PHASE I
PHASE I
PHASE II
PHASE II
THANK YOU
City of Stamford, CT

Thomas Madden, AICP
Director of Economic Development
November 11, 2007, the City of Stamford established an Energy Improvement District.

Intent to provide property owners with the means to create alternative energy systems including distributive generation, combined heat and power, and renewable energy systems and to do so in partnership with other properties.
Harbor Point
Downtown
Contact

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NY Green Bank Overview
Agenda

Background
- Introduction
- New York’s Energy Landscape
- The Opportunity
- Market Gaps & Barriers

About & Approach
- Mission
- Investment Criteria
- Product Offerings
- In Scope & Out of Scope

Partnering with Us
- Open Solicitation
- Announced Transactions
Background
Reforming the Energy Vision (REV) is New York’s comprehensive strategy to create an efficient, reliable and affordable clean energy system.

### Pillars of REV

<table>
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<tr>
<th>Groundbreaking Regulatory Reform</th>
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<tbody>
<tr>
<td>REV Regulatory Proceeding</td>
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</table>

**Leading by Example**

Using the State’s Energy Assets
(Ex. NYPA Build Smart; NYSERDA NY-Sun)

**Evolution of State Programs**

Clean Energy Fund
NY Green Bank
Enormous potential: Recent Booz & Co. study estimates market opportunities for New York-based clean energy projects over the next ten years ~ $85B

NYGB operates at the near-frontier of current commercial markets, facilitating the evolution and expansion of those markets. With greater private sector investments in one area, NYGB moves to the next near frontier.
Market Gaps & Barriers

New York’s clean energy marketplace is constrained by current market gaps & barriers

Common clean energy transaction issues for private sector financiers

- Unfamiliar structures
- Multiple risk exposures
- Lack of sponsorship
- New counterparty credits
- Minimal standardization
- Lack of industry and product coverage clarity
- Uncertainty as to scale
- Small transaction sizes
About & Approach
To accelerate clean energy deployment in New York State by working in partnership with the private sector to transform financing markets

**Key Elements and Objectives**

- $1 billion State-sponsored specialized finance entity (not a bank)
- Stimulate faster, more extensive deployment of clean energy assets
- Ultimately reduce need for government participation
Credit quality is paramount in the evaluation, structuring and negotiation of NY Green Bank’s investments.

### Minimum Requirements

- NYGB capital will be repaid and will earn appropriate market rate
- Transactions will lead to reduced greenhouse gas emissions
- Investments result in greater private sector capital deployed into the sector

### Additional Considerations

- Involve one or more private sector financial parties
- Wholesale (not retail) markets
- Economically/technically feasible
- Unique NYGB role
- Financial returns comparable to market expectations
- Involve sufficient client and partner “skin in the game”
### Product Offerings

#### Broad Categories of Capital Solutions

- Credit Enhancement
- Warehousing/Aggregation
- Asset Loans & Investments
- Composite Products

#### Product Pricing

- Rates reflect the following:
  - Risk positions in capital structure
  - Pricing for comparable transactions
  - Commercial expectations of rates when market is more liquid

- We balance various factors in pricing our products, serving as both prudent stewards of ratepayer funds and agent for greater private investment.
NY Green Bank supports transactions that with scale and experience can ultimately be financed by the private sector

<table>
<thead>
<tr>
<th>Priority Activities</th>
<th>Outside NY Green Bank Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Facilitate development of new asset classes and market liquidity</td>
<td>✗ Support transactions without private capital involvement</td>
</tr>
<tr>
<td>✓ Be creative in supporting technically and economically feasible/creditworthy</td>
<td>✗ Accept credit and/or project risks unacceptable to the private market</td>
</tr>
<tr>
<td>transactions</td>
<td>✗ Take unproven technology risk</td>
</tr>
<tr>
<td>✓ Develop and incubate new structures</td>
<td>✗ Provide grants or subsidized capital</td>
</tr>
<tr>
<td>✓ Support standardization and aggregation</td>
<td>✗ Pursue one-off transactions</td>
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</table>
Partnering With Us
Open Solicitation

Visit www.greenbank.ny.gov to view the request for proposals (“RFP”) and instructions for online submission

- Open solicitation invites proposals for financing arrangements and/or transactions meeting our mandate and investment criteria
- Proposals are evaluated on a rolling basis as they are received
- NY Green Bank team is available to discuss potential investment ideas
### Announced Transactions

<table>
<thead>
<tr>
<th>Transaction Partners</th>
<th>Clean Energy Deployment</th>
<th>NYGB Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ameresco</td>
<td>Energy Service Company (ESCO) Project Deployment</td>
<td>Secured Line of Credit</td>
</tr>
<tr>
<td>Bank of America Merrill Lynch</td>
<td>Energy Equipment Financing for Energy Service Companies (ESCOs)</td>
<td>Lease Tenor Extension</td>
</tr>
<tr>
<td>Deutsche Bank</td>
<td>Using Energy Savings Agreements (ESAs) to Grow Commercial Property Efficiency Markets</td>
<td>Senior Debt</td>
</tr>
<tr>
<td>First Niagara Bank, M&amp;T Bank, BQ Energy</td>
<td>Template for Mid-Sized Commercial Solar Projects with New Sources of Capital</td>
<td>Construction / Tax Equity Guarantees</td>
</tr>
<tr>
<td>Renewable Funding, Citi</td>
<td>Scaling up Residential Energy Efficiency</td>
<td>Securitization Credit Enhancement</td>
</tr>
<tr>
<td>GreenCity Power, Tulum Management</td>
<td>Expanding Capital Availability for Scale Commercial Cogeneration Projects</td>
<td>Senior Debt Warehouse / Aggregation Facility</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Capital</th>
<th>Amount ($mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYGB</td>
<td>200</td>
</tr>
<tr>
<td>Third Party</td>
<td>600</td>
</tr>
<tr>
<td>Total</td>
<td>800</td>
</tr>
<tr>
<td>Private:Public Dollars</td>
<td>3:1</td>
</tr>
</tbody>
</table>

3:1 private:public dollars does not fully take into account the recycling of capital.
Proposals Received

Diverse by geography, technology and end-use customer segments

Geography Distribution
- Capital District
- Central New York
- Mid Hudson
- New York City
- Southern Tier
- Statewide
- Finger Lakes
- Not Specified

Technology Distribution
- Energy Efficiency
- Solar
- Wind
- Biomass
- Biogas
- Other

End-Use Customer Segment Distribution
- Large Commercial & Industrial
- Mid-Sized Commercial
- Residential
- Utility-Scale
- Small Commercial & Industrial
- Multifamily
- MUSH

Proposals Received

Diverse by geography, technology and end-use customer segments
Appendix

Sample Transaction Structures (Illustrative Only)

- Senior Tenor Extension
- Tax Equity Guaranty
- Senior Aggregation Facility
- Project Subordinated Debt
- Securitization Credit Enhancement
Senior Tenor Extension

Finance Co.

$100 MM

Global Bank

$100 MM

$50 MM

Senior Debt (10-Year Amort.)

100% Interest

100% Interest

100% Interest

Project X

Project Y

Project Z

EE / DG Asset

EE / DG Asset

EE / DG Asset

ESCOs, developers originate and manage projects

15-Year Leases, ESAs or PPAs entered into with Hosts/Offtakers

Senior Debt (Amort. Years 11-15)
Tax Equity Guaranty (Small Scale Solar Project)

- Tax Equity Investor
  - Partial Gty of Lease Pmts
  - Gty Fee
  - On-going lease payments
  - $10 MM to buy Project

- Developer
  - Partial Gty of Debt Service
  - Construction Financing

- Construction Lender
  - Gty Fee
  - Take-out via Tax Equity funding

Project
Senior Aggregation Facility (Storage Assets)
Project Subordinated Debt (Biomass Feedstock)

- **Developer**
  - Equity: $50 MM

- **Project Co.**
  - Senior Debt: $35 MM
  - Sub Debt: $15 MM

- **Institutional Investors**
  - Senior Debt: $35 MM

- **Generation Assets**

- **Investment Bank**
  - Advisor
  - Placement Agent

- **Rating Agencies**
Securitization Credit Enhancement (Illustrative Only)

- Specialty Finance Co.
- Rating Agencies
- Institutional Investors
- Global Bank
- Term Securitization
- Senior Warehouse Loan
- $75 MM
- Sub Debt
- NY Green Bank
- $25 MM
- $75 MM
- $10,000

- Consumer X
- Consumer Y
- Consumer Z

- Retail Loan
- Retail Loan
- Retail Loan

- $25 MM
- $75 MM
- $10,000
- $10,000
- $10,000

- NY Green Bank
- A Division of NYSERDA

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