Pacific Rim Summit
Industrial Biotechnology and Bioenergy
San Diego

Perspectives on Finance and Construction

December 9, 2013
Stern Brothers – Alternative Energy Finance Group

**Myriant**
$25,000,000
Myriant Lake Providence Inc.
Revenue Bonds
$15.0 Mil. USDA Guaranteed Bonds
$10.0 Mil. Unguaranteed Bonds
Series 2012
Sole Placement Agent

**UTS**
$23,330,000
California Municipal Finance Authority
Revenue Bonds
(UTS Renewable Energy Wastewater Facilities Financing Program)
Series 2011
Senior Placement Agent

**The Bowersock Mills & Power Co.**
$23,815,000
City of Lawrence, Kansas
Recovery Zone Facility Bonds, Qualified Energy Conservation Bonds, Industrial Revenue Bonds
The Bowersock Mills & Power Company
Series 2010 and Series 2011
Sole Placement Agent

**Pennsylvania Economic Development Financing Authority**
$65,000,000
Senior Exempt Facilities Revenue Bonds
Bionol Clearfield LLC Ethanol Project
Series 2008
Sole Placement Agent

**Illinois Finance Authority**
$30,000,000
Subordinate Solid Waste Disposal Facility Revenue Bonds
Illinois River Energy LLC Ethanol Project
Series 2007
Sole Placement Agent

**Biofuels Company of America**
$29,600,000
Biodiesel Manufacturing Facility
Senior Secured Credit Facilities
$15,000,000
Illinois Finance Authority
Agribusiness Loan Guarantee
Sole Arranger 2006

**Sexton Energy LLC**
$7,500,000
Illinois Finance Authority
Variable Rate Demand Revenue Bonds
Sexton Energy LLC
Series 2003
Sole Placement Agent
Typical Project Finance Structure

- Equity Investors
- Sponsor’s Equity
- Project Level Equity Investors
- Senior Project Debt Providers

Project Company (Borrower)

- Feedstock Agreements
- Technology License Agreements
- EPC Contract (construct)
- O&M Agreement
- Off-take Agreements

SternBrothers&Co.
Ultimate objective of Sponsors is to maximize non-recourse debt while providing adequate equity to protect project debt investors

- Trade-off between time, cost and optimization of other Sponsor objectives
- Decisions reflected in economic terms of deal (interest rate, term, reserves, leverage, covenants, etc.)

**Role of Government**
- Tax policies, guaranty, loans/grants, etc.

**Feedstock Supply**
- Term, price and volume, hedging strategy (caps / collars)
- No diversion
- Adequate on-site storage

**Off-take Agreement**
- Volume commitment
- Price – Pricing formula vs. Merchant strategy vs. Tolling agreement
- Adequate storage and transportation infrastructure

**Technology Risks**
- Commercialized technology reduces investor risk
- Independent engineer’s report validating process
Sponsor Objectives and Risk Mitigation

Construction Risks
- Fixed price, date certain, turnkey EPC contract with liquidated damages
- Completion guarantee by Sponsors
- Payment and performance bond or stand-by letter of credit

Operations Risks
- O&M contract with efficiency bonus provisions
- Adequate Operating and Maintenance Reserve Accounts

Economic Performance
- Generates good debt service coverage under stress scenarios
- Stable project returns, with potential for additional upside
- Adequate Debt Service Reserve Account

Sponsors & Management
- Ability of Sponsors to provide completion guarantees
- Adequate working capital
- Continuity of senior management

Risk Management Policies
- Must assess competitive positioning
- Must assess market risk, commodity hedging strategies, currency risk
Technology Risk Mitigation

Credit Enhancement via Government Guaranty

- USDA 9003 for Advanced Bio-Refineries
- DOE program

Insurance

- Insurance/warranties on parts, availability and general failure relating to technology
- Extended warranties for repeated failures and product defects
- Insuring the performance curve
- Availability

Guaranty from a Credit-worthy Counterparty (some recourse)

- Parent
- Technology provider
SOUND PROJECT ECONOMICS
Leads to Adequate Debt Service Coverage
And Acceptable Equity Returns

Sponsors
 Experienced & financially strong investors with demonstrated track record of investing & operating similar projects. Ability to provide financial support to Project.

Construction Risks
 Fixed price, date certain, turnkey EPC contract with liquidated damages. Completion guarantee by Sponsors.

Market Risk Assessment

Feedstock Supply
 Adequacy of available feedstock. Long-term quantity supply agreement. Long-term fixed price supply agreement (or at least a price ceiling). Adequate on-site storage.

Management
 Strong managerial, financial, operational, & technical capabilities with demonstrated track record of implementing similar projects. Continuity of senior management.

Technology Risk / Feasibility
 Perpetual technology licenses and performance warranties. Technology / project feasibility reviewed by Independent engineer.

Operations Risks
 O&M contract with efficiency bonus provisions. Adequate Maintenance Reserve Account.

Offtake
 Long-term quantity offtake agreement. Long-term fixed price offtake agreement (or at least a price floor). Adequate storage & transportation infrastructure.
Sources of Funds

- **Equity Investors** – Sponsor(s) provide initial cash investment → Receive net profits generated by the project
  - Equity = 20 to 50% of project costs, depending on debt service coverage
- **Senior Project Debt Providers** – Commercial Banks(??) / Institutional Investors (QIBs) → Expect timely payment of interest and principal
- **Other Sources** – Government Grants and/or Loans

Uses of Funds

- **Construction Fund** – Used to pay construction costs
- **Capitalized Interest** – Used to pay interest during construction
- **Debt Service Reserve Fund** – Used to pay debt service if project revenues are insufficient to pay interest and principal
- **Other Reserves** – Maintenance, operating
- **Project ‘Soft’ Costs** – Used to pay for land, engineering, environmental studies, feedstock study, independent engineer’s report, other development costs
- **Legal and Financial Costs**

Working Capital

- Working capital line to fund operations – In place or funded by sponsor at financial close
Questions

Lester H. Krone
Managing Director
Co-Head, Alternative Energy Finance Group
Stern Brothers & Co.

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Private Placement Memorandum

PPM Outline

– Introduction to the Project and the Bond Financing
– Description of the Project
– Sources and Uses of Funds
– Description of the Bonds
– Security and Sources of Payment for the Bonds
– Risk Factors
– Litigation
– Placement of the Bonds
– Annual Information Disclosure (Operating and Financial)
– Miscellaneous
– Appendices

  ** Dataroom

• Appendix A – Description of the Project
• Appendix B – Project Operating Model **
• Appendix C – Independent Engineer’s Report **
• Appendix D – Feedstock Study **
• Appendix E – CNG/LNG Market Study **
• Appendix F – Document Summaries (Bonds, Feedstock, Off-take, EPC, O&M, etc.)**
• Appendix H – Book-Entry Only / Form of Legal Opinions
• Appendix I – Form of Investment Letter
Independent Engineer’s Report

IE Report Outline

• Summary and Background of the Project
• Detailed Project Description
• Licensing and Permitting Review
• Analysis of Project Costs and Schedule
• Review of Major Project Agreements (Feedstock, off-take, EPC, etc.)
• Technical Review of the Project
• Environmental Assessment – Reports and Permits
• Review of the Project Financing Operating Model (ties management cash flow projections to cap ex, revenue assumptions [from feedstock and market studies] and cost assumptions)
• Conclusions

SternBrothers&Co.
Project Finance Waterfall

Cash Flow Waterfall – Administered by the Trustee

- Cash flows into Revenue Account (cash transfer from Construction Account at COD + all project cash flow)
- 1) Cash transferred to the Operating Account (pays operating expenses)
- 2) Cash transferred to Trustee, Servicing Agent, Collateral Agent, Accounts Bank to pay servicing fees
- 3) Cash transferred to pay Debt Service (Interest and Principal) on Senior Debt
- 4) Cash transferred to fill Working Capital Reserve Account, if needed
- 5) Cash transferred to fill Debt Service Reserve Account, if needed
- 6) Cash transferred to pay Debt Service (Interest and Principal) on Subordinated Debt
- 7) Cash transferred to pay Permitted Tax Distributions
- 8) Cash held in Covenant Compliance Holding Account (If certain coverage ratios are not met) or distributed to project sponsors
### Case Study – Project Finance Credit Quality

**Topaz Solar Project (2012)**

- **Project:** 586 MW, $2.44 billion project, Leverage = 50% **non-recourse** senior debt
- **Sponsor:** MidAmerican Energy Holdings (BBB+)
  - Sub of Berkshire Hathaway (AA-)
- **Equity:** Minimum equity contribution $1.2 billion (50%)
  - Contingent equity, as needed, to fund construction up to total of $2.44 billion
- **EPC:** First Solar, fixed price, date certain, milestone payments, LDs, incentives, etc.
  - Construction contingency = 44% of non-fixed costs
- **Technology:** Cadmium telluride thin film, “...proven technology, 15 years of history...”*
- **PPA:** PG&E (BBB), 25-year, fixed price, “...PPA contains well above market pricing...”*
- **Op. Reserve:** Six months of operating expenses
- **DSCR:** 1.3x to 1.6x under various stress scenarios
- **Rating:** S&P (BBB-), Moody’s (Baa3), Fitch (BBB-)

* S&P Report (9/17/2012)
The Stern Brothers & Co. Alternative Energy Finance Group focuses on the structuring and placement of debt for projects across all sectors of the industry. The Firm specializes in the use of tax-exempt and taxable bonds to optimize the debt structure and equity returns of developers seeking non-recourse project financings.

Stern Brothers & Co. pioneered the use of tax-exempt bonds as an alternative to bank debt in the biofuels and landfill gas areas. The Firm has expanded its practice to include projects in biomass, wind, solar, and waste-to-energy using taxable bonds as a source of leverage for developers in these markets. The Firm is also acting as a Financial Advisor to companies seeking project equity and joint venture partners.

The Stern Brothers & Co. practice is experiencing rapid growth as developers continue to have access to a limited number of lenders, and face financing terms that are not aligned with the needs of large scale project financings of long lived assets. Effective market-making activities designed to bring new lenders of more patient capital will continue to be seen as a value-added service.

The structuring and execution experience developed over the past several years will continue to place Stern Brothers at the forefront of renewable energy finance. The ethanol and biodiesel industries will be succeeded by cellulosic and alternative feedstock technologies, and the Firm’s practice will be well-positioned to continue to find debt capital for these projects in the future. Stern’s success in structuring and placing debt for biofuels will enable it to secure debt from these classes of lenders and investors for projects in other areas in the cleantech space.

Stern Brothers has developed a national reputation as a thought leader on alternative energy finance. Our bankers have formed substantive relationships with many of the most important stakeholders in the industry. These relationships include those with EPC contractors, technology providers, state and federal government officials, national lobbying and industry trade groups, major Midwestern and New York commercial banks, bond funds and other institutional lenders, individual and institutional equity sources, and law firms and consultants serving the industry. Our bankers are also routinely tapped by conference organizers and media outlets covering the renewable arena as speakers on issues of importance to the industry.
Alternative Energy Finance Group – The Specifics

- Focused on structuring and placing tax-exempt and taxable debt and providing financial advisory services for renewable energy projects in the U.S.
  - Second generation biofuels, biomass, solar, wind, waste-to-energy, landfill gas-to-energy, cogen, CHP, hydro, geothermal

- Renewable energy developers have limited access to traditional sources of bank debt.
  - Bonds can be sole source of debt or a complement to bank debt
  - Bonds offer structural advantages (longer tenor, lower interest rate, flexible amortization) that improve equity returns

- Structuring and execution experience placing debt for biofuels and biomass projects.
  - Pipeline currently includes advanced biofuels, biomass, waste-to-energy, and LFG

- Representative client relationships with projects in 2013 pipeline include - Chemtex International, Enerkem, Fiberight, Fulcrum Bioenergy, TerViva, Zilkha, Gulf Coast Spinning, RTS, Sterling Energy Group and Roeslein Alternative Energy.
Locations
Atlanta
Chicago
Cleveland
Dallas
Denver
Detroit
Houston
Kansas City
Los Angeles
Reno
San Francisco
St. Louis (HQ)
Seattle
Tampa
# Current Projects

## Cellulosic Ethanol Production Plant (USDA 9003)

**Project:** 10.0 mil gal/yr cellulosic ethanol from municipal solid waste project in the West  
**Total Capital:** $264 mil (Construction fund + COI)  
**Senior Debt:** $105 mil ($94.5 mil gtd by USDA 9003 loan gty)  
**Technology:** Gasification & catalytic alcohol synthesis-commercial gasification system, commercial scale alcohol synthesis reactor reviewed and data validated by RW Beck  
**Feedstock:** Long-term contracted MSW from large waste companies  
**Construction:** Wrapped EPC with top 100 US contractor  
**DSRF:** $10.8 mil

## Enhanced Wood Pellet Plant

**Project:** 275,000 ton wood pellet project in southeast US  
**Total Capital:** $41.5 mil (Construction fund + COI)  
**Senior Debt:** $25 mil tax-exempt solid waste revenue bonds  
**Technology:** Thermal treatment of wood fiber to enhance energy density and other characteristics for export markets  
**Feedstock:** Wood fiber including thinning and residuals from a strong wood basket, with potential aggregation of fiber by large timber REIT.  
**Off-take:** Long-term contract with UK utility converting coal plant under a contract-for-difference regime  
**Construction:** Retrofit of existing wood pellet plant. Owner self-perform with traditional market style LDs from credit worthy counterparty  
**DSRF:** $2.5 mil

## Asphalt Shingle Recycling Plant

**Project:** 200 ton/day asphalt shingle recycling facility in Midwest  
**Total Capital:** $25 mil (Construction fund + COI)  
**Senior Debt:** $15 mil tax-exempt solid waste revenue bonds  
**Technology:** Solvent based oil extraction technology widely used in other applications  
**Feedstock:** Waste roofing shingles from waste haulers, contractors, and shingle manufacturers  
**Off-take:** Short and medium term contracts for volume with ability to hedge against highly correlated WTI  
**Construction:** Separate equipment and construction contracts, GMP with LDs for schedule and performance  
**DSRF:** $1.5 mil

## Anaerobic Digestion Project

**Project:** Anaerobic digestion project located in the Midwest produces pipeline quality CNG as well as environmental credits  
**Total Capital:** $115 mil (Construction fund + COI)  
**Senior Debt:** $80 mil (combination of taxable and tax-exempt debt)  
**Technology:** AD technology provided by international infrastructure provider that will also provide O&M for the project  
**Feedstock:** Long-term contract with Fortune 500 packaged food producer  
**Off-take:** Long-term contracts with large truck, rail and marine fleets  
**Construction:** By technology provider with performance wrap  
**DSRF:** One-year principal and interest
## Current Projects

### Cellulosic Ethanol Production Plant (USDA 9003)

<table>
<thead>
<tr>
<th>Project:</th>
<th>Cellulosic ethanol from municipal solid waste project in the Midwest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital:</td>
<td>$55 mil (Construction fund + COI)</td>
</tr>
<tr>
<td>Senior Debt:</td>
<td>$25 mil ($20 mil gtd by USDA 9003 loan gty)</td>
</tr>
<tr>
<td>Technology:</td>
<td>Demo plant producing cellulosic ethanol from MSW</td>
</tr>
<tr>
<td>Feedstock:</td>
<td>Long-term contracted MSW from local municipalities</td>
</tr>
<tr>
<td>Off-take:</td>
<td>Long-term contract with TBD</td>
</tr>
<tr>
<td>Construction:</td>
<td>Wrapped EPC with top 100 US contractor</td>
</tr>
<tr>
<td>DSRF:</td>
<td>$2.5 mil</td>
</tr>
</tbody>
</table>

### Power Plant Repowering Project

<table>
<thead>
<tr>
<th>Project:</th>
<th>Repower 50MW Midwest coal-fired power plant with natural gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital:</td>
<td>$35 - $40 mil</td>
</tr>
<tr>
<td>Senior Debt:</td>
<td>$25 - $30 mil tax-exempt debt</td>
</tr>
<tr>
<td>Technology:</td>
<td>Conventional gas-fired turbines</td>
</tr>
<tr>
<td>Feedstock:</td>
<td>Natural gas from 24” natural gas pipeline adjacent to the site</td>
</tr>
<tr>
<td>Off-take:</td>
<td>Long-term contract with investment grade rated Midwest municipal power authority with fuel price pass-through</td>
</tr>
<tr>
<td>DSRF:</td>
<td>One-year principal and interest</td>
</tr>
</tbody>
</table>

### Cellulosic Ethanol Production Plant (USDA 9003)

<table>
<thead>
<tr>
<th>Project:</th>
<th>Cellulosic ethanol from biomass/purpose-grown energy crops in the Southeast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital:</td>
<td>$195 mil (Construction fund + COI)</td>
</tr>
<tr>
<td>Senior Debt:</td>
<td>$99 mil ($79.2 mil gtd by USDA 9003 loan gty)</td>
</tr>
<tr>
<td>Technology:</td>
<td>Enzymatic process breaks down biomass to produce low cost sugar which is processed to ethanol, commercial plant has started operations in Europe</td>
</tr>
<tr>
<td>Feedstock:</td>
<td>Long term contracts with energy crop growers</td>
</tr>
<tr>
<td>Off-take:</td>
<td>Long-term contract with large oil company</td>
</tr>
<tr>
<td>Construction:</td>
<td>Wrapped EPC with top 100 US contractor</td>
</tr>
<tr>
<td>DSRF:</td>
<td>One-year principal and interest</td>
</tr>
</tbody>
</table>

### Yarn Spinning Plant

<table>
<thead>
<tr>
<th>Project:</th>
<th>1.4 mil lb/week cotton and synthetic yarn spinning facility in Southeast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital:</td>
<td>$145 mil (Construction fund + COI)</td>
</tr>
<tr>
<td>Senior Debt:</td>
<td>$100 taxable note</td>
</tr>
<tr>
<td>Technology:</td>
<td>State of the art ring spun and open end yarn spinning equipment from Europe. Project designed at scale and with energy efficiencies and power supply agreement to be a low cost provider globally</td>
</tr>
<tr>
<td>Feedstock:</td>
<td>Strong cotton catchment area for a global commodity</td>
</tr>
<tr>
<td>Off-take:</td>
<td>Anchor agreement with large, 140 year old private company for approximately 30% of open end capacity on a tolling basis (5 years with 3 year evergreens); additional off-takes anticipated with a portion of production on a merchant basis.</td>
</tr>
<tr>
<td>Construction:</td>
<td>GMP EPC with bonded contractor and market LDs for Schedule and performance</td>
</tr>
<tr>
<td>DSRF:</td>
<td>10% of par</td>
</tr>
<tr>
<td><strong>Biomass Gasification to Biofuels Project</strong></td>
<td><strong>Landfill Gas Portfolio</strong></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td><strong>Project:</strong> Produce renewable biofuels from biomass</td>
<td><strong>Project:</strong> Portfolio of Landfill gas projects</td>
</tr>
<tr>
<td><strong>Total Capital:</strong> $200 mil (Construction fund + COI)</td>
<td><strong>Project Capital:</strong> $15mil (per project)</td>
</tr>
<tr>
<td><strong>Senior Debt:</strong> Up to $125 mil (combination of taxable and tax-exempt debt)</td>
<td><strong>Senior Debt:</strong> $8-$10 Million tax-exempt bonds per project</td>
</tr>
<tr>
<td><strong>Technology:</strong> Gasification (with insurance company technology wrap)</td>
<td><strong>Technology:</strong> Standard landfill gas capture and cleaning</td>
</tr>
<tr>
<td><strong>Feedstock:</strong> Woody biomass (with feedstock supply chain insurance)</td>
<td><strong>Feedstock:</strong> Methane from landfills</td>
</tr>
<tr>
<td><strong>Off-take:</strong> Long-term with investment grade rated oil company</td>
<td><strong>Off-take:</strong> Parent company purchases all off-take at index price of commodity</td>
</tr>
<tr>
<td><strong>DSRF:</strong> One-year principal and interest</td>
<td><strong>Construction:</strong> Owner self-perform with typical security package.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Wood Pellet Plant</strong></th>
<th><strong>Cellulosic BioFuels Project</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project:</strong> 375,000 mT/year wood pellet project in Southeast US</td>
<td><strong>Project:</strong> Proven Technology Bringing Second-Generation Cellulosic BioFuels to Market</td>
</tr>
<tr>
<td><strong>Total Capital:</strong> $56 mil</td>
<td><strong>Total Capital:</strong> $80 mil</td>
</tr>
<tr>
<td><strong>Senior Debt:</strong> $32 mil</td>
<td><strong>Senior Debt:</strong> $TBD mil (with approx. 80% gtd by USDA 9003 loan gty)</td>
</tr>
<tr>
<td><strong>Technology:</strong> TBD</td>
<td><strong>Technology:</strong> Proprietary technology to convert wood residues or other cellulosic material into a renewable liquid fuel</td>
</tr>
<tr>
<td><strong>Feedstock:</strong> Source dry planer shavings/sawdust from tie and mat mills</td>
<td><strong>Feedstock:</strong> Contracts for commercial thinnings with partner</td>
</tr>
<tr>
<td><strong>Off-take:</strong> In negotiation for long term off-take agreement with European power company</td>
<td><strong>Off-take:</strong> TBD</td>
</tr>
<tr>
<td><strong>Construction:</strong> TBD</td>
<td><strong>Construction:</strong> Wrapped EPC with top 100 US contractor</td>
</tr>
<tr>
<td><strong>DSRF:</strong> TBD</td>
<td><strong>DSRF:</strong> TBD</td>
</tr>
</tbody>
</table>
## Potential Assignments

### Gas-to-liquids Technology

<table>
<thead>
<tr>
<th>Project</th>
<th>Commercialization of specialized gas-to-liquids technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital:</td>
<td>TBD</td>
</tr>
<tr>
<td>Senior Debt:</td>
<td>TBD</td>
</tr>
<tr>
<td>Technology:</td>
<td>Proprietary and proven technology to produce gas from stranded natural gas and associated natural gas at the wellhead</td>
</tr>
<tr>
<td>Feedstock:</td>
<td>Partner with oil companies who are currently flaring ANG</td>
</tr>
<tr>
<td>Off-take:</td>
<td>TBD</td>
</tr>
<tr>
<td>Construction:</td>
<td>TBD</td>
</tr>
<tr>
<td>DSRF:</td>
<td>TBD</td>
</tr>
</tbody>
</table>

### Woody Biomass to Power

<table>
<thead>
<tr>
<th>Project</th>
<th>28MW biomass to power generating station</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital:</td>
<td>$100 mil</td>
</tr>
<tr>
<td>Senior Debt:</td>
<td>$50 mil</td>
</tr>
<tr>
<td>Technology:</td>
<td>Project will utilize a bubbling fluidized bed boiler and a steam turbine generator</td>
</tr>
<tr>
<td>Feedstock:</td>
<td>Partner with sole provider of wood feedstock</td>
</tr>
<tr>
<td>Off-take:</td>
<td>20-Year Power Purchase Agreement with top 10 investor-owned utility</td>
</tr>
<tr>
<td>Construction:</td>
<td>Built under a GMP EPC with top 100 US contractor</td>
</tr>
<tr>
<td>DSRF:</td>
<td>TBD</td>
</tr>
</tbody>
</table>

### Wood Pellet Plant

<table>
<thead>
<tr>
<th>Project</th>
<th>200,000 tonnes per year pellet project in Southeastern US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital:</td>
<td>$90 mil (Construction fund + COI)</td>
</tr>
<tr>
<td>Senior Debt:</td>
<td>$63mil (Combination of taxable and tax-exempt bonds)</td>
</tr>
<tr>
<td>Technology:</td>
<td>Proprietary Joint Venture technology</td>
</tr>
<tr>
<td>Feedstock:</td>
<td>Deliver or Pay contract with well known suppliers</td>
</tr>
<tr>
<td>Off-take:</td>
<td>Major European Utilities with 10-year take or pay contract</td>
</tr>
<tr>
<td>Construction:</td>
<td>Owner self perform with typical security package</td>
</tr>
<tr>
<td>DSRF:</td>
<td>TBD</td>
</tr>
</tbody>
</table>

### Woody Biomass to Power Project

<table>
<thead>
<tr>
<th>Project</th>
<th>42MW biomass to power generating station partnered with one of the world’s largest multinational consumer goods companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capital:</td>
<td>$190 mil</td>
</tr>
<tr>
<td>Senior Debt:</td>
<td>TBD</td>
</tr>
<tr>
<td>Technology:</td>
<td>Alternative boiler technologies: circulating fluidized bed boiler and turbine generator</td>
</tr>
<tr>
<td>Feedstock:</td>
<td>Wood Feedstock from forest harvest operations and manufacturing residue contracts to be completed.</td>
</tr>
<tr>
<td>Off-take:</td>
<td>20 year contract for sale/purchase of both capacity and energy with state power company (A/A3) with both a fully indexed energy payment and fixed escalated capacity payment</td>
</tr>
<tr>
<td>Construction:</td>
<td>Built under a GMP EPC with qualified contractor</td>
</tr>
<tr>
<td>DSRF:</td>
<td>TBD</td>
</tr>
</tbody>
</table>
# Potential Assignments

## MSW Recycling Plant

- **Project:** 200 ton/day MSW recycling facility in Mid-Atlantic
- **Total Capital:** $13 mil (Construction fund + COI)
- **Senior Debt:** $TBD tax-exempt solid waste revenue bonds, with up to 40% credit enhanced by AA rated county moral obligation
- **Technology:** Separation of waste plastics by proprietary “fractionation tower” with commercial scale demonstration unit in operation.
- **Feedstock:** MSW provided by the County
- **Off-take:** Multiple products (RDF, construction aggregate, recycled commodities) under long-term contract
- **Construction:** EPCM from a top North American EPC firm. Bonded GC for vertical construction; equipment providers with varying levels of performance guarantees on individual systems
- **DSRF:** TBD

## n-butanol Bolt-on to Ethanol Plant

- **Project:** 54 Million Gallons/year of n-butanol from ethanol
- **Total Capital:** $180 M
- **Senior Debt:** $TBD
- **Technology:** Proprietary catalytic technology that converts ethanol into n-butanol
- **Feedstock:** Ethanol from project owned plant or sourced from market
- **Off-take:** TBD
- **Construction:** TBD
- **DSRF:** TBD
John M. May, Managing Director, is Head of the firm’s Renewable Energy Practice, which he founded in 2003. He is a seasoned project finance investment banker who has financed over $1 billion in loan and par values for over 100 clients in his 20-year banking career.

In the past five years, he has become one of the top renewable energy bankers in the country, having developed a national practice in renewable energy finance focusing on biofuels, biomass and bio-products. He is credited with having pioneered the use of bonds as a form of project finance debt in the renewables market. He is financial advisor to numerous renewable companies and has placed senior and subordinated debt financing for new projects, expansions and acquisitions. He has also been placement agent to companies raising debt through the issuance of tax-exempt and taxable bonds. In 2003, he underwrote the country’s first tax-exempt bond issue to fund a landfill gas-to-electricity project. In 2005, he was responsible for developing one of the first tax-exempt bond structures sold to major U.S. institutional investors to fund ethanol projects. He was the first banker to use a State guarantee of debt for a biofuel financing. In 2006, he secured a $15 million full faith and credit guarantee from the State of Illinois for a biodiesel project. Also in 2006, he introduced the use of bonds as a complement to syndicated bank debt in large biofuels financings. In 2008, he was placement agent for bonds used to finance the first U.S. ethanol plant with an off-take agreement from a major international oil company. In 2010, he created the bond finance structure adopted by the USDA in its Bio-Refinery Loan Guarantee Program; this resulted in the Agency’s adoption of a new Interim Final Rule for the program in 2011. He currently represents eight biofuels, biomass and biochemical companies applying for various USDA loan guarantees. He has been involved in financing renewable projects in ten states. He has developed Stern’s national practice into one of the most recognized brands in the financing of biofuels in the U.S.

He is a frequent speaker at national conferences and webinars in the industry for such sponsors as: ACORE, Infocast, Advanced Biofuels Association, Platts, Projects and Money, CDFA, The National Governor’s Association and the American Bar Association. He has provided counsel on financing options and the credit markets to such government and association industry stakeholders as the USDA, the Staff of the U.S. House Agriculture Committee, the U.S. Department of Energy/NREL, and the United States Congress Joint Committee on Taxation. He has been featured in recent articles on biofuels finance authored or sponsored by Biofuels Journal, Biofuels Digest and Biorefining Magazine and published on Grainnet.com. In 2011, he was elected to the Advisory Board of the Rockefeller Brothers Fund’s Climate Prosperity Partnership. In 2012, John was voted as one of the “Top 100 People in Bioenergy 2012” by the readers of Biofuels Digest. Mr. May also is a member of the Board of Directors of the Donald Danforth Plant Science Center's BRDG Park.

Prior to beginning his investment banking career, John practiced law at two national firms in Kansas City and Dallas. He received his J.D. and M.B.A. (with Concentration in Finance) degrees from the University of Kansas, and his B.A. With Honors Cum Laude from Brown University.
Lester H. Krone, Managing Director

Lester H. Krone, who joined Stern Brothers & Co. in 2009, is a Managing Director in the Firm’s Alternative Energy Finance group. Prior to joining Stern Brothers he was a Managing Director in the Energy & Power Investment Banking group at Wachovia Securities. He began his investment banking career at A.G. Edwards & Sons, Inc. in 1987 where he was a Managing Director and Head of the Utility Group from 1992 to 2007. He successfully initiated and directed all aspects of A.G. Edwards investment banking practice in the investor-owned utility industry, bringing innovative solutions to over 70 electric, gas, water and alternative energy companies. Les advised senior management teams and Boards of Directors on strategic issues including capital structure, mergers and acquisitions, and capital formation.


- 60 equity offerings ($9.8 Billion), including 18 lead-managed transactions
- In the alternative energy industry, A.G. Edwards was a co-manager on the initial public offerings for Verasun Energy, U.S. BioEnergy and BioFuel Energy in 2006 and 2007 that raised over $700 Million
- 79 retail debt and trust preferred offerings ($13.9 Billion), including 12 lead-managed transactions
- 39 institutional debt offerings ($4.7 Billion), including 9 lead-managed transactions
- 18 private placements and MTN programs ($1.5 Billion)
- 15 completed merger and acquisitions assignments

In addition, Les has spoken at national conferences for the American Gas Association, the National Association of Water Companies, NARUC and the American Public Gas Association.

Prior to beginning his investment banking career, Les was a structural engineer who designed corporate, institutional and high-rise commercial real estate projects for Fortune 1000 companies, major institutions and commercial real estate developers. He received an M.B.A. from Harvard Business School, an M.S. in Civil Engineering from Washington University in St. Louis, and a B.S. in Architectural Engineering, with Honors, from the University of Colorado. He holds Series 7, 79 and Series 63 licenses, and is a registered professional engineer in Missouri.
James Dack, Vice President

James opened the firm’s Seattle office in March 2010. He brings a unique perspective to project finance, having participated as an investment banker, a developer and an equity sponsor deploying institutional capital in highly structured investments.

As an investment banker, his transactions have included fixed and variable rate bond transactions for renewable energy, multifamily housing, CCRCs and non-profit facilities using a variety of credit enhancement products. James has helped structure and close new market tax credit financings for mixed-use projects and community facilities. He has also worked on subordinate financings employing program-related investments and other below market rate investments that provide gap funding to worthy but hard-to-finance projects.

James earned his masters of Public Administration from the Evans School of Public Affairs at the University of Washington, where he focused on environmental policy and finance. He also holds a Bachelor of Arts in Economics from Claremont McKenna College.
Gina joined the St. Louis Alternative Energy group in March 2013. She brings diverse experiences in management consulting and entrepreneurship with her.

Gina spent 10 years as a Senior Manager in the Management Consulting Group of Ernst & Young solving some of the problems of the world’s largest companies. She lead projects focused on people, process, and technology at companies in the life sciences, financial, consumer products, and telecommunication industries.

Gina has been involved in the successful launches of a number of entrepreneurial start-ups including a consumer products company, multiple residential and commercial real estate management and holding companies, a technology consulting and tax service organization, and a commercial corn and soybean farming operation.

Gina earned her Masters in Business Administration from the University of Michigan with focuses in Finance and Real Estate. She also holds a Bachelors in Business Administration from Washington University with a concentration in Accounting. She is a licensed CPA.
Selected Transactions

- **Myrian**: $25,000,000
  Myrian Lake Providence Inc.
  Revenue Bonds
  $15.0 Mil. USDA Guaranteed Bonds
  $10.0 Mil. Unguaranteed Bonds
  Series 2012
  Sole Placement Agent

- **UTS**: $23,330,000
  California Municipal Finance Authority
  Revenue Bonds
  (UTS Renewable Energy Wastewater Facilities Financing Program)
  Series 2011
  Senior Placement Agent

- **The Bowersock Mills & Power Co.**: $23,815,000
  City of Lawrence, Kansas
  Recovery Zone Facility Bonds, Qualified Energy Conservation Bonds, Industrial Revenue Bonds
  The Bowersock Mills & Power Company
  Series 2010 and Series 2011
  Sole Placement Agent

- **Pennsylvania Economic Development Financing Authority**: $65,000,000
  Senior Exempt Facilities Revenue Bonds
  Bionol Clearfield LLC Ethanol Project
  Series 2008
  Sole Placement Agent

- **Illinois Finance Authority**: $30,000,000
  Subordinate Solid Waste Disposal Facility Revenue Bonds
  Illinois River Energy LLC Ethanol Project
  Series 2007
  Sole Placement Agent

- **Biofuels Company of America**: $29,600,000
  Biodiesel Manufacturing Facility
  Senior Secured Credit Facilities
  $15,000,000
  Illinois Finance Authority
  Agribusiness Loan Guarantee
  Sole Arranger 2006

- **Sexton Energy LLC**: $7,500,000
  Variable Rate Demand Revenue Bonds
  Sexton Energy LLC
  Series 2003
  Sole Placement Agent
<table>
<thead>
<tr>
<th><strong>Myriant Lake Providence Inc. (2012)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project:</strong></td>
</tr>
<tr>
<td><strong>Feedstock:</strong></td>
</tr>
<tr>
<td><strong>Off-take:</strong></td>
</tr>
<tr>
<td><strong>Construction:</strong></td>
</tr>
<tr>
<td><strong>Debt Funding:</strong></td>
</tr>
<tr>
<td><strong>Highlights:</strong></td>
</tr>
</tbody>
</table>
## UTS BioEnergy, LLC (2011)

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project:</strong></td>
<td>Financed the installation of fuel cells at the City of San Jose and Inland Empire Utility Agency’s regional wastewater treatment plants to generate 1.40 MW and 2.80 MW of power respectively</td>
</tr>
<tr>
<td><strong>Off-take:</strong></td>
<td>20 year Power Purchase Agreement with the City of San Jose and the Inland Empire Utility Agency, which will purchase 100% of the capacity and energy generated</td>
</tr>
<tr>
<td><strong>Construction:</strong></td>
<td>Otto H. Rosentreter Co. (City of San Jose) and HDR Design-Build Inc. (Inland Empire Utility Agency)</td>
</tr>
<tr>
<td><strong>Funding:</strong></td>
<td>Solid Waste Disposal Bonds</td>
</tr>
<tr>
<td></td>
<td>Equity</td>
</tr>
<tr>
<td></td>
<td>$23.3 Million</td>
</tr>
<tr>
<td></td>
<td>$5.0 Million</td>
</tr>
<tr>
<td></td>
<td><strong>Total Funding</strong> $28.3 Million</td>
</tr>
<tr>
<td><strong>Highlights:</strong></td>
<td>The long term cost of capital is 6.33%. The Borrower anticipates that the project, as a renewable energy resource, will be eligible to receive a 1603 tax grant of approximately $8.04 million, and a SGIP grant through the California Public Utility Commission of approximately $13.05 million which will substantially de-lever the capital structure after the project is placed in service.</td>
</tr>
</tbody>
</table>
The Bowersock Mills & Power Company (2011)

| Project: | Financed the 4.70 MW expansion of the electrical generating capacity of the existing dam via the construction of a new powerhouse |
| Off-take: | 25-year power purchase agreement with the Kansas City Board of Public Utilities, which will purchase 100% of the capacity and energy generated |
| Construction: | Kissick Construction of Kansas City is the general contractor for the project |
| Funding: | Recovery Zone Facility Bonds $14.1 Million  
Qualified Energy Conservation Bonds $8.7 Million  
Industrial Revenue Bonds $1.0 Million  
Equity $0.4 Million  
Total Funding $24.2 Million |
| Highlights: | The long-term cost of capital, after taking into account the federal interest rate subsidies, is 6.70 percent. In addition, the Company anticipates that the project, as a renewable energy resource, will be eligible to receive a 1603 grant of approximately $4.9 million, which will substantially de-lever the capital structure after the project is placed in service. |
### Bionol Clearfield LLC (2008)

**Project:** 100 million gallon per year ethanol production facility in Clearfield, PA (in service 2010)

**Off-take:** Five-year ethanol purchase agreement with Getty Petroleum Marketing Co-product marketing agreement with Land O’ Lakes Purina Feeds

**Technology:** ICM, Inc. technology built under EPC contract by Fagen, Inc.

**Funding:**

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior tax-exempt bonds</td>
<td>$65.0 Million</td>
</tr>
<tr>
<td>Senior taxable bank debt</td>
<td>$110.0 Million</td>
</tr>
<tr>
<td>Second lien bank facility</td>
<td>$30.0 Million</td>
</tr>
<tr>
<td>State Grants</td>
<td>$15.9 Million</td>
</tr>
<tr>
<td>Equity</td>
<td>$43.1 Million</td>
</tr>
<tr>
<td><strong>Total Funding</strong></td>
<td><strong>$264.0 Million</strong></td>
</tr>
</tbody>
</table>

**Highlights:** Bank co-lead arrangers had key syndicate member drop out and asked Stern to structure and place the largest tax-exempt senior secured bond for ethanol in U.S. history in two months. Bond amortization did not begin until bank debt amortized and project was into merchant period. Tenor of debt was extended, blended rate was lowered, and IRR improved significantly.

Project: Refinance existing 50 million gallon per year ethanol production facility plant and financing of new 50 million gallon capacity located in Rochelle, IL (in service 2009)

Off-take: Merchant plant

Technology: ICM, Inc. technology built under EPC contract by Fagen, Inc.

Funding: Taxable senior bank debt $130.0 Million
Tax-exempt sub bonds $30.0 Million
Equity and State Grant $48.0 Million

Total Funding $208.0 Million

Highlights: Developer constrained by limit on senior bank debt. Stern retained to structure and place largest subordinated tax-exempt bond for U.S. ethanol plant and to bring in senior bank lead arranger. Bonds were not only lien but also time subordinated. Bond amortization did not begin until bank debt amortized. Tenor of debt was extended, blended rate was lowered, and IRR improved significantly.
# Biofuels Co. of America - Bunge of N.A. Principal Investor (2006)

**Project:** Finance 40 million gallon per year ethanol production facility plant in Danville, Illinois (in service 2008)

**Off-take:** Merchant plant

**Technology:** ICM, Inc. technology built under EPC contract by Fagen, Inc.

**Funding:**
- Taxable senior bank debt $24.6 Million
- Equity and State Grant $15.4 Million

| Total Funding | $40.0 Million |

**Highlights:** Stern retained by Bunge to build its first biodiesel facility in North America. Stern structured and placed bank debt with Fifth Third Bank. $15 million of senior debt was secured in first-ever State balance sheet guaranty in U.S. Effect of guaranty was to improve rate, tenor, amortization and covenants for Bunge beyond what it had been offered by banks in its loan syndicate. IRR improved significantly.
## Sexton Energy LLC Projects (2003-4)

<table>
<thead>
<tr>
<th>Project:</th>
<th>Finance two separate landfill gas to electricity projects in suburban Chicago (in service 2004-05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-take:</td>
<td>Electricity sold to ComEd under PPA as required by PURPA</td>
</tr>
<tr>
<td>Technology:</td>
<td>GE / Jenbacher technology built under EPC contract by GE</td>
</tr>
<tr>
<td>Funding:</td>
<td>Tax-exempt senior bond debt $7.5 Million (2003 Project)</td>
</tr>
<tr>
<td></td>
<td>Tax-exempt senior bond debt $3.5 Million (2004 Project)</td>
</tr>
<tr>
<td></td>
<td>Equity and State Grant $4.0 Million</td>
</tr>
<tr>
<td></td>
<td>$15.0 Million</td>
</tr>
<tr>
<td>Highlights:</td>
<td>Stern retained by nationally known waste hauler and landfill owner operator to finance first methane to electricity projects. Stern structured and placed the first tax-exempt bonds used to finance LFGTE projects in U.S. Stern also secured letter of credit from Fifth Third Bank. Bonds sold as variable rate demand bonds in seven-day mode. This resulted in all-in cost of capital under 6% and improved IRR significantly. Stern asked by EPA Landfill Methane Outreach program to present white paper on innovative financing at conference in January, 2004.</td>
</tr>
</tbody>
</table>