

What Investors Want

HOW TO SCALE UP DEMAND FOR U.S. CLEAN ENERGY AND GREEN BONDS



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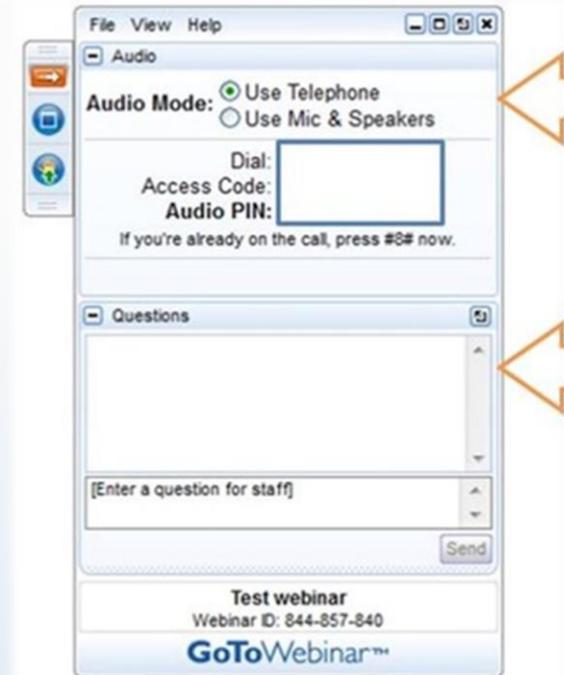


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Clean Energy Group Webinar – January 14, 2015

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Clean Energy Group (CEG) is a leading national, nonprofit, advocacy organization working on innovative technology, finance, and policy programs in the areas of clean energy and climate change. CEG also manages the Clean Energy States Alliance, a coalition of state and municipal clean energy funds.

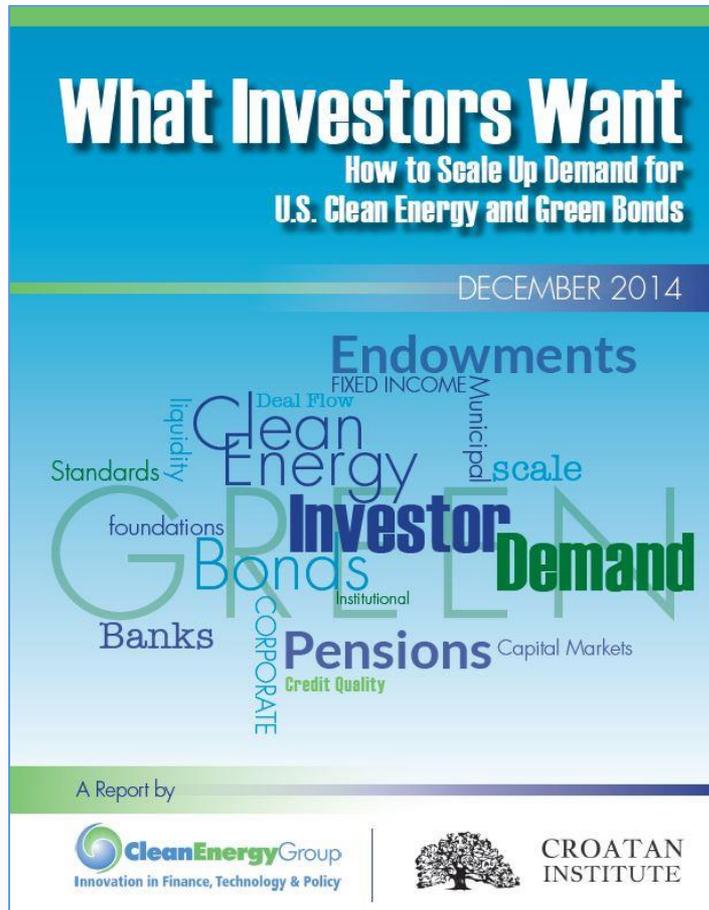
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About the Report



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Thanks to our funders:

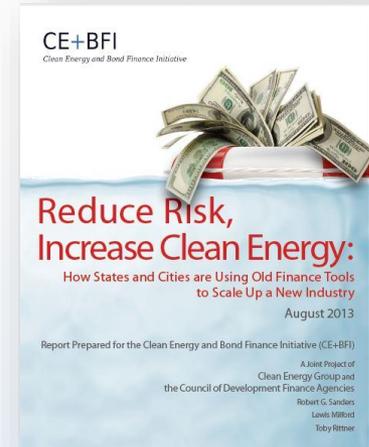
- JPMorgan Chase Foundation
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- Surdna Foundation

CEG – Clean Energy Finance

Clean Energy Group (CEG) works with market participants to implement effective public finance mechanisms.

“Reduce Risk, Increase Clean Energy,” see <http://bit.ly/CEG-Reduce-Risk>

“Clean Energy Finance Through the Bond Market,” see <http://bit.ly/CleanEnergy-bond-finance>



Inquiry Into Investor Demand

- First year: Focus on supply side
 - What are best models of bond financing & credit enhancement to replicate
- This past year: Focus on investor demand characteristics
- Much to learn from institutional investors to scale up clean energy investment

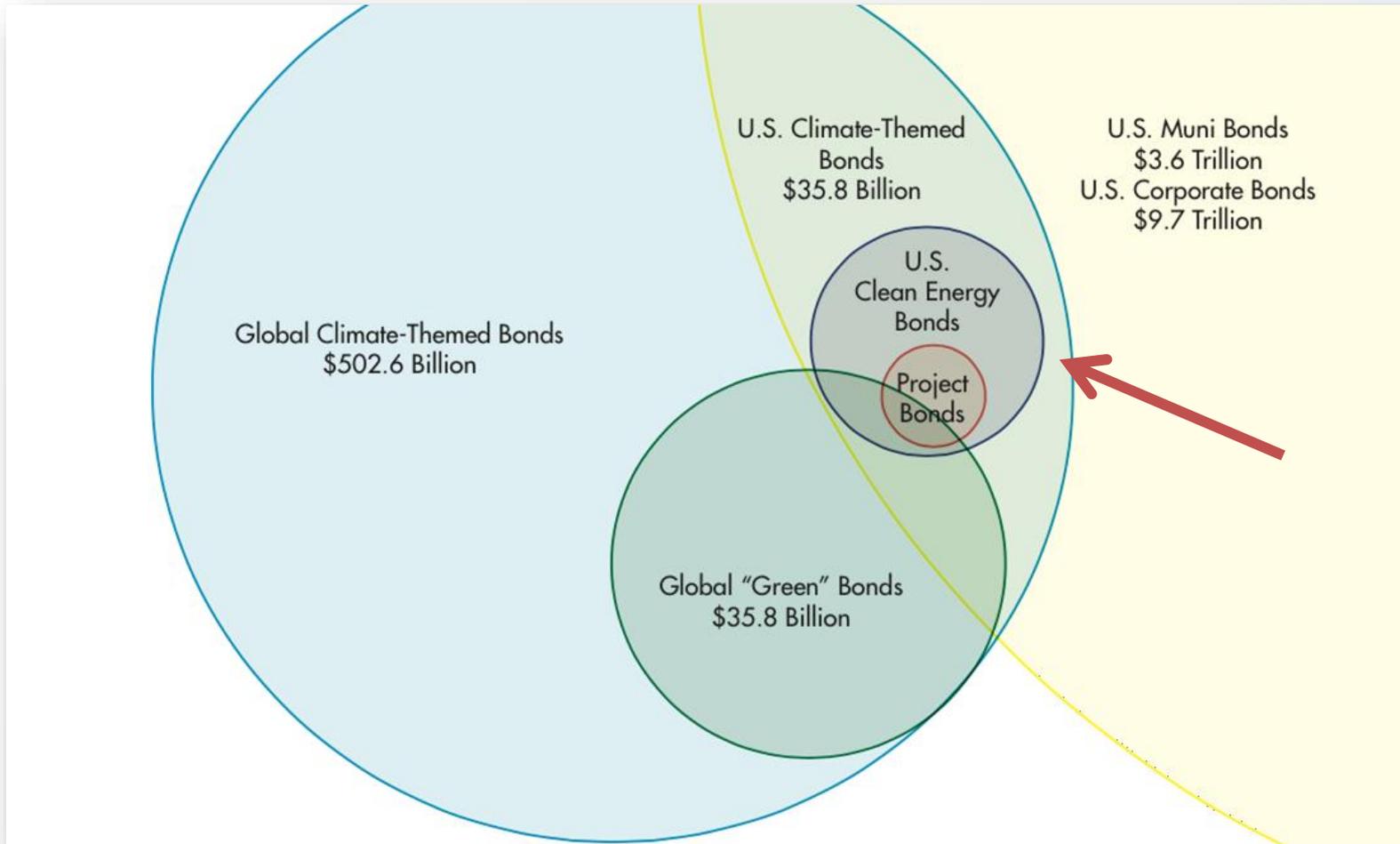
Inquiry Into Investor Demand

- Process / Methodology:
 - Conducted more than 3 dozen interviews
 - Invitation-only convening of investors & funders
 - Held 9/22/14 as a private side event to the 2014 United Nations Climate Summit
 - 2 dozen investors and stakeholders participated

Growing Demand in Clean Energy / Green Bonds

- A blueprint for action
- Long history of clean energy bonds in U.S.
- SolarCity: \$225 million in 2014
- Massachusetts: \$350 million in 2014
- Opportunity to align investments with mission without compromising fiduciary responsibility

The Clean Energy Bond Market



Findings: Demand by Investor Category

- Demand is not homogenous across all categories of investors
- Each institution applies own investment guidelines and policies
- Socially responsible investors (SRIs) & asset managers are only one driver of green bond demand

Findings: Demand by Investor Category

- Wide variance in demand characteristics when examine different categories of investors:
 - Asset managers and investment consultants
 - Foundations and endowments
 - Faith-based investors
 - Investment Banks
 - Corporations and Insurers, and
 - Public pensions

Findings: Asset Managers

- **Conventional Asset Managers, Investment Consultants**
 - Preference for high-quality green bonds with clear performance benchmarks
 - Often require a credit rating to buy
- **SRI Asset Managers**
 - Often more concerned with transparent use of proceeds than green labeling
 - Expect equal financial performance from green bonds
 - Manage money for broad range of clients
 - SRI investors want both taxable and tax-exempt bonds

Findings: Foundations and Endowments

• Divest-Invest Philanthropy

- A growing group of foundations committed to both divesting from fossil fuel securities and “investing” in clean energy & other climate solutions
 - In the past, “reinvestment piece” focused on clean tech private equity and venture capital.
 - Increasingly interested in “green” fixed income securities.
- Foundations who buy green bonds are unwilling to sacrifice returns.

Findings: Faith-Based Investors

- Strong interest in environmental issues, but generally focused on social issues
- Would buy more green bonds if there were a social dimension
 - E.g., clean energy in affordable housing & community facilities projects
- Guidelines may allow for lower grade & some unrated paper
- Interest in a wide range of sizes of issuances

Findings: Investment Banks

- Underwrite to hold for own account & to sell
- Big banks focused on large deals, less on small muni project bonds
- JPMorgan Chase, BofA Merrill Lynch & Citigroup – leaders in creating **Green Bond Principles**
 - <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles/>
 - Framework & process for evaluating environmental impact of green bonds
 - Moves market towards standard disclosures for green bonds

Findings: Corporations and Insurers

- Seek investments across all fixed income markets, at all tenors, across credit spectrum
- Zurich Insurance: will double allocation to green bonds from \$1 billion to \$2 billion
- Largest corporations (3M, Ford, Microsoft) have bought green bonds for treasurers' operating portfolios
 - Also to implement companies' sustainability / corporate social responsibility strategies

Findings: Demand Characteristics of Bond Investors

- **General Observations:**

- Investors who buy green bonds want supply to grow
- Tax-exempt investors (pension funds & faith-based investors) have little interest in most muni bonds
- Problem: insufficient aggregation & non-standardized structures and terms
 - Needs to become “plain vanilla”

Findings: Demand Characteristics of Bond Investors

- **Liquidity**

- Probably most important demand characteristic across all categories of investors
- Essential for funds that require daily pricing & redemptions

- **Credit Quality**

- Wide range of credit requirements:
 - Some want bonds across the continuum from unrated to BB to high quality AAA
 - Some want only high credit bonds, others only lower quality / higher yielding paper

Findings: Demand Characteristics of Bond Investors

- **Size**

- SRI asset managers, foundations & endowments all interested in smaller bond issuances
- Large investment banks & institutional investors need “index-eligible” bonds (agency-rated securities, minimum of \$100 – \$200 million)
- Size concerns mitigated by quality issuers building pipelines of standardized, well-structured bonds

- **Terms**

- Need to be priced similarly to other bonds – no “green premium”

Findings: Demand Characteristics of Bond Investors

- **Use of Proceeds**

- For some, transparency of use of proceeds was central concern
 - Advantage for clean energy project bonds
- Others – if they like the credit and yield, they will buy it

- **Labeling**

- Not all green bonds are alike – investors want information to assess whether meets their “green” criteria

Key Recommendations

- **Further Research and Analysis**
 - Size demand
 - Assess existing opportunities
- **Convening and Collaboration**
 - With separate peer groups of bond buyers
 - With credit rating agencies and underwriters
 - Focus on Fossil Fuel Divestment space
- **Develop, Diversify, and Deepen Deal Flow**
 - Understand, optimize and replicate key models
 - Diversify offerings along yield curves, tenors, and tax exposure
 - Deepen clean energy focus

Conclusion and Next Steps

Conclusions

- Demand is strong but heterogeneous
- Diversification of offerings is key
- Need for investor education

Next steps

- Focus on foundations grappling with fossil fuel divestment
 - Help endowments understand role of clean energy bonds in their portfolios and programs

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