Project Financing Considerations

May 14, 2013
Agenda

1) Project Finance Fundamentals
2) Project Finance Execution
3) Stern Brothers & Co. – Alternative Energy Finance Group
Project Finance Fundamentals

1) Current State of the Bank Market
2) Typical Project Finance Structure
3) Project Structure Mitigates Project Risk
4) Project Capitalization
5) Successful Financing Requires Systematic Approach
6) At Financial Close
Current State of the Bank Market

- New global capital rules and lower risk tolerances discourage banks from funding renewable energy projects
- New Basel rules will make it harder for banks to hold loans for large projects
- Renewable energy projects on a bank’s balance sheet = illiquidity + long tenor + (potential) technology risk
- Project equity is an important part of project capitalization → Project debt providers expect significant capital commitment from project sponsors
- The bond market and emerging market institutions are expected to replace traditional European and U.S. project finance banks
  - The capital market (the bond market) is also a source of capital to replace bank debt as long-lived project assets can be matched with long-lived liabilities.
  - MidAmerican Energy (Berkshire Hathaway) sold $850 million of senior unsecured debt (Baa3/BBB-) due 2039 to fund its $2.4 billion Topaz Solar project in California (Feb. 2012)
Typical Project Finance Structure

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

Project Company (Borrower)

- Feedstock Agreements
- Technology License Agreements
- EPC Contract (construct)
- O&M Agreement
- Offtake Agreements
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**
- Competitive positioning.
- Supply / demand forecasts.
- Competing suppliers.
- Government policies – tax and income.

**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
Successful Financing Requires Systematic Approach

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

Offtake
- Long-term quantity offtake agreement
- Long-term fixed price offtake agreement vs. Pricing formula (hedging strategy)
- Adequate storage and transportation infrastructure

Technology Risks
- Commercialized technology reduces investor risk
- Independent engineer’s report validating process
Successful Financing Requires Systematic Approach

**Construction Risks**
- Fixed price, date certain, turnkey EPC contract with liquidated damages
- Completion guarantee by Sponsors
- Insurance/warranties on parts, availability and general failure relating to technology

**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
At Financial Close

Financing in Place
- Project equity and debt funding in place → Funds available to the project, working capital
- Completion guarantee by Sponsor(s)
- Adequate reserve accounts (debt service, maintenance, operating)

Feedstock Agreements
- Origination contracts in place with credit-worthy counterparty → Price/Volume
- Long-term, no diversion

Off-take Agreements
- Long-term contracts in place with credit-worthy counterparty → Price/Volume
- Fixed pricing / Pricing formula (hedging strategy)

Project Cash Flows
- Long-term feedstock and offtake agreements reduce project cash flow volatility and provide operating cash flow margin that will enable the project to pay interest and principal

EPC / Technology / Operating Agreements
- Contracts in place with experienced EPC contractor → Guaranteed price and wrap
- Best type of contract → Technology provider and EPC contractor are same company
- Experienced operator that can control costs, product quality and output volume
Project Finance Execution

1) Sources and Uses
2) Private Placement Memorandum
3) Independent Engineer Report
4) Timetable
5) Project Finance Waterfall
6) Case Study – Project Finance Credit Quality
Sources and Uses of Funds

Sources of Funds
- Senior debt
- Subordinated debt
- Equity
  - Cash
  - Contributed PPE
  - NMTCs (after project finance close)

Uses of Funds
- Project construction fund
- Capitalized interest (interest during construction)
- Debt service reserve fund (1-yr of principal + interest)
- Reserves – operating, maintenance
- Project soft costs (third-party reports, engineering, etc.)
- Legal costs
  - Developer counsel (TBD)
  - Issuer counsel (PACE or SW bonds)
  - Stern counsel (Krieg DeVault)
- Investment banking fee – Stern Brothers (sole manager)
  - Retainer / Structuring / Underwriting Fee
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
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
# Timetable

## Documentation

- **Documents controlled by the team**
  - PPM, bond documents, etc.
  - 8 to 10 weeks
- **Documents NOT controlled by the team**
  - IE report / Feedstock study / Market study → 4 to 8 weeks each
  - Miscellaneous (Appraisal, Phase 1 Environmental, Insurance, Project survey, etc.)

## Marketing

- **Week 1**
  - Information to investors
  - Q&A conference call
- **Week 2**
  - Response from investors
  - One-on-one calls
- **Week 3**
  - More information to investors
  - Detailed discussions on price and terms
- **Week 4**
  - Response from investors
  - Finalize investor(s)
- **Weeks 5-8**
  - Negotiate
  - Final price and terms
- **Weeks 9-10**
  - Document and Close

## Selling Process

- **Information to investors**
- **100+ investors**
- **Response from investors**
- **20+ investors**
- **More information to investors**
- **5+ investors**
- **Response from investors**
- **2-4 investors**
- **Negotiate**
- **2+ investors**
- **Document and Close**

### SternBrothers&Co.
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)
Alternative Energy Finance Group – An Overview

- 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.
Alternative Energy Finance Group – M&A Overview

Stern Brothers has a solid perspective on how buyers and sellers react in the marketplace. We also have substantial experience in structuring and negotiating deals that create value for business owners. We provide thoughtful representation to our clients at every stage of an M&A transaction. Our experience has taught us that successful deals result from a proven, targeted process that effectively identifies the best transaction partner for our client.

**Sell-side Clients:**
- Owners who want to create liquidity and diversify their wealth
- Companies that need assistance in evaluating and negotiating offers
- Companies disposing of non-core operations

**Buy-side Clients:**
- Companies that want to acquire a producer of products or services
- Strategic and financial buyers who want to expand a subsidiary or platform company
- Companies seeking to extend geographic reach

**Industry Consolidations**

Providing consolidation services to business owners who want to combine the resources of a number of companies in a specific industry or market. We provides M&A advisory and funding expertise to the consolidation process.

We understand the complexity and detail required in combining multiple operating entities, from evaluating the potential of the target entities to being sure the right management team is in place. We can assist you with each step in this process.
Stern Brothers believes that a company’s growth should be determined by its strategy not its existing capital structure. However, too often, a company’s strategy for growth is limited by the capital available to fund it. Business owners frequently discover that implementing a strategy that takes full advantage of the available opportunities requires more capital than the business can either generate internally or obtain from its existing bank relationships. In such situations, we have not only the market knowledge to determine the appropriate capital structure, but also the relationships to access the market and successfully place the capital on favorable terms. Whether the situation calls for senior debt, subordinated debt, equity, or a combination of different types of capital, we will work with you to conduct a competitive process for each type of capital.

The private equity market has developed a recapitalization structure that offers an outcome for many private business owners that is superior to an outright sale.

A private equity recapitalization is a combination of:
• The sale of 100% of the company to the buyer
• A series of financing transactions by buyer
• Buyer borrows from banks or other lenders
• The private equity group contributes cash for control equity position
• Entrepreneur/selling shareholders contribute cash for minority equity position
• A second liquidity event usually occurs 3 to 5 years after the sale

For entrepreneurs who have built wealth inside their companies, a recapitalization is an excellent tool to create current liquidity for the owner and provide for additional upside through continued equity ownership post-transition.

Types of transactions:
• Debt Recapitalization
• Majority Recapitalization
• Management Buyout
• Minority Equity-Led Recapitalization
• Balance Sheet Restructuring
Stern’s National Business Scope

Locations
Atlanta
Chicago
Cleveland
Dallas
Denver
Detroit
Houston
Kansas City
Los Angeles
Reno
San Francisco
St. Louis (HQ)
Seattle
Tampa
Current Projects

- Stern Brothers has been the leading investment bank in advocating that the U.S. Department of Agriculture expand its bio-refinery guarantee program to include bonds, as well as bank debt.
- Stern Brothers and its attorneys have submitted comments on the 9003 loan guarantee program to the USDA and have designed a loan guarantee structure for bonds that fits within the USDA rules for loan guarantees.
  - Four of the six loan guarantee applications received by the USDA in 2010 were submitted by Stern Brothers’ clients; seven of Stern’s clients submitted 9003 applications in 2011.
- The ability of project developers to use the USDA loan guarantee for bonds will greatly increase the amount of capital available to finance the commercialization of second generation ethanol production technology.
- The two loan guarantees that have been awarded by the USDA under the 2011 application process are Stern clients. The projects of other Stern clients are in various stages of project development.

<table>
<thead>
<tr>
<th>Developer Location</th>
<th>Project Location</th>
<th>Project Size</th>
<th>USDA Senior Loan Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada (2010)</td>
<td>Mississippi</td>
<td>$150,000,000</td>
<td>$80,000,000</td>
</tr>
<tr>
<td>Colorado (2011)</td>
<td>Oregon</td>
<td>328,240,000</td>
<td>232,500,000</td>
</tr>
<tr>
<td>California (2011)</td>
<td>Nevada</td>
<td>152,640,925</td>
<td>124,995,000</td>
</tr>
<tr>
<td>Italy (2011)</td>
<td>North Carolina</td>
<td>137,035,073</td>
<td>124,995,000</td>
</tr>
<tr>
<td>Texas (2011)</td>
<td>Texas</td>
<td>86,536,800</td>
<td>62,950,000</td>
</tr>
<tr>
<td>Maryland (2011)</td>
<td>Iowa</td>
<td>42,000,000</td>
<td>25,000,000</td>
</tr>
</tbody>
</table>

- Other current assignments include:
  - Capital raising for an electric generation station repowering in the Midwest
  - Financial advisory and capital raising for a wood pellet project in the Southeast
  - Capital raising for biogas (hog manure) to CNG/LNG project in the Midwest
  - Senior (tax-exempt) debt financing for waste shingles processing project in the Upper Midwest
John May, Managing Director

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.

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Co-Head of Alternative Energy Finance Group

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**Stern Brothers – Select Transactions**

<table>
<thead>
<tr>
<th>Company/Project</th>
<th>Amount</th>
<th>Details</th>
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<tbody>
<tr>
<td>RTS Recovery Technology Solutions</td>
<td>$19,750,000</td>
<td>Recovery Bonds, 6.75 Mil. Corp. Preferred Equity, Sole Placement Agent</td>
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<tr>
<td>Myrient</td>
<td>$25,000,000</td>
<td>Myrient Lake Providence Inc., Revenue Bonds, $15.0 Mil. USDA Guaranteed Bonds, $10.0 Mil. Unsecured Bonds, Series 2012, Sole Placement Agent</td>
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<td>California Municipal Finance Authority, Revenue Bonds, (UTS Renewable Energy Wastewater Facilities Financing Program), Series 2011, Senior Placement Agent</td>
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<td>BIOENERGY INTERNATIONAL</td>
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<td>Pennsylvania Economic Development Financing Authority, Senior Exempt Facilities Revenue Bonds, Bionol Clearfield LLC Ethanol Project, Series 2008, Sole Placement Agent</td>
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<td>ILLINOIS RIVER ENERGY</td>
<td>$30,000,000</td>
<td>Illinois Finance Authority, Subordinate Solid Waste Disposal Facility Revenue Bonds, Illinois River Energy LLC Ethanol Project, Series 2007, Sole Placement Agent</td>
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<td>BUNGE</td>
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<td>Biofuels Company of America, Biodiesel Manufacturing Facility, Senior Secured Credit Facilities, $15,000,000, Illinois Finance Authority, Agribusiness Loan Guarantee, Sole Arranger 2006</td>
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<td>Sexton Energy LLC</td>
<td>$7,500,000</td>
<td>Illinois Finance Authority, Variable Rate Demand Revenue Bonds, Sexton Energy LLC, Series 2003, Sole Placement Agent</td>
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</tbody>
</table>