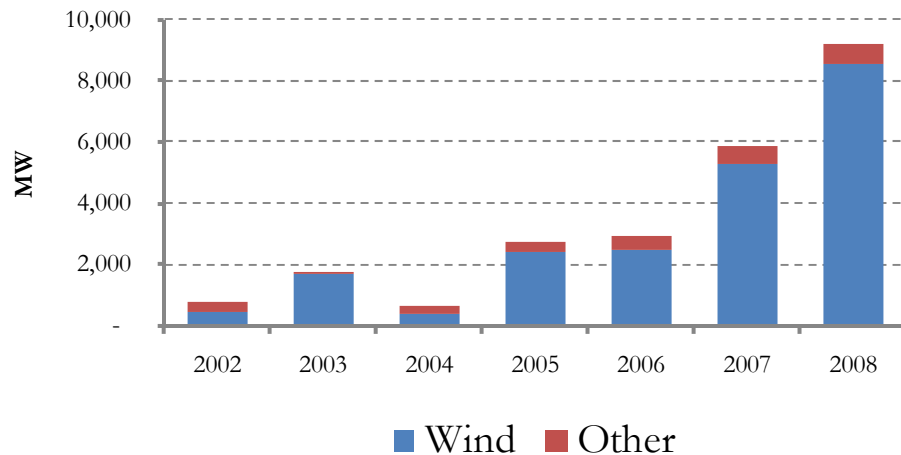


Sources: (1) Pew Center on Global Climate Change. CA Low Carbon Fuel Standard
 (2) Energy Information Administration
 (3) GreenTech Media Research Report: Biofuels 2010. Energy Information Association

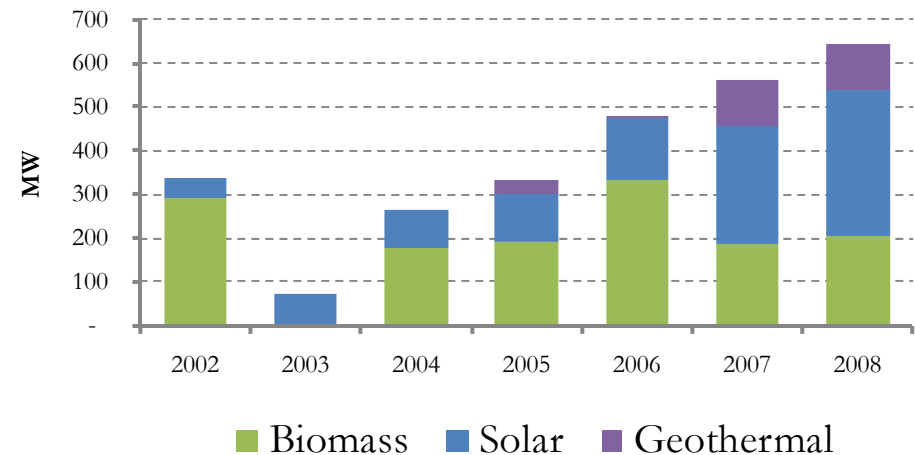
Enormous Amounts of Capital Being Invested

- The past 5 years have seen enormous growth in renewable energy, almost a 50% increase in nameplate capacity
- Growing number of investors and capital interested in entering market
- Wind represents the majority of development

Capacity Added

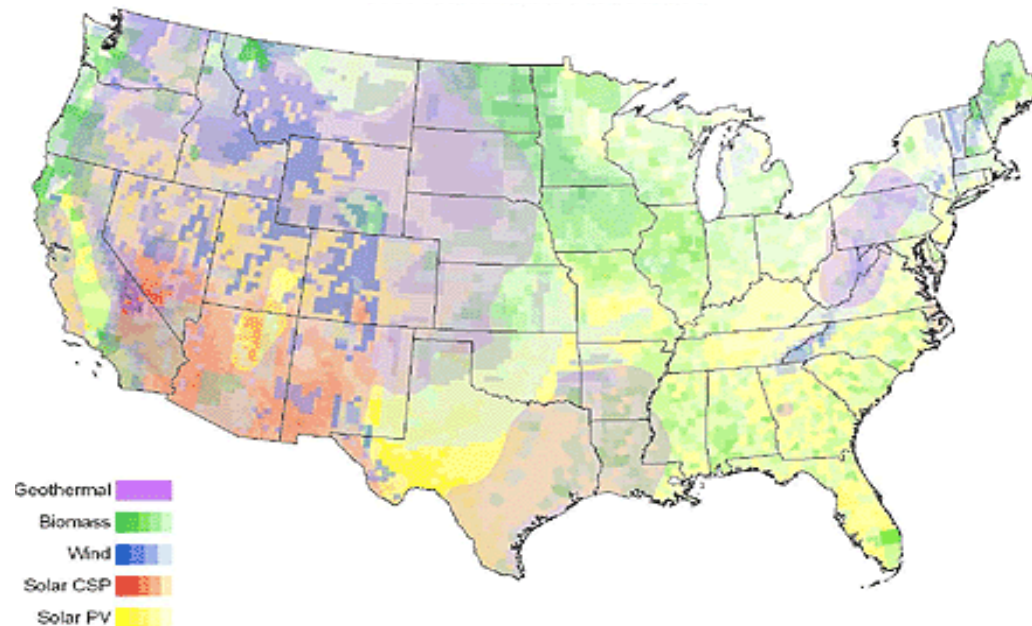


Capacity Added (ex Wind)



Biomass Represents Critical Part of Solution

- The US is rich in biomass resources
- Only renewable where fuel is not “free”
- The southern US and portions of the Midwest have little potential for wind or solar projects but are rich in biomass resources
- Electricity generation projects currently attracting most capital (Biopower and Pellets)
- Biofuels will also play an important role, current environment is challenging



Biopower Overview

- Biopower projects generate electricity through the combustion or gasification of biomass

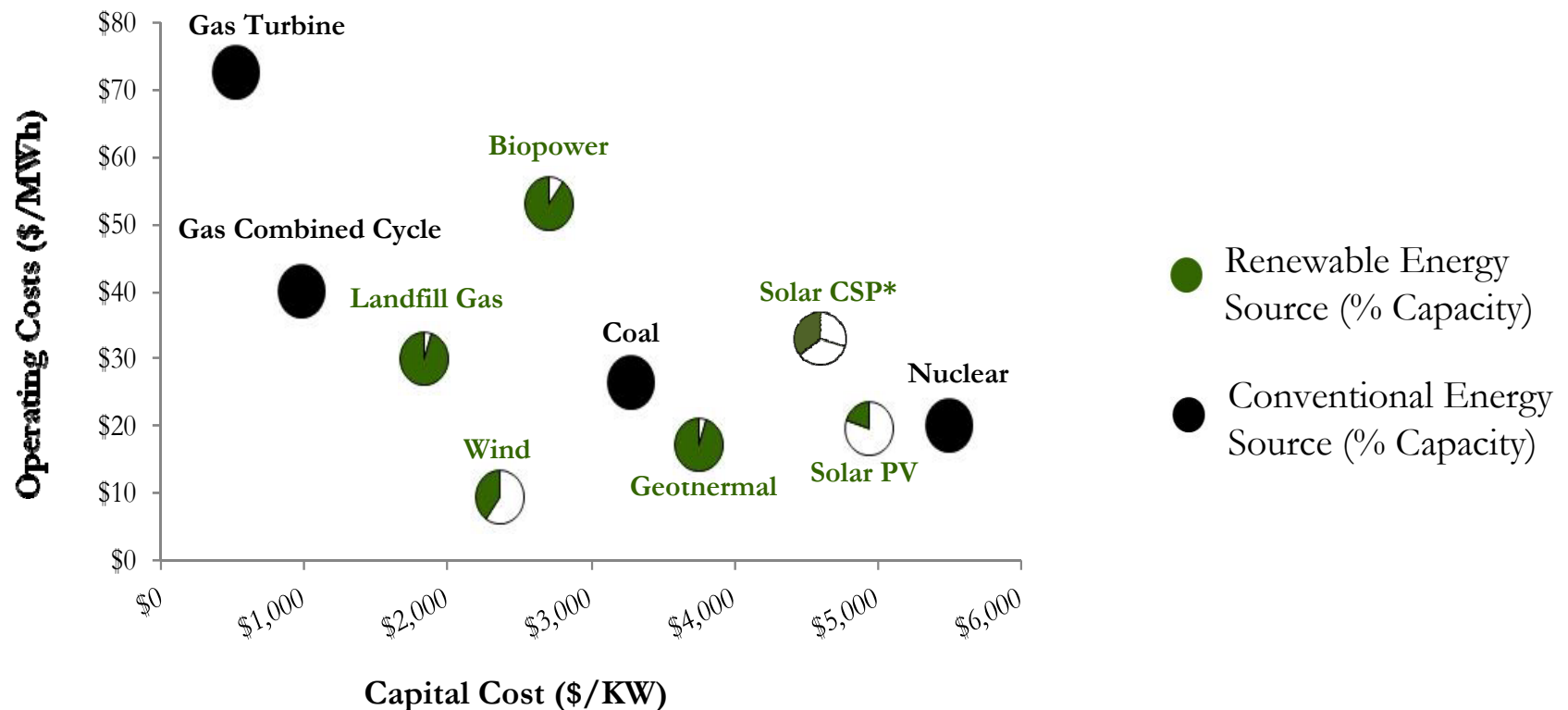
- Surge of Development in the 1980s and 1990s
 - Reaction to the Oil Crisis
 - PURPA legislation
 - Section 29 tax credits

- Softening of Development Late 1990s through early 2000s
 - Deregulation of the electricity market
 - Surge of IPP market
 - Lower natural gas prices
 - Increased raw material (wood) costs in some areas
 - No tax credits available

- Resurgence of Development – 2004 to present
 - Volatile energy prices – high electric rates as well as dramatic rise (and fall) in price of natural gas
 - Heightened interest in Green/Renewable projects
 - RPS are adopted by majority of states – requiring renewable power generation in near-term future
 - 2009 Stimulus Package – extends renewable energy credits and provides grants & loans
 - Ability to purchase/retrofit shut down fossil-fired facilities – less expensive and quick

Biopower Offers Unique Qualities as a Renewable Source

- Grid infrastructure becoming an increasing challenge and cost
- Hidden costs of capacity requirements
- Increasing demand for 24/7/365 “base load” renewable electricity
- Biopower represents one of the only base load renewable options with widespread availability of fuel resources

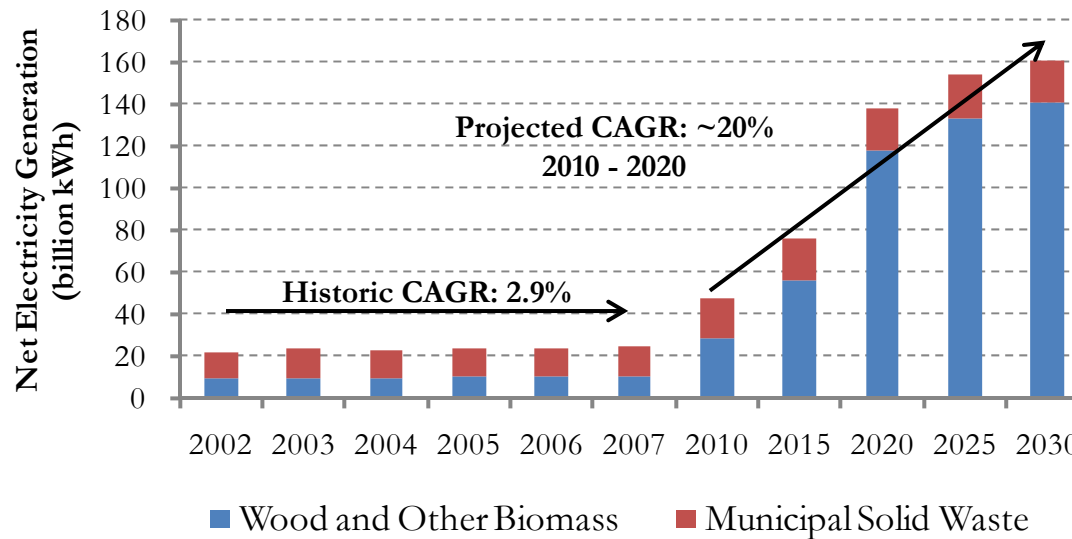


Sources: U.S. DOE 2008 Renewable Energy Data Book, EBC&Co. estimates
 Note: Assumes \$5.00/mmbtu gas, \$2.00/mmbtu coal, \$1.50/mmbtu uranium, \$20/ton biomass ; Solar CSP capacity can be enhanced with thermal storage

Biopower Growth Trend

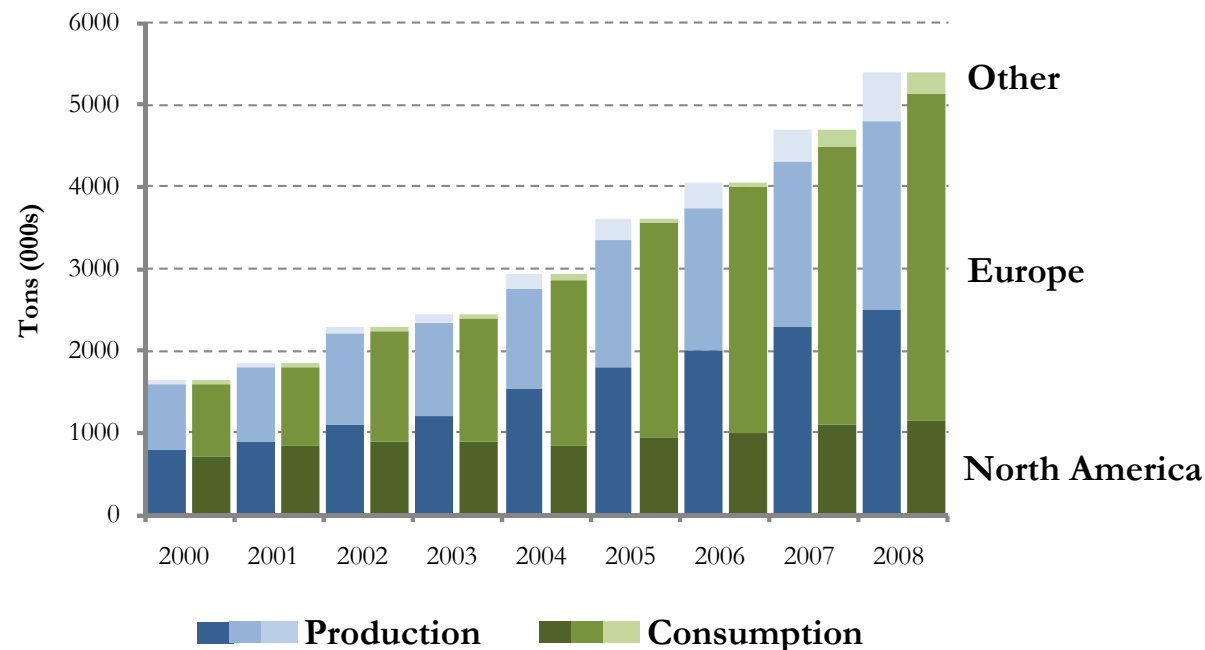
- Biopower industry – 450 facilities consuming approximately 70 million tons of forest waste, reducing annual carbon dioxide emissions by 15.2 million tons
- Many are co-generation by forestry product companies
- U.S. biomass electricity generation projected to grow 5x by 2030
- DOE estimates that biomass can potentially provide 14% of all U.S. energy needs

Projected Biomass Growth



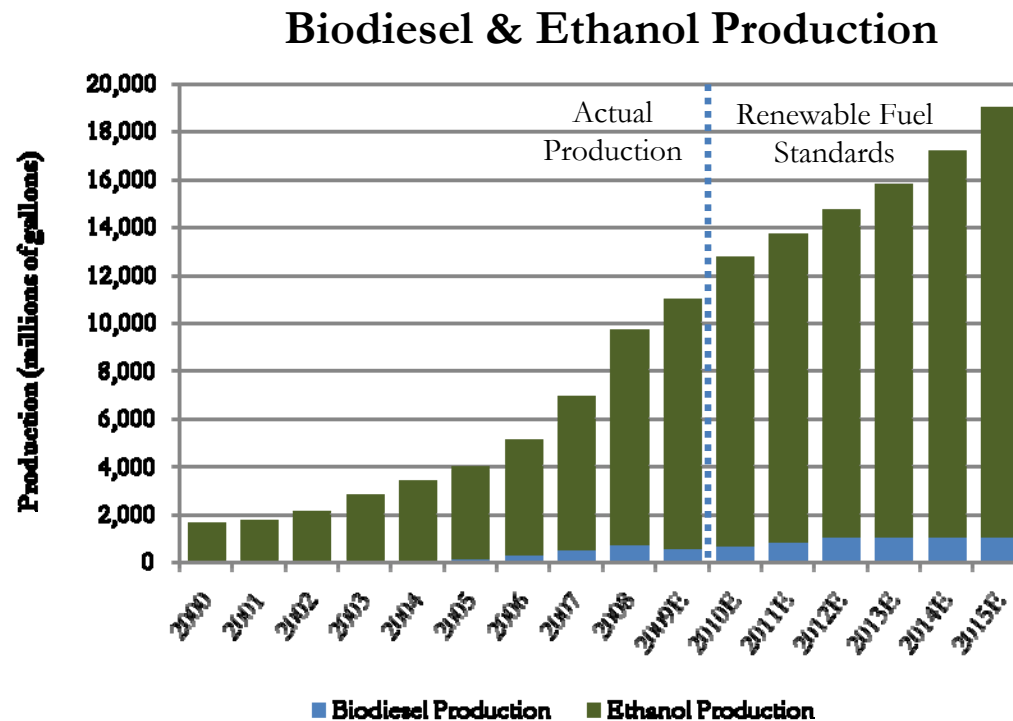
Pellets Provide Alternative to Harness Biomass

- Used in wood stoves, boilers, and electric production
- Largest markets are in Europe, largest production in North America
- Fueled by rapidly rising petroleum costs and increases in production technology, the wood pellet industry continues to exhibit abundant growth – CAGR of 15.6% 2000 - 2008
- Demand continues to outstrip supply with 100% of all production currently consumed
- Domestic co-firing becoming more important



Biofuels Continue to Show Increasing Production

- Heavily subsidy dependent industry
- Food for fuel debate
- Difficulties hedging plants from commodity risks
- Cellulosic ethanol and biodiesel promising, however technology and scale are problematic



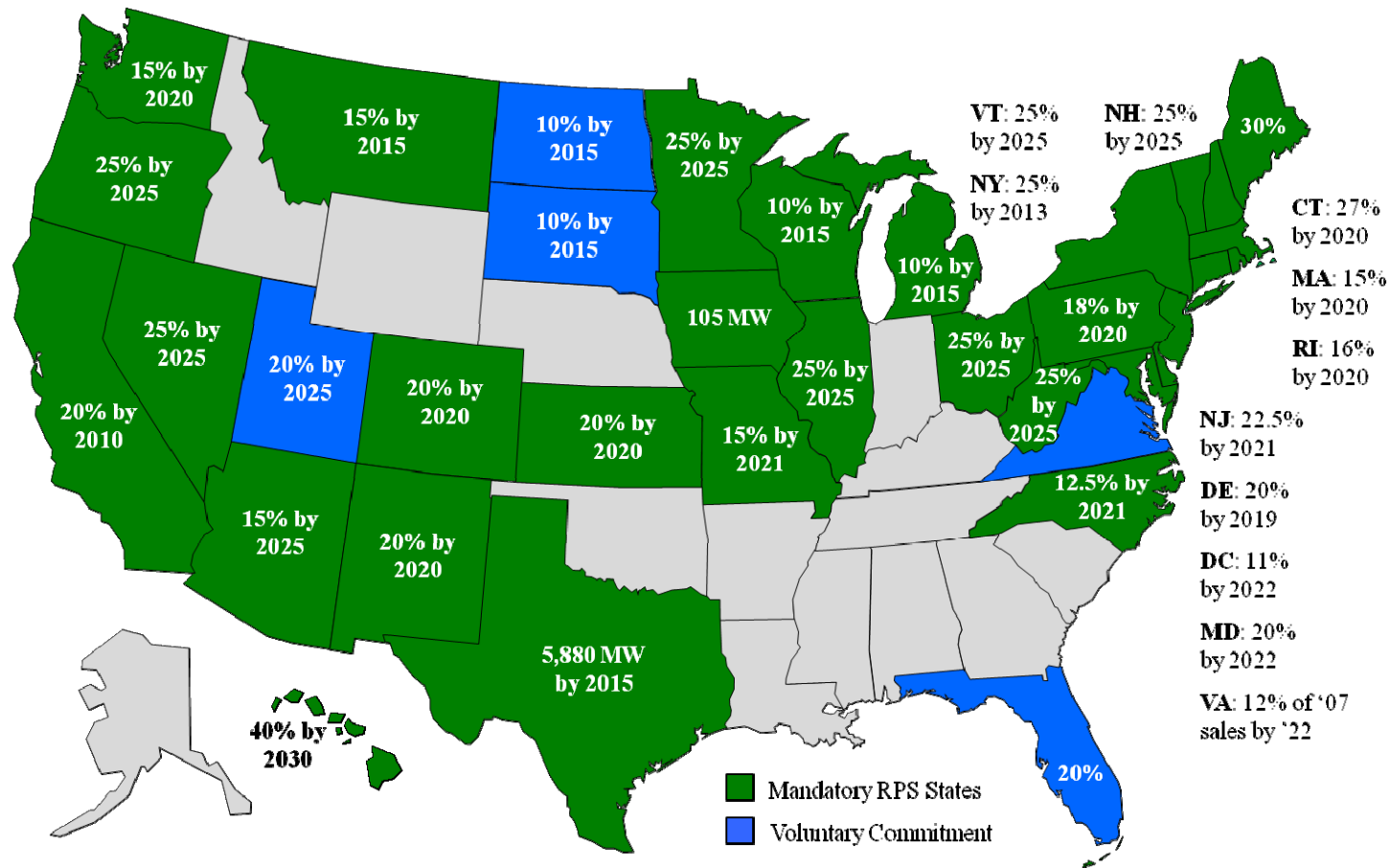
Capital Markets and Incentives

What is Driving the Market?






- Capital markets have pulled back due to recent global downturn
- Debt and equity have both become more expensive and selective
- Existing relationships critical in debt markets.
- Debt providers still extremely risk averse
- Lots of deals in the market and pending, but still few closed transactions
- Increased number of opportunistic investors
- Middle market renewable energy still seen as an attractive place to invest

Biopower Development Driven by RPS Legislation

- In absence of a Federal mandate, States have led the way in legislation
- Renewable Portfolio Standards (“RPS”) set mandatory requirements for renewables
- Development has followed RPS legislation



Biomass Incentive Programs

	<p>Production and Investment tax credits</p> <ul style="list-style-type: none"> ■ ~\$11 per Mwh for 10 years or 30% of eligible capital ■ Facility must be operational by 12/31/2013 ■ Large number of approved projects, requires tax appetite or tax investor
	<p>ARRA Cash Grant</p> <ul style="list-style-type: none"> ■ 30% of project costs in the form of a cash grant at commercial operation ■ Facility must be under construction by 12/31/2010 ■ Unlimited funds, large number of approved projects, limited timeframe
	<p>RUS Loan</p> <ul style="list-style-type: none"> ■ Provides loans to biomass projects in rural areas ■ Must have offtake agreement in place with RUS affiliated entity ■ 4 projects approved in 2009
	<p>Biomass Crop Assistance (“BCAP”)</p> <ul style="list-style-type: none"> ■ Targeted to biomass producers with ancillary benefit to biomass facilities ■ Matching of up to \$16 per ton of dry biomass sales ■ Limited funds with large pool of applicants
	<p>Loan Guarantees</p> <ul style="list-style-type: none"> ■ Requires approved bank to be lender and provides guarantee on loan ■ Few funded projects to date

Private Market Capital Sources

Lenders	Private Equity	Strategic Partners
<p>European Banks (WestLB) Regional Banks (Union Bank of CA) Ag Banks (Co-Bank) Subordinated Debt Providers (Akieda) Life Insurance Companies (Prudential) Bonds (Solid waste, tax credit) Finance Companies (GE Capital)</p>	<p>Representative Participants</p> <p>Infrastructure Funds (EIF) Public BD Firms (Blackstone) Energy Focused Firms (Starwood) Investment Banks (Goldman) Hedge Funds (DE Shaw)</p> <p>Capital Provided</p>	<p>IPPs (Covanta / NRG) Foreign Utilities (EDF) Domestic Utilities (Duke) Energy and Petroleum (Valero)</p>
<ul style="list-style-type: none"> - Construction Financing (Debt) - Take-out Financing - Working Capital 	<ul style="list-style-type: none"> - Construction Financing (Equity) - Acquisitions - Minority Partner/Majority Partner <p>Commentary</p>	<ul style="list-style-type: none"> - Development Capital - Development Buyout - Acquisitions
<ul style="list-style-type: none"> - Very low risk profile - Focus on fees and return of capital 	<ul style="list-style-type: none"> - Range of creative solutions - Increasing number investing in renewable energy 	<ul style="list-style-type: none"> - Potential for balance sheet financing - Carbon mitigation plays part in strategy

Case Studies

Case Study:

Sale of Wood Fired Electric Facilities

 **Ridgewood** Renewable Power

and

INDECK
ENERGY SERVICES, INC.

have sold

Indeck Maine Energy, LLC

to

COVANTA
ENERGY

For \$52 Million
plus working capital

Situation

- Two 25 MW wood waste biomass facilities in New England
- The sites sell electricity and capacity into the ISO New England market
- Consistent performing assets with long operating history
- Sell Class I RECs under the Massachusetts RPS
- Fuel was uncontracted but robust market and long history of purchases and pricing

Marketing Process

- Broad process
- Received 10+ proposals

Process Outcome

- Sold to a strategic buyer, an IPP with an interest in waste to energy
- Transaction closed at a time of significant turmoil in financial markets

Case Study:

Financing Wood Fired Electric Facility (pending)

Biomass Development
Company

has engaged

EWING BEMISS & CO.

INVESTMENT BANKERS

to pursue a capital raise for financing
of a 26 MW biomass facility

Situation

- Financing for a 26MW wood fired electric facility located in Georgia
- Developer owned key equipment (used)
- Significantly all permits in place
- Power purchase agreement with 100% fuel cost pass through
- EPC contract for fixed price with credit support
- Will qualify for ARRA cash grant

Marketing Process

- Broad process
- Received 3+ proposals

Process Outcome

- Found private equity group willing to provide 100% of financing
- Project will be funded with all equity through COD
- Set to begin construction in May 2010

Keys to Financing Success

- Strong **offtake** agreement to sell power, fuel, or pellets
 - Long term contract with credit worthy counterparty
 - Fuel cost pass through a significant advantage
- Attractive **economics**
 - Project must be able to support debt payments and provide sufficient return for equity investors
- Well designed **fuel** strategy
 - Contracted, captive, or hedged fuel supply is critically important
 - Investors are unwilling to take fuel price risk
- High quality **engineering** and **construction** partners and contracts
 - Technology risk limits investor base
 - Credit quality of partners is paramount to obtaining construction financing
- Advanced project **development**
 - Lack of permits or site control will limit financing options available
 - Projects should be as close to “shovel ready” as possible

Current Energy Transactions

Pending

Sale	Sale of a clean energy development company with 85 megawatts of near-term potential
Sale	Sale of two high-btu landfill gas projects
Capital Formation	Equity raise for a leading global developer of biomass projects
Capital Formation	Equity and debt raise for a 26 megawatt biomass facility in the Southeast U.S.

In the Market

Sale	Sale of medium btu landfill gas-to-energy portfolio
Capital Formation	Equity and debt raise for the development of a biosolids-fired power plant
Capital Formation	Debt raise for a 14 megawatt wood waste fueled renewable energy power plants
Capital Formation	Equity raise for biomass developer with three near term projects
Capital Formation	Capital raise for the development of a landfill gas to energy portfolio
Capital Formation	Equity and debt raise for the development of geothermal power facilities located on depleted gas and oil wells

Pre-Marketing

Capital Formation	Tax equity raise for utility scale solar thermal project
Capital Formation	Equity raise for a wind turbine developer

Questions or follow up

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