

CDFA – Stern Brothers Renewable Energy Finance Webcast Series: What Does Today’s Renewable Energy Marketplace Look Like?

The Broadcast will begin at 1:00pm (EST).

While you’re waiting, mark your calendar for these upcoming CDFA events:

**Intro Bond
Finance Course**



March 15-16, 2012
Washington, DC

**Innovation
Finance WebCourse**



May 8-9, 2012
Daily: 12-5pm (EDT)

**Intro Energy
Finance Course**



July 31-August 1, 2012
Washington, DC

CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



Stern Brothers & Co.
INVESTMENT BANKING SINCE 1917

in partnership with



What Does Today's Renewable Energy Marketplace Look Like?

Katie Kramer

**Director, Education & Programs
Council of Development Finance Agencies
Columbus, OH**



■ Are you a CDFA Member?

Members receive exclusive access to thousands of resources in the CDFA Online Resource Database. Join today at www.cdfa.net to set-up your unique login.

**CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series**

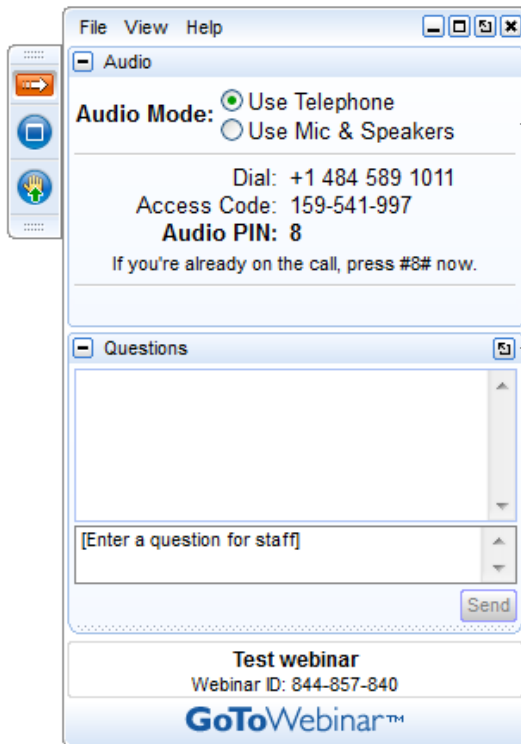


SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

in partnership with



What Does Today's Renewable Energy Marketplace Look Like?



Using your telephone will give you better audio quality.

Submit your questions to the panelists here.

■ ■ Want to watch again?

You will find a recording of this webcast, as well as all previous CDFA webcasts, in the Online Resource Database at www.cdfa.net.

CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



Stern Brothers & Co.
INVESTMENT BANKING SINCE 1917

in partnership with



What Does Today's Renewable Energy Marketplace Look Like?

Speakers

Les Krone, *Moderator*
Stern Brothers & Co.

Lewis Milford
Clean Energy Group

John Kirkwood
Krieg DeVault LLP

**Intro Bond
Finance Course**



March 15-16, 2012
Washington, DC

**Innovation
Finance WebCourse**



May 8-9, 2012
Daily: 12-5pm (EDT)

**Intro Energy
Finance Course**



July 31-August 1, 2012
Washington, DC

**Intro Tax Increment
Finance WebCourse**



September 18-19, 2012
Daily: 12-5pm (EDT)

**Advanced
Tax Increment
Finance WebCourse**



September 20-21, 2012
Daily: 12-5pm (EDT)

**Intro Tax Credit
Finance WebCourse**



November 6-7, 2012
Daily: 12-5pm (EST)

CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



Stern Brothers & Co.
INVESTMENT BANKING SINCE 1917

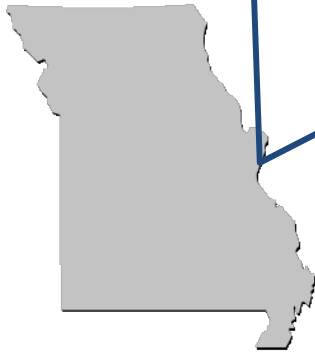
in partnership with



What Does Today's Renewable Energy Marketplace Look Like?

Les Krone

**Managing Director
Stern Brothers & Co.
St. Louis, MO**



■ ■ What are you reading these days?

Your development finance toolbox isn't complete without a set of CDFA reference guides. CDFA Members save 15% or more on every purchase. Order today at www.cdfa.net.

**CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series**



SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

in partnership with



What Does Today's Renewable Energy Marketplace Look Like?

Lewis Milford

President

Clean Energy Group

Montpelier, VT



■ Are you a CDFA Member?

Members receive discounts to all CDFA events, including training courses and the National Development Finance Summit. Join today at www.cdfa.net, and start saving.

CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



Stern Brothers & Co.
INVESTMENT BANKING SINCE 1917

in partnership with





SternBrothers&Co.

Over the Cliff: Where is Clean Energy in a Post Stimulus World?

Lewis Milford, President
Clean Energy Group
March 8, 2012

CDFA-Stern Brothers Renewable
Energy Finance Webcast Series:
What Does Today's Renewable Energy
Marketplace Look Like?

Brookings Institution/CEG 2012 Paper

“Washington is again paralyzed and pulling back on clean energy economic development.

The federal government, immobilized by debt and partisanship, won't likely supply new funding solutions any time soon. Existing financial supports, likewise, appear tenuous, given that many of the federal tax incentives, subsidies, and loan guarantees made available through the 2009 stimulus law and elsewhere are set to expire.

All of which confronts the nation with a daunting question: If the country is to take advantage of the economic, environmental, and health benefits of clean energy, how will its development be financed, its emerging companies be supported, and its markets be structured—and who is in the best position to decide and act?”

Milford, Lewis, Mark Muro et al for the Brookings-Rockefeller Project on State and Metropolitan Innovation, “Leveraging State Clean Energy Funds for Economic Development”, January 2012.
http://www.brookings.edu/~media/Files/rc/papers/2012/0111_states_energy_funds/0111_states_energy_funds.pdf



Federal Stimulus ARRA Cliff

Production Tax Credit

- Provides a 10-year, inflation-adjusted production tax credit for wind, closed- and open-loop biomass, geothermal, landfill gas, municipal solid waste, qualified hydropower, and marine and hydrokinetic facilities
- The credit provides a 2.2 cent per kilowatt hour credit for energy produced by qualifying facilities for 10 years.
- **Expired at the end of 2022. The PTC for incremental hydro, wave and tidal energy, geothermal, MSW, and bioenergy was extended until the end of 2013. The PTC for solar expires in 2016.**

Investment Tax Credit

- Can be applied to certain types of commercial energy projects, including solar, fuel cells, and small wind projects (all of which are eligible for a credit equal to 30% of the project capital cost.
- The ITC is currently available to qualified projects that are placed in service prior to the end of 2016, though the geothermal credit has no expiration date,
- **Generally expires at end of 2016.**

Payments in Lieu of Tax Credits (1603)

- Provides in lieu of PTC credit.
- The value of the awards are equivalent to 30% of the project's total eligible cost basis in most cases.
- **Expired December 31, 2011.**

Clean Energy Manufacturing Tax Credits (48C)

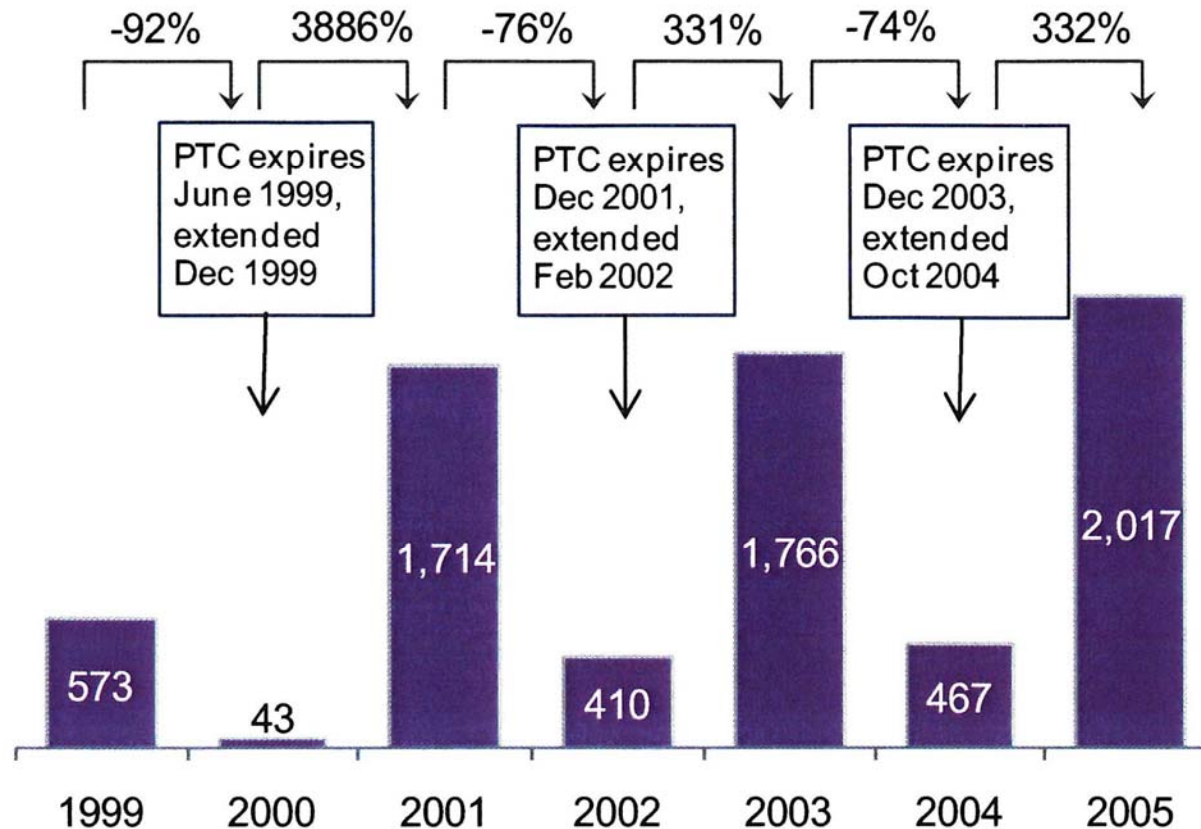
- Provided a 30 percent tax credit for investments in 183 manufacturing facilities for clean energy products across 43 states.
- The program is currently capped at \$2.3 billion in tax credits.
- Over 500 applications were submitted, totaling over \$8 billion and oversubscribing the program by a ratio of more than 3 to 1.
- **Application deadline for this program expired January 31, 2011.**

Federal Loan Guarantees

- The Loan Programs allow the Federal Government to share some of the financial risks of projects that employ new technologies that are not yet supported in the commercial marketplace or where private investment has been inhibited.
- Section 1703 of Title XVII of the Energy Policy Act of 2005 authorizes the U.S. DOE to support innovative clean energy technologies.
- **The application deadline for applications under this program expired December 2010.**

Boom and Bust Tax Driven Industry

U.S. Wind Project Installations, 1999-2005 (MW)



Source: Bloomberg New Energy Finance, AWEA

Limits to Federal Tax Equity Model

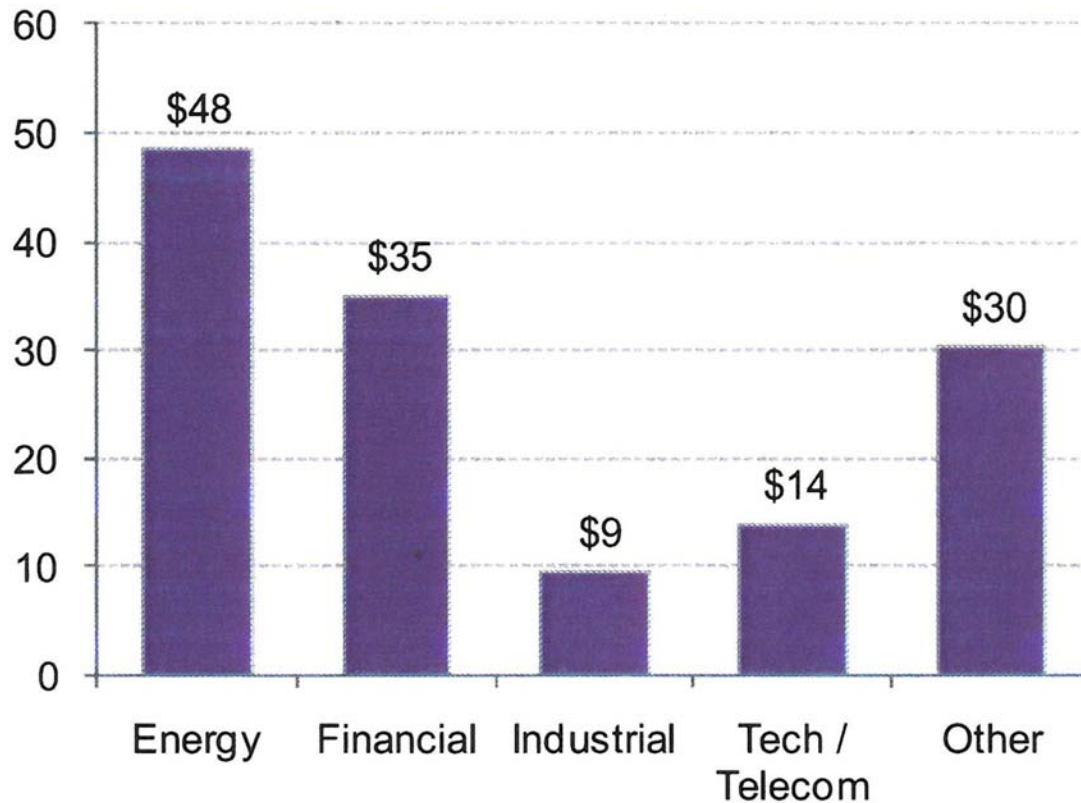
Tax Equity Investors in 2007	Tax Equity Investors in 2008	Tax Equity Investors in 2009
<ul style="list-style-type: none"> • JPMorgan • Union Bank of California • Wells Fargo • New York Life • Bank of America • GE Capital • Morgan Stanley • HSH Nordbank⁽¹⁾ • Key⁽¹⁾ • Northern Trust⁽¹⁾ • John Hancock • Prudential • NorthWestern Mutual • Citi • ABN Amro* • Fortis* • Lehman Brothers* • Wachovia* • AIG* • Merrill Lynch* 	<ul style="list-style-type: none"> • JPMorgan • Union Bank of California • Wells Fargo • New York Life • GE Capital • Sempra Energy • Morgan Stanley • Bank of America⁽¹⁾ • US Bank⁽¹⁾ • HSH Nordbank⁽¹⁾ • Key⁽¹⁾ • Northern Trust⁽¹⁾ • SunTrust⁽¹⁾ 	<ul style="list-style-type: none"> • JPMorgan • Union Bank of California • Bank of America • GE Capital • Credit Suisse • Morgan Stanley • Citi • Wells Fargo⁽¹⁾ • US Bank⁽¹⁾ • Key⁽¹⁾ • Northern Trust⁽¹⁾
<p>Departed tax equity base during 2008-2009 due to insufficient taxable income or bankruptcy</p> <p>*Permanent Departure</p>		
Renewables Tax Equity Market: \$6.1 Billion	\$3.4 Billion	\$1.2 Billion

Sources: U.S. Partnership for Renewable Energy Finance (PREF)⁷³

⁽¹⁾ These firms only participate in small-scale solar financings

New Sources of Capital: Equity?

Cash Paid for Taxes (trailing 12 months) for 500 Largest U.S. Public Companies by Sector (\$bn)



Source: Bloomberg New Energy Finance, Bloomberg terminal data

New Sources of Capital: Debt?

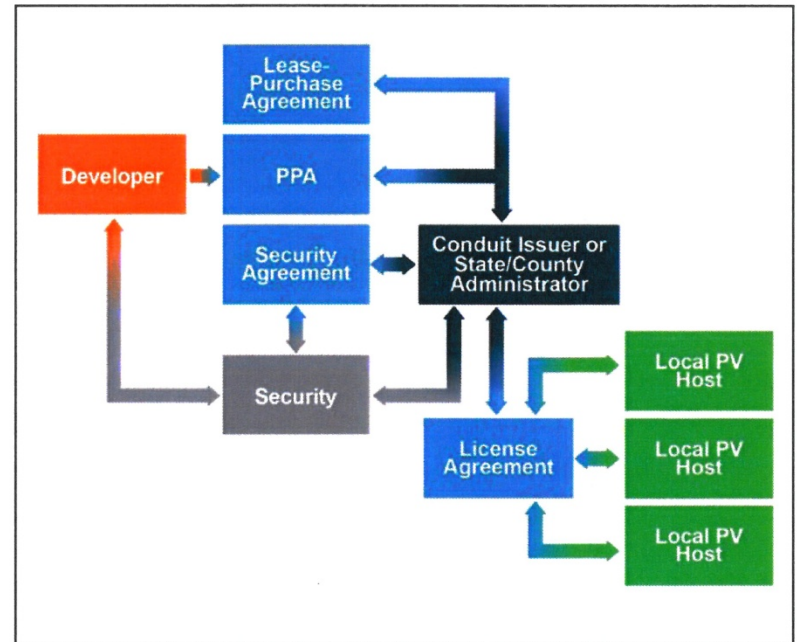
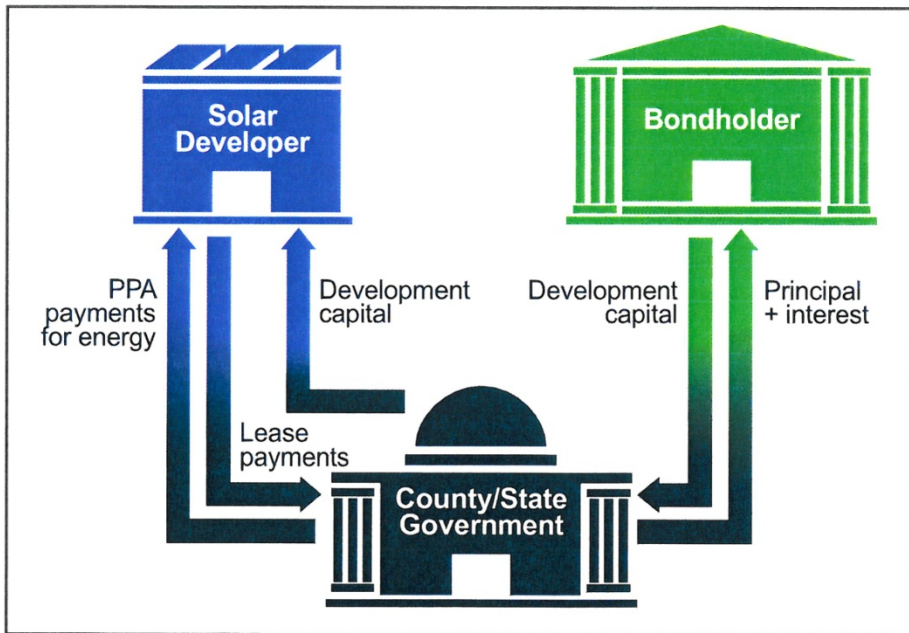
Tax Exempt Bonds are the Bedrock of Public Finance

Over 50,000 state and local governments and authorities have used tax-exempt bonds to invest in three quarters of the U.S. infrastructure representing a \$3 trillion industry.

- 4 million miles of roadway
- 500,000 bridges
- 1,000 mass transit systems
- 16,000 airports
- 25,000 miles of intercoastal waterways
- 70,000 dams
- 900,000 miles of pipe in water systems
- 15,000 waste water treatment plants

Renewable Energy Conduit Bond Financing

Morris County NJ Solar Finance



Source: "Financing Solar PV at Government Sites with PPAs and Public Debt". NREL. December 2011.

<http://www.nrel.gov/docs/fy12osti/53622.pdf>

Complex State Funding Mechanisms

Finance Mechanisms for Installation of Clean Energy Technologies

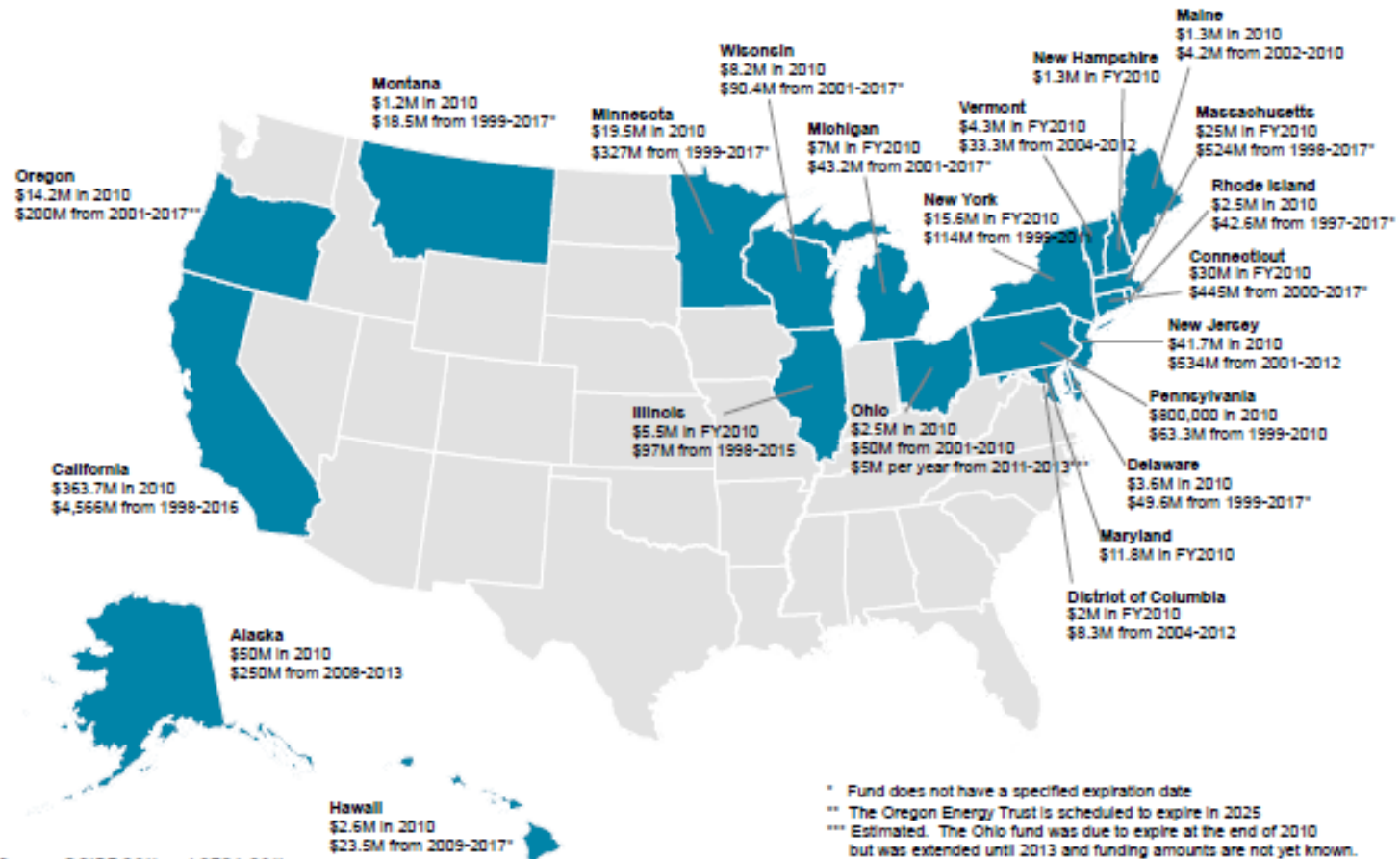
Rebates	As the primary target of support for EE/RE investments at the state level, technologies supported through rebates include energy efficient appliances, CFLs, solar PV systems, solar hot water systems, and geothermal heat pumps (e.g. Energy Efficiency Program offers solar water heater rebates to residential utility customers)
Grants	Grant programs are used to tailor support to EE/RE projects that are more highly engineered, larger in scale, or represent demonstration projects or emerging technologies (e.g. Green Energy Fund provides cash grants for renewable energy technology installation)
Loans	Direct loan programs play an important role in addressing upfront capital shortages. Moreover, because these loan funds revolve, the program's initial capital is preserved (e.g. Virginia Voluntary Solar Resource Development Fund provides loans for residential, commercial, or non-profit solar projects)
Performance-based Incentives	PBIs are directly tied to RE system performance and actual energy generation rather than units of installed capacity. They are paid on a per-kilowatt-hour basis for a fixed number of years (e.g., California Solar Initiative offers PBI for solar PV systems between 50 kW and 1MW in size).

State Economic Development Programs

- [NextEnergy](#) (Michigan): Launched in 2002 with financial support from the State of Michigan, *NextEnergy* is one of the nation's leading research catalysts and business accelerators for alternative and renewable energy.
- [Clean Tech Center](#) (New York): The Clean Tech Center is an initiative funded by NYSERDA to support renewable and clean energy technology companies in New York State.
- [Ohio Third Frontier Program](#): A hybrid between the business development, RD&D and industrial expansion models, the Third Frontier Program is a \$2.3 billion, voter-approved bond program that seeks to develop new industry and technology clusters in advanced energy, fuel cells, advanced materials, solar photovoltaics and biomedical products.
- [Iowa Power Fund](#): The Iowa Power Fund is administered by the Iowa Office of Energy Independence. The fund's objective is to accelerate research and development, knowledge transfer, and technology innovation, within the Iowa cleantech sector.
- [California PIER](#): California PIER (Public Interest Energy Research) is the RD&D program of the California Energy Commission. PIER funding comes from both electric and natural gas utilities (collected through ratepayers). The program's current budget is \$62.5 million for electricity and \$21 million for natural gas-related research
- [NYSERDA](#) : The New York clean energy fund manages a Buildings and Industry and Clean Energy Research and Market Development program, which funds both basic and applied research in electricity grid improvement, building and lighting technologies, industrial process improvement, energy storage, renewable energy technologies, transportation-related efficiency improvements, and other areas.
- [Massachusetts Clean Energy Center](#): The ratepayer-funded MassCEC (formerly the Massachusetts Renewable Energy Trust) is the state's lead agency in the development and promotion of the Massachusetts clean energy cluster.

State Clean Energy Funds Support

State Clean Energy Funds Investment in Renewable Energy



Investment figures include only funding in designated state CEFs supported by utility ratepayer surcharges, with the exception of Alaska's legislatively appropriated fund. Otherwise, figures do not include ARRA funds, funds that support RPS efforts, or funds that are raised through bonds or legislative appropriations. As such, the figures presented here represent a lower bound on total state investment in renewable energy.

Beyond Project Capital: Need to Build Industries

“Yet here is the rub: For all the good the funds have achieved, **project-only financing—as needed as it is—will not be sufficient to drive the growth of large and innovative new companies or to create the broader economic development taxpayers demand from public investments.** Also needed, will be more focus on the deeper-going economic development work that can create a foundation to grow whole new industries.”

Clean Energy-Related Economic Development Model

A broader economic development strategy by state CEFs would encompass the following, in addition to project finance and development:

- **Innovation** – Support research and development of new clean energy technologies.
- **Investment** – Use state loans and equity to provide initial investment in clean energy companies and projects.
- **Industry development** – Employ a range of marketing support, business incubators, manufacturing and export promotion, supply chain analysis and enhancement, and workforce training programs to facilitate clean energy market transformation.

What Would a Robust Federalist Strategy Look Like?

- Innovative and improved **renewable portfolio mandates**.
- Use of **new utility mandates** to require investment in a portfolio of emerging technologies.
- Implementation of **costing measures in FERC orders**.
- **Use of joint or coordinated state and federal procurement models**.
- Creation of **renewable New Market Tax Credit mechanism**.
- Greater use of **infrastructure finance tools**.
- Expansion of the role for **existing state infrastructure banks** in clean energy finance.
- Transition of management of **state revolving loan funds'** clean energy assets to private lenders.
- Creation of more clean energy funds in **Community Development Finance Institutions**.
- **Greater private bank lending** partnerships with CDE type organizations.
- Creation of more state based **green bank entities**.
- Use of **regional public banks or funding entities**.
- Evaluation of measures to increase the level of institutional funding.
- Viability and best practices **related to use of venture capital models** to finance scale up of clean.
- Use of **on bill financing** options for commercial entities.
- Creation of **more corporate activity**.
- Creation of new real estate investment trust **(REIT) renewable asset category**.
- Creation of **Master Limited Partnership (MLP)** for renewable investment.
- Expansion of a **Community Reinvestment Act (CRA)** mandate on banks to include clean energy.
- Use of Business **Development Corporations (BDCs)** to invest in clean energy.
- Consideration of clean energy in **crowd-sourced funding**.
- Use of **securitization techniques** to raise capital for clean energy, and what kind of standardization tools and portfolio levels are required.

Contact Info

Lewis Milford

Clean Energy Group

50 State Street, Suite 1

Montpelier, VT 05602

Phone: 802-223-2554

Email: LMilford@cleanegroup.org



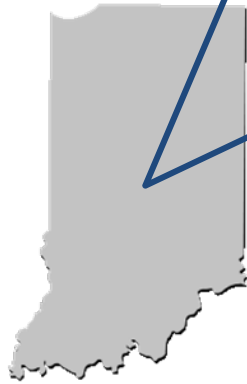
What Does Today's Renewable Energy Marketplace Look Like?

John Kirkwood

Partner

Krieg DeVault LLP

Carmel, IN



■ ■ Need assistance with your energy finance programs?

Consider CDFA's Research & Advisory Services – offering customized and tailored technical assistance for all of your development finance needs. Learn more at www.cdfa.net.

**CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series**



SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

in partnership with



CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

in partnership with  CleanEnergyGroup
Innovation in Finance, Technology & Policy

Webcast One: What Does Today's Renewable Energy Marketplace Look Like?

March 8, 2012

Les Krone
Managing Director
Stern Brothers & Co.
St. Louis, MO

John Kirkwood
Partner
Krieg DeVault LLP
Carmel, IN 46032

Current State of Bank Market

- New global capital rules & 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.
- Emerging market institutions are expected to replace traditional European & 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) recently sold \$850 million of senior unsecured debt (Baa3/BBB-) due 2039 to fund its \$2.4 billion Topaz Solar project in California

Renewable Finance Sector Update

Many programs that the renewables industry has relied on to help spur development and lower capital costs are no longer available

- 1603 grant not available to projects starting after 1/1/2012
- Federal loan guaranty programs (USDA 9003, DOE) not funded for 2012
- Tax-exempt Recovery Zone Facility Bonds expired at the end of 2010
- Production tax credits come and go

Some low cost financing tools are still available

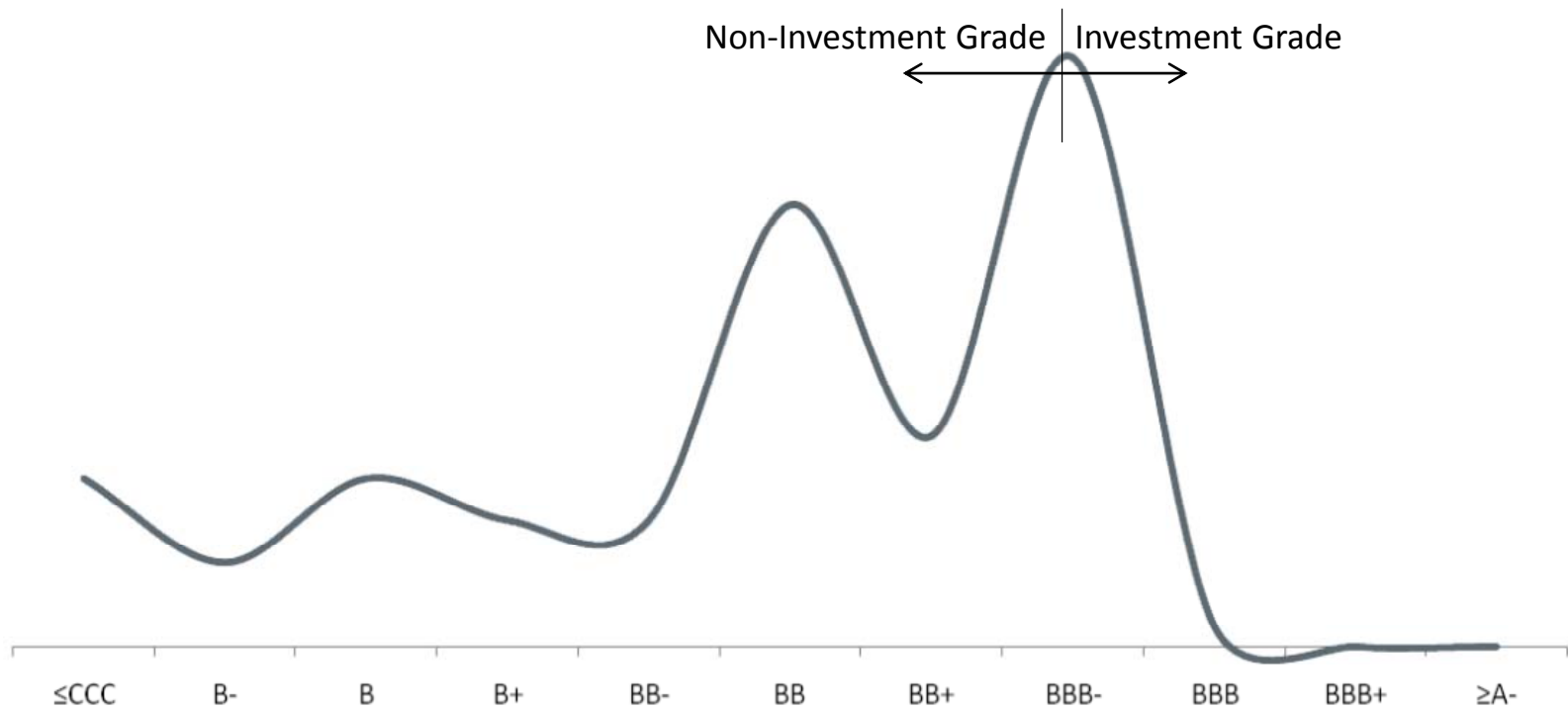
- Tax-exempt solid waste bonds (certain types of projects)
- Qualified Energy Conservation Bonds / Clean Renewable Energy Bonds

Other credit enhancement techniques

- Guaranty – state moral ob, parent, technology provider, export-import bank
- Partial prepayment of off-take agreement to fund construction
- Additional equity

Renewable Energy Project Ratings

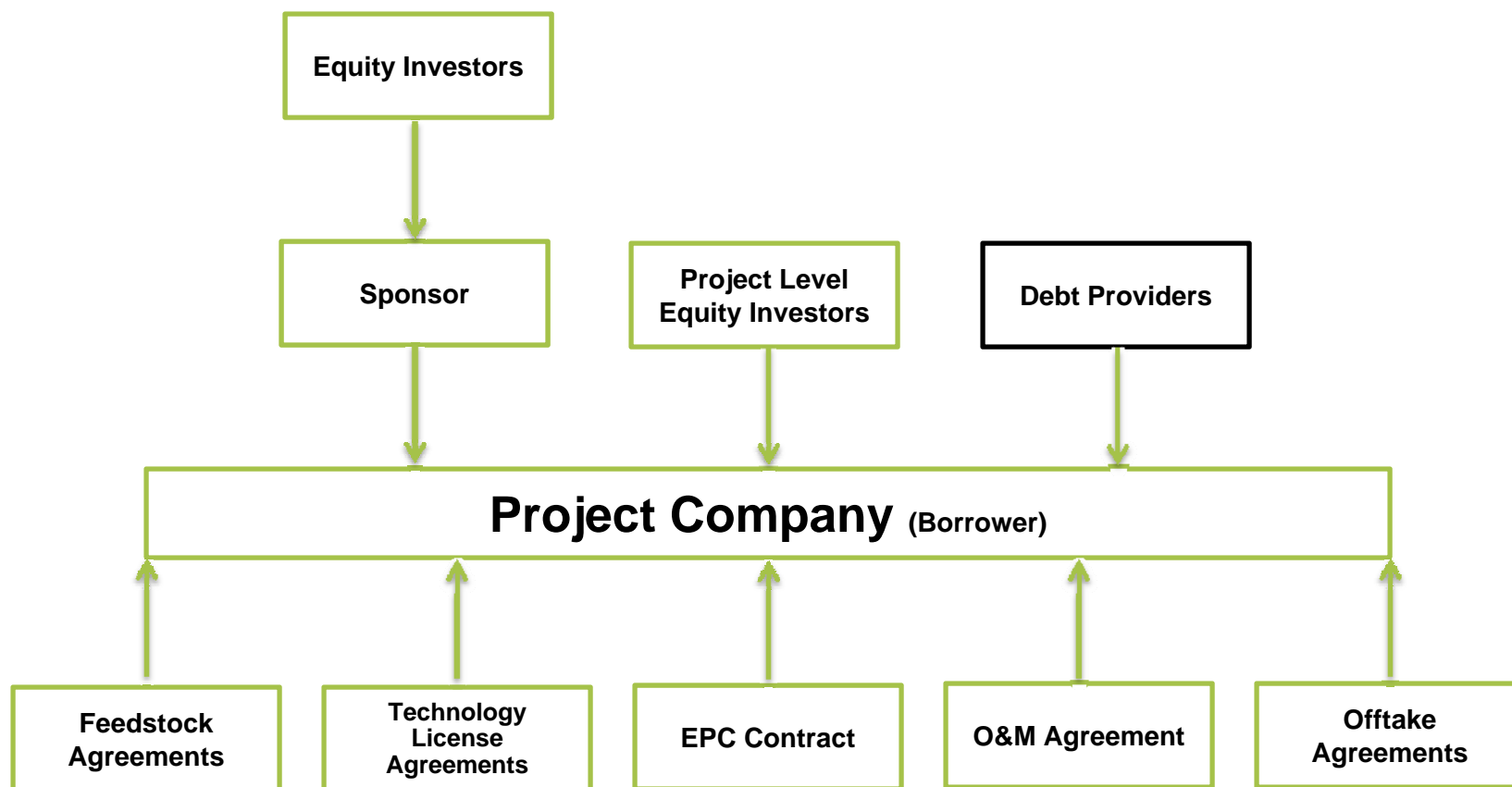
Project Finance Renewable Portfolio Rating Distribution



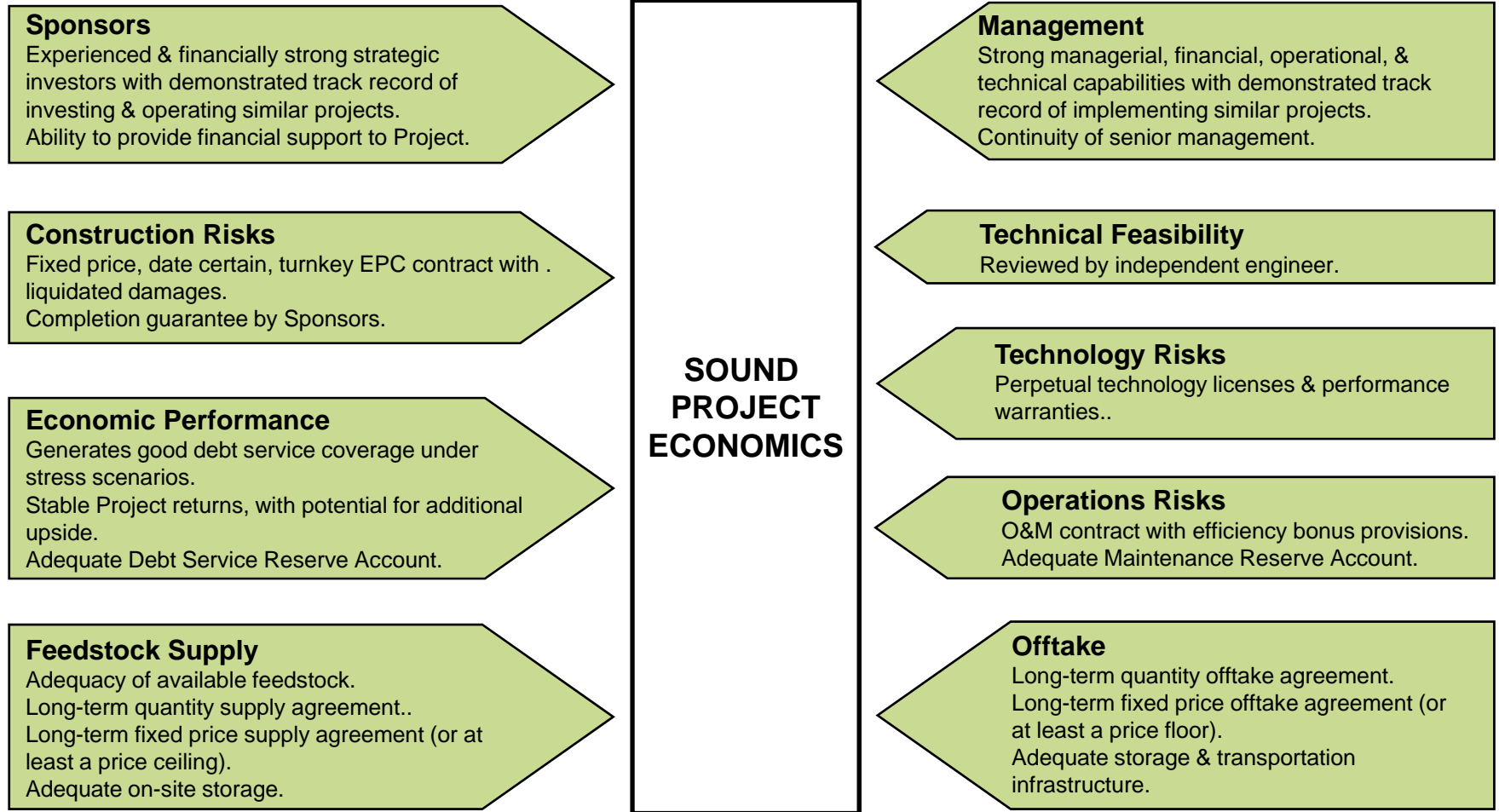
Source: Fitch Renewable Energy Forum 6/23/11

Note: Includes Public, Private Ratings and Credit Assessments

Typical Project Finance Schematic



Project Structure must Address a Number of Risks to Achieve Optimal Financing



Successful Financing Process Requires Pragmatic Approach on Key Issues

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

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

Feedstock Supply.

- Long-term *quantity* supply agreement.
- Long-term *fixed price* supply agreement (or at least a price *ceiling*).
- Adequate on-site storage.

Offtake.

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

Successful Financing Process Requires Pragmatic Approach on Key Issues (cont'd)

Construction Risks.

- Fixed price, date certain, turnkey EPC contract with liquidated damages.
- Completion guarantee by Sponsors.
- Insurance/warranties on parts, availability, & general failure relating to proprietary technology.

Operations Risks.

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

Successful Financing Process Requires Pragmatic Approach on Key Issues (cont'd)

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.
- Continuity of Senior Management.

Key Risks Mitigation for Renewable Projects – Biomass Conversion Project

Issue	Risks Mitigated By:
Biomass Conversion Technology	Identical technology in use at other sites using similar feedstock
EPC Contractor	Well-known, experienced EPC contractor to provide a GMP contract with a payment and performance bond with liquidated damages
3 rd Party Technology and Feedstock Assessments	Technology risk mitigated by independent engineer report Feedstock availability addressed by wood market consultant
Operations Costs	Cost of operations and maintenance are known from operation of similar facilities, O&M reserve in place upon COD of the project, O&M services provided by the EPC contractor
Feedstock Agreement	Multi-year feedstock agreements in place with multiple wood providers
Product Off-take Agreement (PPA)	Long-term electricity off-take agreement in place with investment grade utility for 100% of production at known price with yearly escalators
Protection of project debt investors	Debt service reserve in place at financial close, required debt service coverage ratio and cash traps, project finance waterfall

Contact Information

Les Krone

Managing Director
Stern Brothers & Co.
(Office) 314.743.3054
(Cell) 314.614.3097
8000 Maryland Avenue
Suite 800
St. Louis, MO 63105

James Dack

Vice President
Stern Brothers & Co.
(Office) 206.652.3564
(Cell) 206.422.5142
601 Union Street
Suite 4200
Seattle, WA 98101

John Kirkwood

Partner
Krieg DeVault LLP
(Office) 317.238.6238
(Cell) 317.625.4258
12800 N Meridian Street
Suite 300
Carmel, IN 46032

Appendix

Stern Brothers Credentials

- **Established in 1917, registered broker-dealer with 14 offices.**
 - 60 employees
 - 13 offices outside St. Louis (headquarters)
- **Client Services.**
 - Underwritings & Private Placements
 - Financial Advisory
 - Credit Enhancement
 - Remarketing
 - Reinvestment
- **Investment Banking Products.**
 - Project Finance
 - Alternative Energy
 - Housing
 - Healthcare
 - Higher Education & Non-Profit

Stern Brothers Credentials (cont'd)

- Debt capital markets (investment grade & high yield).
 - Tax exempt & taxable bonds
 - Fixed income origination
 - Fixed income research
 - Fixed income distribution
 - Fixed income sales & trading
- Leading renewable energy investment bank for structuring & placing non-recourse project-related bond debt (taxable & tax exempt).
- One of top financial arrangers for complex projects.
- Proven expertise in global project finance, including technical, economic, & financial advice for large scale projects.
- Senior level relationships cultivated over many years with major players in financial markets.
- Bond Buyer Deal of the Year (Maine Oil Remediation Bonds) 2009.

Selected Stern Brothers Renewables Transactions



\$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



\$65,000,000

**Pennsylvania Economic
Development Financing Authority**

Senior Exempt Facilities Revenue
Bonds

Bionol Clearfield LLC Ethanol Project

Series 2008

Sole Placement Agent



\$30,000,000

Illinois Finance Authority

Subordinate Solid Waste Disposal
Facility Revenue Bonds

Illinois River Energy LLC Ethanol
Project

Series 2007

Sole Placement Agent

BUNGE

\$29,600,000

Biofuels Company of America

Biodiesel Manufacturing Facility
Senior Secured Credit Facilities

\$15,000,000

Illinois Finance Authority

Agribusiness Loan Guarantee

Sole Arranger 2006



\$7,500,000

Illinois Finance Authority

Variable Rate Demand Revenue
Bonds

Sexton Energy LLC

Series 2003

Sole Placement Agent

Selected Renewables Transactions (cont'd)

UTS BioEnergy, LLC (2011)

Description	Terms						
Project	Financing 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.						
Offtake	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.						
Construction	Otto H. Rosentreter Co. (City of San Jose) and HDR Design-Build Inc. (Inland Empire Utility Agency)						
Funding	<table border="0"> <tr> <td>Private Activity Bonds – Solid Waste Disposal Bonds</td> <td style="text-align: right;">\$23.330 million</td> </tr> <tr> <td>Equity</td> <td style="text-align: right;">\$ 5.000 million</td> </tr> <tr> <td style="padding-left: 20px;"><i>Total</i></td> <td style="text-align: right;"><i>\$28.330 million</i></td> </tr> </table>	Private Activity Bonds – Solid Waste Disposal Bonds	\$23.330 million	Equity	\$ 5.000 million	<i>Total</i>	<i>\$28.330 million</i>
Private Activity Bonds – Solid Waste Disposal Bonds	\$23.330 million						
Equity	\$ 5.000 million						
<i>Total</i>	<i>\$28.330 million</i>						
Highlights	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.						

Selected Renewables Transactions (cont'd)

The Bowersock Mills & Power Company (2011)

Description	Terms										
Project	Financing of the 4.70 MW expansion of the electrical generating capacity of the existing dam via the construction of a new powerhouse.										
Offtake	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.										
Funding	<table border="0"> <tr> <td>Recovery Zone Facility Bonds</td> <td>\$14.1 million</td> </tr> <tr> <td>Qualified Energy Conservation Bonds</td> <td>\$ 8.7 million</td> </tr> <tr> <td>Industrial Revenue Bonds</td> <td>\$ 1.0 million</td> </tr> <tr> <td>Equity</td> <td>\$ 0.4 million</td> </tr> <tr> <td><i>Total</i></td> <td><i>\$24.2 million</i></td> </tr> </table>	Recovery Zone Facility Bonds	\$14.1 million	Qualified Energy Conservation Bonds	\$ 8.7 million	Industrial Revenue Bonds	\$ 1.0 million	Equity	\$ 0.4 million	<i>Total</i>	<i>\$24.2 million</i>
Recovery Zone Facility Bonds	\$14.1 million										
Qualified Energy Conservation Bonds	\$ 8.7 million										
Industrial Revenue Bonds	\$ 1.0 million										
Equity	\$ 0.4 million										
<i>Total</i>	<i>\$24.2 million</i>										
Highlights	<p>The long term cost of capital, after taking into account the federal interest rate subsidies, is 6.70%. The Sponsor anticipates that the project, as a renewable energy resource, will be eligible to receive a 1603 tax grant of approximately \$4.9 million, which will substantially de-lever the capital structure after the project is placed in service.</p>										

Selected Renewables Transactions (cont'd)

Bionol Clearfield (2008)

Description	Terms												
Project	100 million gallon per year ethanol production facility in Clearfield, Pennsylvania (in service 2010)..												
Offtake	5 year ethanol purchase agreement with Getty Petroleum. Co-product marketing agreement with Land O'Lakes Purina Feeds.												
Technology	ICM, Inc. technology built under EPC contract by Fagen, Inc.												
Funding	<table border="0"> <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><i>Total</i></td> <td><i>\$264.0 million</i></td> </tr> </table>	Senior tax exempt bonds	\$ 65.0 million	Senior taxable bank debt	\$110.0 million	Second lien bank facility	\$ 30.0 million	State grants	\$ 15.9 million	Equity	\$ 43.1 million	<i>Total</i>	<i>\$264.0 million</i>
Senior tax exempt bonds	\$ 65.0 million												
Senior taxable bank debt	\$110.0 million												
Second lien bank facility	\$ 30.0 million												
State grants	\$ 15.9 million												
Equity	\$ 43.1 million												
<i>Total</i>	<i>\$264.0 million</i>												
Highlights	<p>Bank co-lead arrangers had key syndicate member drop out & asked Stern Brothers to structure & place the largest tax exempt senior secured bond for ethanol in U.S. history in just 2 months.</p> <p>Bond amortization did not begin until bank debt amortized & project was into merchant period.</p> <p>Tenor of debt was extended, blended rate was lowered, & IRR improved significantly.</p>												

Selected Renewables Transactions (cont'd)

Illinois River Energy (2008)

Description	Terms								
Project	Refinance of existing 50 million gallon per year ethanol production facility plant & financing of new 50 million gallon capacity located in Rochelle, Illinois (in service 2009).								
Offtake	Merchant plant.								
Technology	ICM, Inc. technology built under EPC contract by Fagen, Inc.								
Funding	<table> <tr> <td>Taxable senior bank debt</td> <td>\$130.0 million</td> </tr> <tr> <td>Tax exempt sub bonds</td> <td>\$ 30.0 million</td> </tr> <tr> <td>Equity & state grant</td> <td>\$ 48.0 million</td> </tr> <tr> <td><i>Total</i></td> <td><i>\$208.0 million</i></td> </tr> </table>	Taxable senior bank debt	\$130.0 million	Tax exempt sub bonds	\$ 30.0 million	Equity & state grant	\$ 48.0 million	<i>Total</i>	<i>\$208.0 million</i>
Taxable senior bank debt	\$130.0 million								
Tax exempt sub bonds	\$ 30.0 million								
Equity & state grant	\$ 48.0 million								
<i>Total</i>	<i>\$208.0 million</i>								
Highlights	<p>Sponsor constrained by limit on senior bank debt. Stern Brothers retained to structure & place largest subordinated tax exempt bond for U.S. ethanol plant & 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, & IRR improved significantly.</p>								

Selected Renewables Transactions (cont'd)

Biofuels Company of America (2006)

Description	Terms						
Project	Financing of 40 million gallon per year ethanol production facility plant in Danville, Illinois (in service 2008).						
Offtake	Merchant plant.						
Technology	ICM, Inc. technology built under EPC contract by Fagen, Inc.						
Funding	<table border="0"> <tr> <td>Taxable senior bank debt</td> <td>\$24.6 million</td> </tr> <tr> <td>Equity & state grant</td> <td>\$15.4 million</td> </tr> <tr> <td><i>Total</i></td> <td><i>\$40.0 million</i></td> </tr> </table>	Taxable senior bank debt	\$24.6 million	Equity & state grant	\$15.4 million	<i>Total</i>	<i>\$40.0 million</i>
Taxable senior bank debt	\$24.6 million						
Equity & state grant	\$15.4 million						
<i>Total</i>	<i>\$40.0 million</i>						
Highlights	<p>Stern Brothers retained by Bunge to build its first biodiesel facility in North America.</p> <p>Stern Brothers structured & placed bank debt with Fifth Third Bank.</p> <p>\$15 million of senior debt was secured in first ever State balance sheet guaranty in the United States.</p> <p>Effect of guaranty was to improve rate, tenor, amortization, & covenants for Bunge beyond what it had been offered by banks in its loan syndicate.</p> <p>IRR improved significantly.</p>						

Selected Renewables Transactions (cont'd)

Sexton Energy (2003/4)

Description	Terms								
Project	Financing of 2 separate landfill gas to electricity projects in suburban Chicago (in service 2004/5).								
Offtake	Electricity sold to ComEd under PPA as required by PURPA.								
Technology	GE/Jenbacher technology built under EPC contract by GE.								
Funding	<table border="0"> <tr> <td>Tax exempt senior bond (2003 Project)</td> <td>\$ 7.5 million</td> </tr> <tr> <td>Tax exempt senior bond (2004 Project)</td> <td>\$ 3.5 million</td> </tr> <tr> <td>Equity & State grant</td> <td>\$ 4.0 million</td> </tr> <tr> <td><i>Total</i></td> <td><i>\$15.0 million</i></td> </tr> </table>	Tax exempt senior bond (2003 Project)	\$ 7.5 million	Tax exempt senior bond (2004 Project)	\$ 3.5 million	Equity & State grant	\$ 4.0 million	<i>Total</i>	<i>\$15.0 million</i>
Tax exempt senior bond (2003 Project)	\$ 7.5 million								
Tax exempt senior bond (2004 Project)	\$ 3.5 million								
Equity & State grant	\$ 4.0 million								
<i>Total</i>	<i>\$15.0 million</i>								
Highlights	<p>Stern Brothers retained by nationally known waste hauler & landfill owner operator to finance first methane to electricity projects.</p> <p>Stern Brothers structured & placed the first tax exempt bonds used to finance LFGTE projects in the United States.</p> <p>Stern Brothers also secured letter of credit from Fifth Third Bank.</p> <p>Bonds sold as variable rate demand bonds in 7 day mode.</p> <p>This resulted in all-in cost of capital under 6% & improved IRR significantly.</p> <p>Stern Brothers asked by EPA Landfill Methane Outreach program to present white paper on innovative financing at conference in January 2004.</p>								

Audience Questions



Save the Date

**CDFA National
Development Finance Summit**
July 31-August 3, 2012
Washington, DC

The banner features a background image of the US Capitol building and the Washington Monument under a blue sky. The text is overlaid on a semi-transparent white box with a pattern of stars.

■ Register Today

Early Bird Rates
available until
June 15, 2012.

CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

in partnership with 
Innovation in Finance, Technology & Policy

Continue the Conversation #CDFAwebcast



CDFA

@CDFA_Update

The Council of Development Finance Agencies is a national association dedicated to the advancement of development finance concerns and interests.

<http://cdfa.net/>

Follow

1,281 TWEETS

38 FOLLOWING

188 FOLLOWERS

Stay in touch with CDFA

Join Twitter today

Full name

Email

Password

Sign up

Tweets



CDFA @CDFA_Update

28m

CDFA-Stern Bros. Renewable #EnergyFinance Webcast begins @1pm EST. Register now bit.ly/AIROS0 & talk to us afterwards #cdfawebcast



CDFA @CDFA_Update

22h

@TheBondBuyer S&P proposes new local methodology ratings bit.ly/AavCaD #BondFinance

CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

in partnership with



Upcoming Events at CDFA

Innovation Finance WebCourse

Daily: 12-5pm (EDT)

May 8-9, 2012

Intro Energy Finance Course

Washington, DC

July 31-August 1, 2012

TIF Week

Daily: 12-5pm (EDT)

Intro TIF: Sept. 18-19, 2012

Advanced TIF: Sept. 20-21, 2012

Register online at www.cdfa.net

Development Finance Certified Professional Program *get certified*

CDFA's Development Finance Certified Professional (DFCP) Program is the industry's only comprehensive development finance professional certification program. Graduates of the DFCP Program gain valuable knowledge and experience within the complex development finance industry and achieve a level of understanding unmatched by any other professional certification program. Getting started is easy:

1. Visit www.cdfa.net to see the current list of courses.
2. Register for an upcoming CDFA Training Institute course.
3. Pick 5 other courses to take over the next 3+ years.
4. Start down the road to personal and professional advancement!

Learn more at www.cdfa.net and jumpstart your career today.



CDFA-Stern Brothers & Co. Renewable Energy Finance Webcast Series



Stern Brothers & Co.
INVESTMENT BANKING SINCE 1917

in partnership with



Upcoming Webcasts

CDFA – BNY Mellon Development Finance Webcast Series
Tuesday, March 20, 2012 @ 1:00pm Eastern

CDFA – Stone & Youngberg Tax Increment Finance Webcast Series
Thursday, April 5, 2012 @ 1:00pm Eastern

CDFA – Stern Brothers Renewable Energy Finance Webcast Series
Thursday, May 3, 2012 @ 1:00pm Eastern

CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

in partnership with



For More Information



Les Krone

Managing Director

314-743-3054

lkrone@sternbrothers.com



Katie Kramer

Director, Education & Programs

614-224-1316

kkramer@cdfa.net



Lewis Milford

President

802-223-2554

lmilford@cleangroup.org

CDFA-Stern Brothers & Co.
Renewable Energy Finance
Webcast Series



Stern Brothers & Co.
INVESTMENT BANKING SINCE 1917

in partnership with

