

Clean Energy Bond Finance Model

Bond-Backed Investment Authorities

Full Description

Bond-Backed Investment Authorities (BBIA) are innovative structures enabling state or local governments to launch initiatives supporting investments and other resources for a targeted industry or type of activity. This type of model is best-suited for communities looking to provide a new, or renewed, emphasis on a type of development that has previously received deficient support from the state.

The bond finance mechanism behind a BBIA is simple: a general obligation bond is issued to create immediate capital that is used to fund the authority and its programming. The bond is then paid back over time by the general tax and other revenues of the sponsoring state.

Prior to the issuance of the general obligation bond, the citizens of the sponsoring state typically must pass a ballot referendum authorizing the authority and the bond issue. Although this step creates a challenging barrier to the creation of a BBIA, the step also has long-term benefits to the new programming. The passing of a state-wide referendum means that the concept has popular support from at least a majority of the citizens.

Existing BBIA are limited, with California, Ohio, and Texas providing some of the only well-known models in the country. In the cases of California and Texas, these authorities have provided grants for stem cell and cancer research, respectively. The benefit of the BBIA model for these activities is that the bond issuance process generates upfront capital to fund activities that might otherwise take the state years to set aside.

Ohio provides the more relevant example of how BBIA might be vehicles to support energy development. The Ohio Third Frontier was created to further the development of innovation and technology industries in the state. This BBIA offers technical assistance, commercialization support, an internship program, loan programs, and investment funds in order to improve the targeted industries from multiple angles. This multi-faceted mix of services and business finance can be replicated to other targeted industries and activities throughout the country, including clean energy.

BBIA applied to clean energy would seek to offer a variety of programs to enhance the energy industry within the sponsoring state. Some examples of activities would be: training contractors to implement energy efficiency improvements, providing research grants to investigate advanced energy technology, establishing funds to invest in business and projects providing clean energy, creating credit enhancement programs to support project financing. Including investment funds and lending support programs, as well as charging service fees for other activities, would also enable the BBIA to cover part of the bond repayments, lessening the overall impact of the BBIA's capitalizing bond on the state's overall finances.

The activities supported by energy BBIA would allow for the establishment, or growth, of a robust clean energy economy within states. The mix of programs suggested above could encourage the spread of retrofits, create energy innovation clusters, establish clean energy businesses, and contribute to clean energy generation in the state. This potential makes the BBIA a recommended clean energy finance model for states to consider.

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Summary Description

Bond-backed investment authorities (BBIAs) are publicly-supported initiatives to create a specialized state authority targeting investments and other activities in a stated industry sector. In order to finance the launch and operation of these authorities, a government bond is issued to provide long-term, low-cost capital. The issuances of these bonds have been subject to statewide voter referenda. BBIAs have created innovation clusters in the states that have utilized the model.

Model Profile

Model Type:	Fund	Energy Type:	Renewables or Efficiency
Bond Type:	General Obligation	Applying Entity:	State

Model Benefits

- **Targeted Investment** – BBIAs create the ability for a state to make substantial targeted investment to catalyze specific sector growth.
- **Large-scale Funding** – General obligation bonds can provide significant sources of upfront funding with relatively low cost of capital, and tying issuance to a ballot initiative ensures public support for the use of funds and the initiative.
- **Creation of Secondary, Tertiary, etc. Programs** – Authorities can use proceeds to fund a variety of programs, further expanding the impact on desired industry.
- **Revenue Generation** – Successful implementation of loan and investment programs by the BBIA can assist repayment of the bond and provide a source of repayment that is not tax-dependent.

Model Shortcomings

- **Public Debt** – The primary financing mechanism for this model relies on general obligation bonds issued by the state government, which results in additional debt to the state.
- **Identifying Performance Measures** – Existing BBIAs have targeted newly-emerging industry sectors, providing limited opportunities for immediate evaluation of BBIA's performance.
- **Revenue Generation** – The opportunities for the BBIA to create revenue is heavily dependent upon the selected activities: loan and investment programs are more likely to generate a return than research and technical assistance programs.

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Model Applications

- **Ohio's Third Frontier (OTF)** – OTF provides funding to technology-based companies, universities, research institutes and other organizations. Ohio voters approved the \$2.3 billion dollar initiative in 2002 and once again in 2010. The focus of the program is to quickly transition research and technology from idea to marketplace by providing funding to financing gaps.
- **California Institute for Regenerative Medicine (CIRM)** – CIRM provides funding for research, training and facilities grants to for-profit and non-profit institutions throughout California. Established in 2004 after California voters passed the California Stem Cell Research and Cures Initiative, the Institute provides \$3 billion in funding for stem cell research.
- **Cancer Prevention Research Institute of Texas (CPRIT)** – CPRIT was approved by Texas voters in 2007, authorizing the state to issue \$3 billion in bonds to fund cancer research and prevention programs and services in Texas. CPRIT claims to generate \$9.48 for every dollar invested through the Institute.

Locations / Projects that Could Apply the Model

A BBIA could be effectively implemented by any state, or local government, interested in creating an energy-focused authority to invest in renewable energy projects, research, or businesses. The best candidates for this model will likely be communities that have a strong credit rating and a population that is generally supportive of government investment and/or energy development.

Potential Modifications to the Model

- Pair investment authority financing activities with additional finance tools and investments.
- Assist repayment of bond proceeds through loan and investment repayments and fees.

Items for Further Research / Development

- Possibility of issuing non-general obligation bonds, or double-barreled bonds, as capitalization source.
- Additional investment opportunities for this structure: clean energy incubator, project finance investor, clean technology commercialization, etc.

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Additional Resources

The Ohio State University Office of Research: Ohio Third Frontier Program:

<http://research.osu.edu/osu-research/third-frontier-program/>

Ohio Development Services Agency:

http://development.ohio.gov/bs_thirdfrontier/background.htm

Ohio Third Frontier – Innovation Creating Opportunity:

<http://www.cdfa.net/cdfa/cdfaweb.nsf/ordredirect.html?open&id=ssbciconf--otf.html>

How the Ohio Third Frontier Helps Ohio Companies:

<http://www.cdfa.net/cdfa/cdfaweb.nsf/ordredirect.html?open&id=TFCOhio.html>

Making an Impact – Assessing the Benefits of Ohio’s Investment in Tech-based Programs:

<http://www.cdfa.net/cdfa/cdfaweb.nsf/ordredirect.html?open&id=OHImpact.html>

California Institute for Regenerative Medicine Overview & Publications:

<http://www.cirm.ca.gov/about-cirm>

<http://www.cirm.ca.gov/about-cirm/our-publications/cirm-publications>

Cancer Prevention Research Institute of Texas Overview & Reports:

<http://www.cprit.state.tx.us/about-cprit/>

<http://www.cprit.state.tx.us/about-cprit/reports/>

For More Information

About Clean Energy + Bond Finance Initiative (CE+BFI): CE+BFI, created by CEG and CDFA, is working with finance and energy professionals across the country to find ways to increase clean energy investment by an additional \$5 billion to \$20 billion in the next five years. For more information, visit: www.cleanenergybondfinance.org.

About Clean Energy Group (CEG): CEG is a leading national, non-profit advocacy organization working in the U.S. and internationally on innovative technology, finance, and policy programs in the areas of clean energy and climate change. For more information, see www.cleanegroup.org.

About the Council of Development Finance Agencies (CDFA): CDFA is a national association dedicated to the advancement of development finance concerns and interests. CDFA is comprised of the nation’s leading and most knowledgeable members of the development finance community. For more information, visit www.cdfa.net.

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