Better Buildings® CHALLENGE
U.S. DEPARTMENT OF ENERGY

Financing Energy Efficiency in K-12 Schools

December 13th, 2016

1pm EST

U.S. DEPARTMENT OF ENERGY

Agenda

- Financing Energy Efficiency in K-12 Schools
  - Crystal McDonald, DOE (15 minutes)
- Fundamentals of Bond Finance
  - Toby Rittner, President & CEO, Council of Development Finance Agencies (20 minutes)
- Financing Navigator Tool Demo & Third-Party Financing Considerations
  - Joe Indvik, JDM Associates (20 minutes)
- Questions & Answers (30 minutes)

Financing Energy Efficiency in K-12 Schools

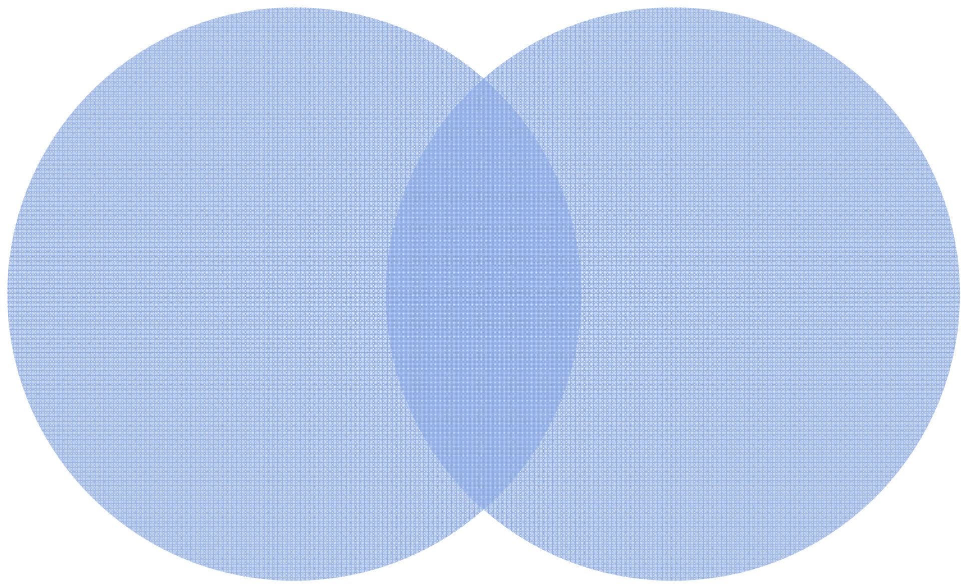
Crystal McDonald, K-12 Schools Lead
U.S. Department of Energy

Financing Energy Efficiency in K-12 Schools

- Education is top sector priority
- Energy efficiency secondary, must compete with other sector concerns
- The need is great
  - Aging facilities
  - Rising utility costs
  - Need for healthy learning environments
  - Increase in plug loads from technology in classroom
- **“Every dollar that pays an unnecessarily high energy bill could be spent for a much better purpose: teaching children.”** *(Loudoun County Public Schools Energy & Environment Team Motto, Loudoun County, VA)*

Understanding the Financing Universe

Program Capitalization
(bonds, grants, appropriations, etc.)



Energy Efficiency Third-Party Financing

Renewables & Generation Third-Party Financing

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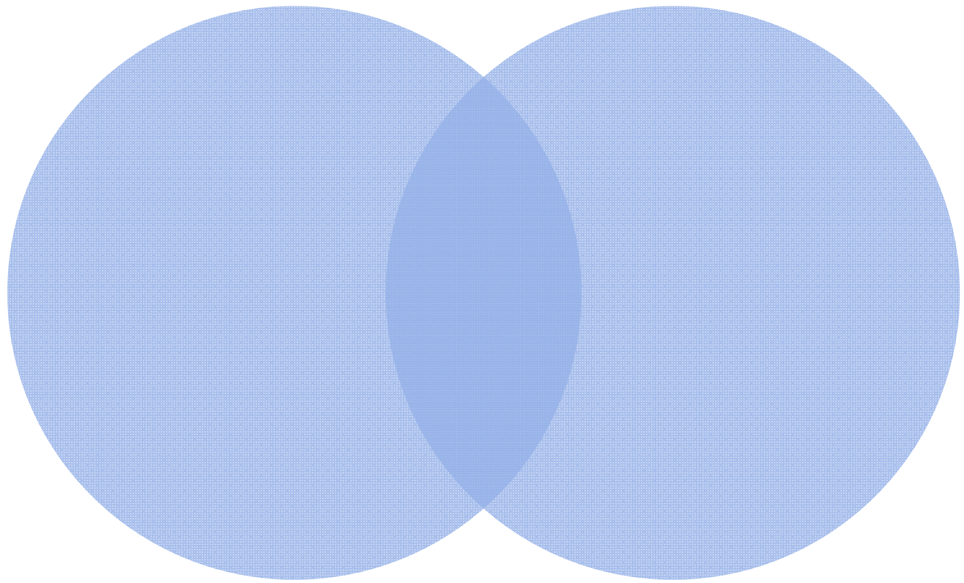

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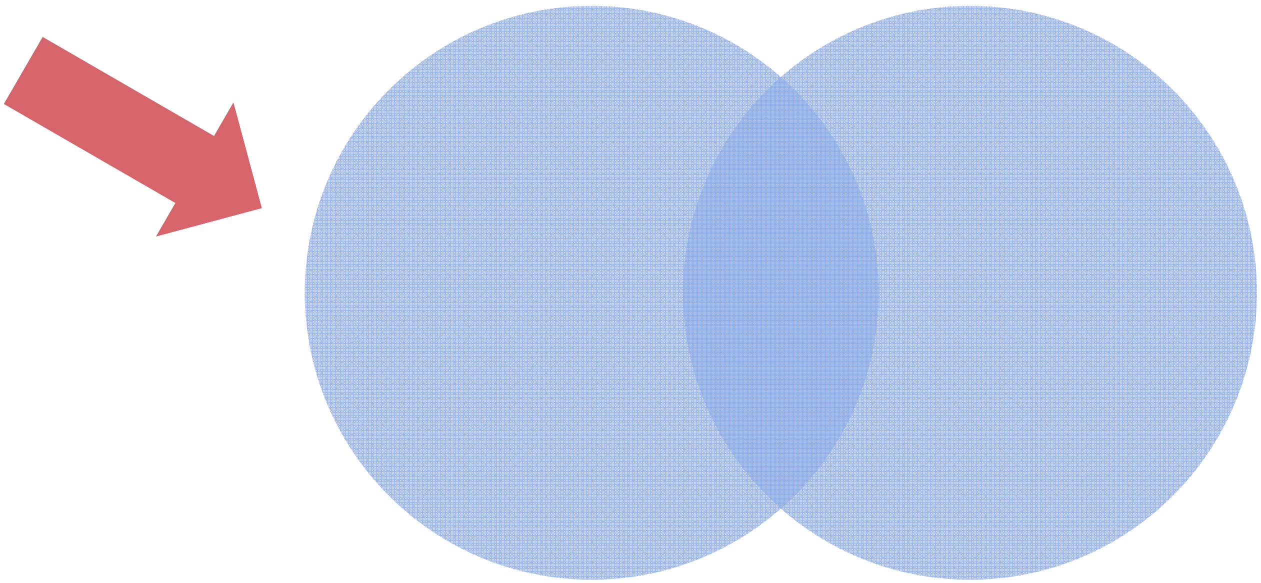

Energy Efficiency Third-Party Financing

Renewables & Generation Third-Party Financing

Fundamentals of Bond Finance

Toby Rittner, President & CEO
Council of Development Finance Agencies

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www.cdfa.net

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Today's Objectives & Course Notes

- About Toby Rittner
- Today's Agenda
- Parameters for training – limited time, need to go much more in-depth
- Questions – ask them!
- Always engage proper legal counsel
- Housekeeping – breaks, electronic slides, etc.

What is Development Finance?

- Development finance is the efforts of local communities to support, encourage and catalyze expansion through public/private investment in physical development/redevelopment and/or business/industry.
- It is the act of contributing to a project/deal that causes that project/deal to materialize in a manner that benefits the long term health of the community.

What is Development Finance?

- Development finance requires programs and solutions to challenges that the local environment creates.
- Economic developers are the bridge between government and business and often direct the vision of a sound financing toolbox.
- Regional advantages can enhance development finance efforts through partnership, cooperation and mutually advantageous programming.

What Does DF Include?

- Debt, equity, credits, liabilities, remediation, guarantees, collateral, credit enhancement, venture/seed capital, early stage, workforce, technical assistance, planning, short-term, long-term, incentives, gap, etc.
- Proactive approaches that leverage public resources to solve the needs of business, industry, developers and investors.

What DF ***Does Not*** Include

- Free handouts and unabashed subsidies
- Duplicative assistance
- Poor due diligence and transparency
- Poor oversight and performance measures
- Irrational responses to immediate challenges

Why is DF Important?

- Businesses need working capital and the ability to invest in themselves
- Developers need assistance to achieve an acceptable ROI
- Communities need infrastructure and amenities
- Citizens need opportunities for advancement – jobs, small business, education, etc.
- Regions need economic prosperity

Development Finance Agency (DFA)

- Development finance agencies (DFAs) can be either public or quasi-public/private authorities that provide or otherwise support economic development through various direct and indirect financing programs.
- DFAs may issue tax-exempt and taxable bonds, provide credit enhancement programs, and offer direct lending, equity investments, or a broad range of access to capital financing mechanisms.
- DFAs can be formed at the state, county, township, borough or municipal level and often times have the authority to provide development finance programs across multi-jurisdictional boundaries.

DFA Examples

- Industrial development authorities, boards or corporations
- Economic development authorities, corporations or councils
- Special purpose authorities (port, transportation, parking, development, energy, air, water, infrastructure, cultural, arts, tourism, special assessment, education, parks, healthcare, facility, etc.)
- Local and community development authorities, corporations or institutions
- Departments of development or commerce and finance authorities, divisions, or departments within state and local government
- Business development corporations, centers or districts
- Development and redevelopment authorities, commissions or districts

High Impact DFA

- Every state has authorizing language to allow for the creation of the DFAs
- DFAs that are able to manage and implement a variety of toolbox programs are considered “high performing”
- For those communities that do not have the means or capacity to create a high performing DFA, partnerships are critical

What is the Market?

- 55,000 bond issuers in the US
- $3.2 trillion municipal bond market
- 2nd most secure market (behind US Treasuries) in the world
- Over 100 years of formal bond financing expertise
- 25,000+ revolving loan funds in the US
- 700 regional EB-5 centers
- Over 700 CDFIs
- 35,000+ public/private economic development entities (not all financing)
- Thousands of banks, institutions, foundations, non-profits and supporting agencies

Landscape of Tools – 100s of Them

Tax-Exempt Bonds

Microlending

New Markets Tax Credits

Linked Deposit Programs

504 Loans

Grants

Tax Increment Finance

Impact Investing

CRA Requirements

Collateral Support

Revolving Loan Funds

PACE

EB-5

Seed & Venture Capital

501(c)3 Bonds

Historic Tax Credits

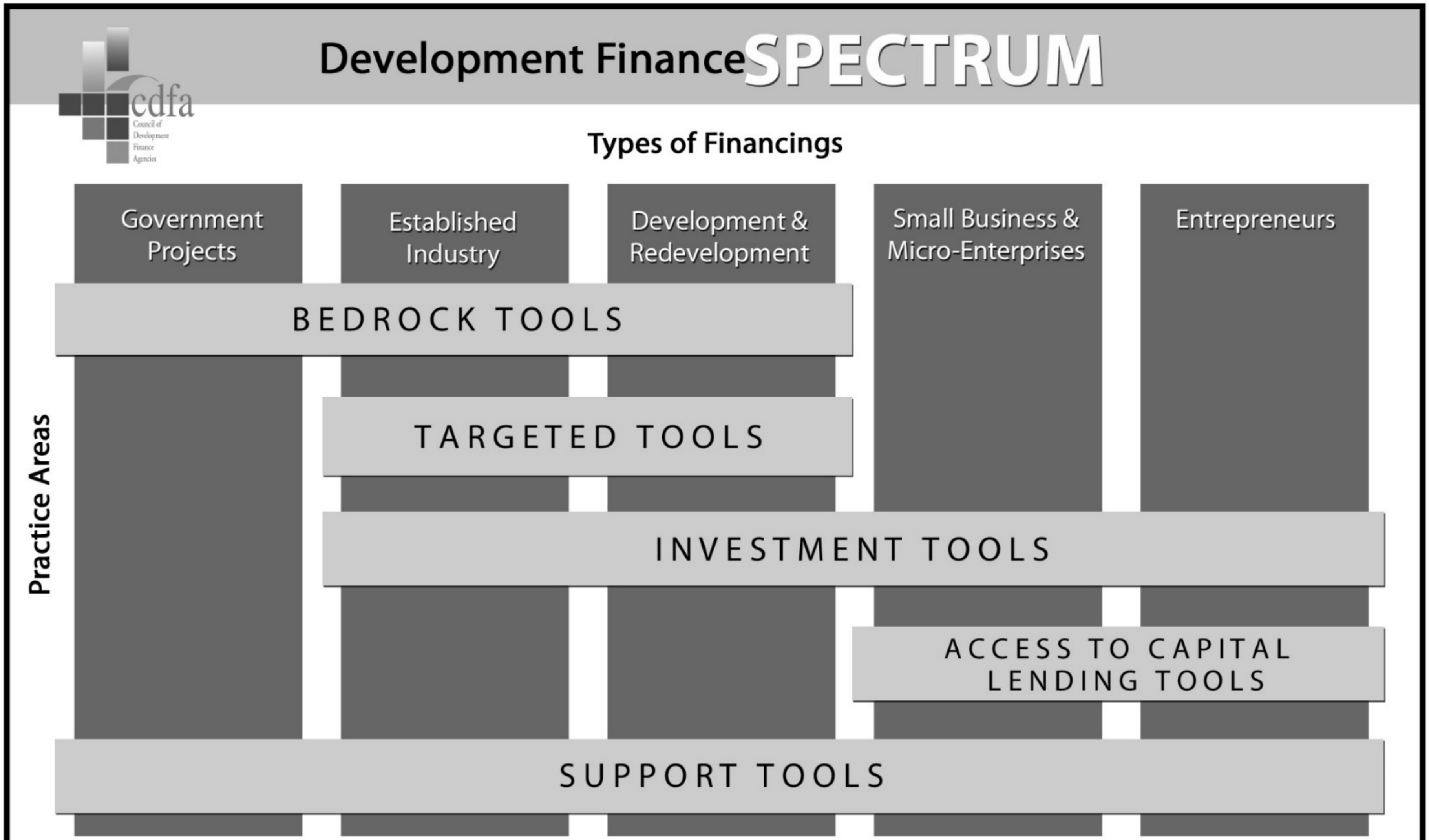
Special Assessment

Industrial Development Bonds

Tax Abatements

Credit Enhancement

Mezzanine Funds



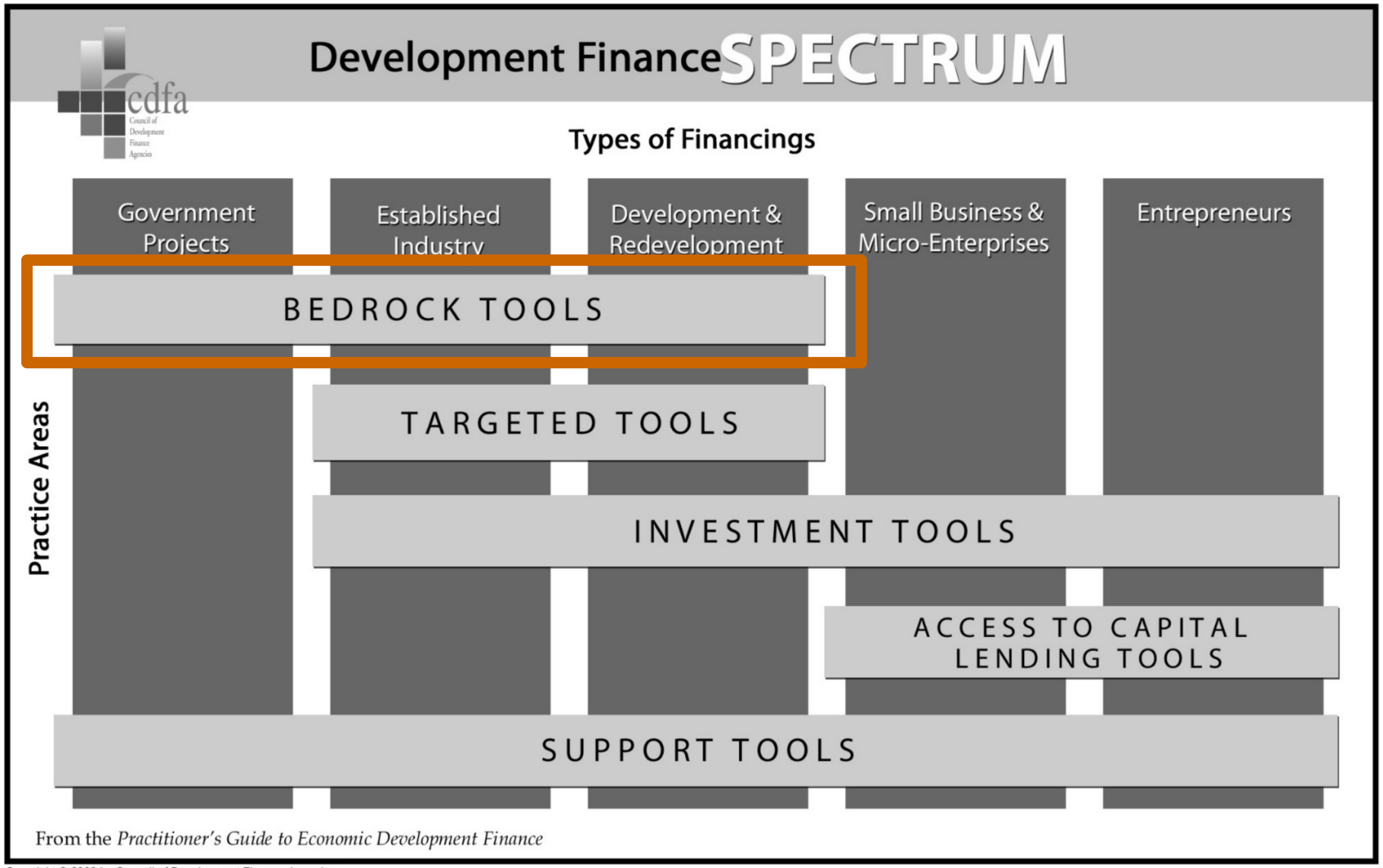
From the *Practitioner's Guide to Economic Development Finance*

The Toolbox & Financing Spectrum

5 Practice Areas

- **Practice Area 1: Bedrock Tools**
  Bonds and the Basics of Public Finance
- **Practice Area 2: Targeted Tools**
  Tax Increment Finance, Special Assessment Districts, Government Districts, Project Specific District Financing & Tax Abatements
- **Practice Area 3: Investment Tools**
  Tax Credits, EB-5
- **Practice Area 4: Access to Capital Lending Tools**
  Revolving Loan Funds, Mezzanine Funds, Loan Guarantees and Microenterprise Finance, Seed & Venture Capital
- **Practice Area 5: Support Tools**
  Federal Funding

Bedrock Tools



Development Finance SPECTRUM
cdfa
Council of Development Finance Agencies
Types of Financings
Government Projects
Established Industry
Development & Redevelopment
Small Business & Micro-Enterprises
Entrepreneurs
Practice Areas
BEDROCK TOOLS
TARGETED TOOLS
INVESTMENT TOOLS
ACCESS TO CAPITAL LENDING TOOLS
SUPPORT TOOLS
From the *Practitioner's Guide to Economic Development Finance*

Bonds

- Bond use dates back over 100 years with the tax reform act of 1986 shaping today's use
- A bond is a loan. A loan is a promise to pay
- Units of government (called issuers) borrow routinely in the tax-exempt bond market by pledging revenues to pay back the bonds (loans)
- Investors (bond buyers) buy these loans and are afforded exemption from income tax on interest income on these investment
- Government (GO) Bonds are tax-exempt, used for public projects
- Private Activity Bonds (PABs) are tax-exempt, utilized for economic development

What do Bonds Finance?

- Roads, bridges, sewers, water treatment plants, dams, city halls, prisons, schools, hospitals, libraries, YMCAs, museums, parks, swimming pools, community centers, universities, stadiums, theaters, music halls, clinics, recycling plants, energy generation facilities, solar fields, small manufacturing facilities, non-profits and thousands of other examples.

Simplified Process

- Issuer identifies project and determines if it qualifies for tax-exempt financing.
- Counsel and underwriters prepare documents, legal opinions and offering statements to price and sell bonds in capital markets
- Underwriter places (sells) bonds to investors in capital markets raising cash for project
- Issuer pledges revenues (taxes, fees, appropriations, proceeds, etc.) to pay back bonds (i.e. loan)

Simplified Process

- Bonds are paid back over course of time with both regular principle and interest payments
- Trustee acts as fiduciary agent on behalf of bond holders and manages payments
- Under certain scenarios, issuer may refinance issuance at a later date
- Bond holder receives relief from federal/state income taxes on interest earnings on bonds

Types of PABs

- **Exempt Facility Bonds** – Can be used for airports, docks, wharves, mass-community facilities, etc.
- **Qualified Redevelopment Bonds** – Infrastructure projects that do not meet the requirements of GOs may qualify for tax-exemption if they meet several tests of "qualified redevelopment bonds; " e.g., proceeds used for redevelopment purposes in designated blighted areas, etc.
- **Qualified 501(c)(3) Bonds** – Bonds used to finance projects owned and used by 501(c)(3) organizations. Two types - hospital bonds and nonhospital bonds
- **Qualified Exempt Small Issues** – IDBs for qualified manufacturing projects including purchase, construction, extension and improvement of warehouses, distribution facilities, industrial plants, buildings, fixtures and machinery.
- **Aggie Bonds** - Support beginning farmers and ranchers with eligible purchases of farmland, equipment, buildings and livestock.
- **Other Revenue Bonds** – Allow revenue-generating entities to finance a project and then repay debt generated revenue. Toll roads and bridges, airports, seaports and other transportation hubs, power plants and electrical generation facilities, water and wastewater (sewer).

Types of PABs

- **Qualified Zone Academy Bonds (QZAB)**

Tax credit bond that allows schools to borrow through bond market at little to no cost. Very low cost source of financing. Generally managed through state boards of education or state development finance agency.

- **Qualified School Construction Bonds (QSCB)**

Simple tax-exempt bond instrument available to public school systems for construction. Used very frequently

Creative Bond Programs

- **Mini Bond Programs** – Streamlined approach to issuing bonds to address capital needs of smaller borrowers. Standardized language, application, processing and fees. Less red tape translates into lower borrowing costs. Great example for how smaller development agency can actively issue bonds.

- **Bond Banks** – State sponsored issuers that provide municipal clients access to lower costs borrowing through the capital markets. Leveraging the powerful credit enhancement of the state behind larger pooled issuances. Can be done on regional level too.

Why Communities Use Bonds?

- Opportunity to invest in projects and businesses and the ability to influence ROI in development projects
- Easy to promote and monitor with performance measures
- Low cost and secure source of support to industry
- Can issue on conduit basis without backing (IDBs)

Why Industry Uses PABs?

- Lower interest rates (conventional loans vs. tax-exempt)
- Tax-exempt status to buyers of bonds – attractive
- Lower cost to borrower
- Cheaper money (but not free)

Important Players

- **Issuers** – 55,000+ nationwide, must have authority to issue
- **Bond Counsel** – legal public finance experts
- **Underwriters** – sells and/or places the bonds in market
- **Trustee** – fiduciary agent for the bondholders
- **Investors** – those who actually purchase the bonds
- **Financial Advisor** – independent reviewer for issuer
- **Rating Agencies** – independent credit review entities

Notes on PABs

- Market forces at play – when traditional interest rates are low, bond use tails off, when traditional interest rates go up, bond issuance tends to go up
- Need good bond counsel on transactions – don't risk an issuance going taxable if it is not a qualified PAB
- Many rules and regulations – learn the programs before making any determinations

Financing Navigator Tool Demo and Third-Party Financing Considerations

Joe Indvik, JDM Associates

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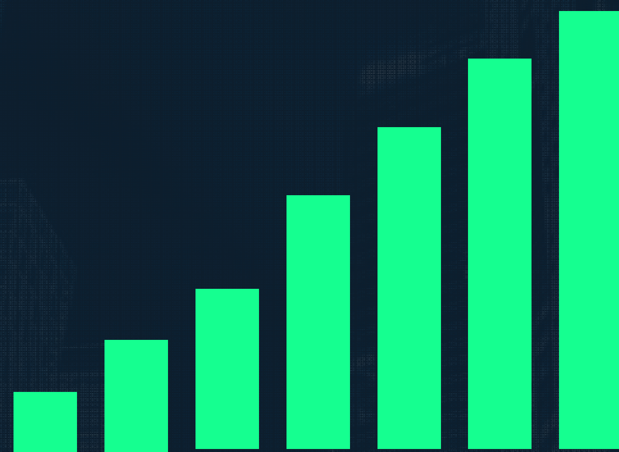
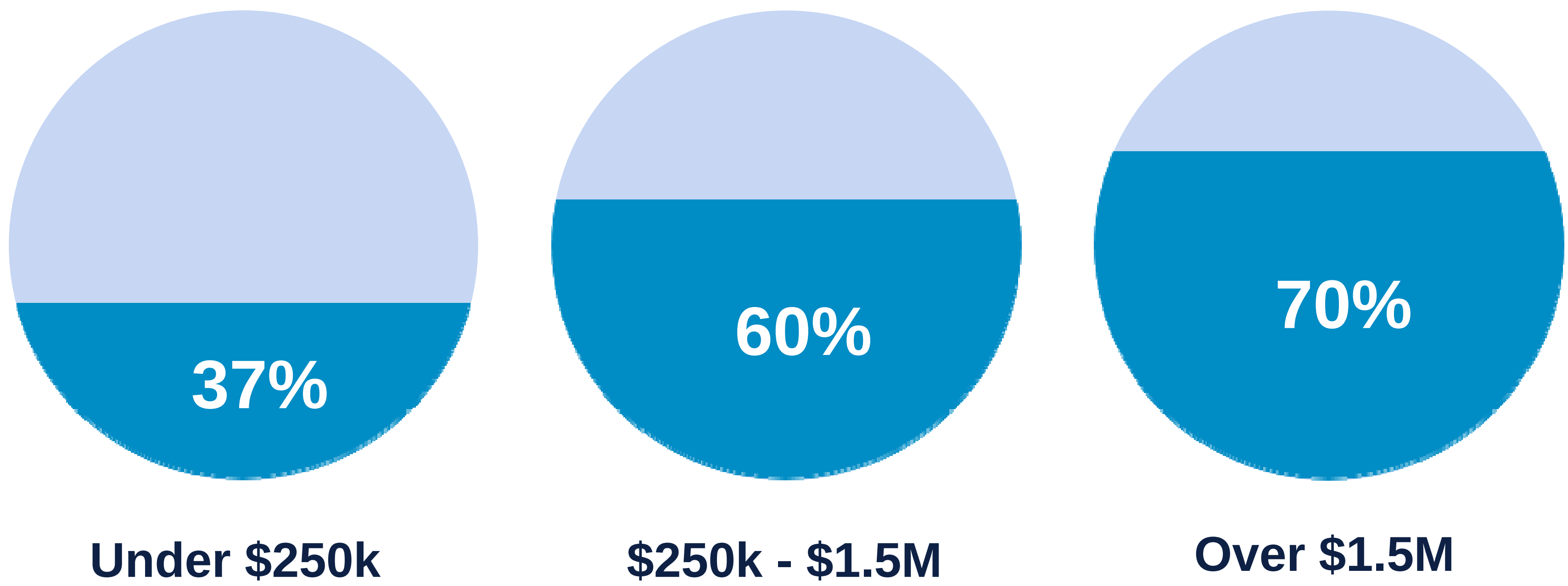
Takeaways:

- Understand the energy efficiency financing market
- Know how to use the Navigator to find financing options that work for your school and connect with potential providers



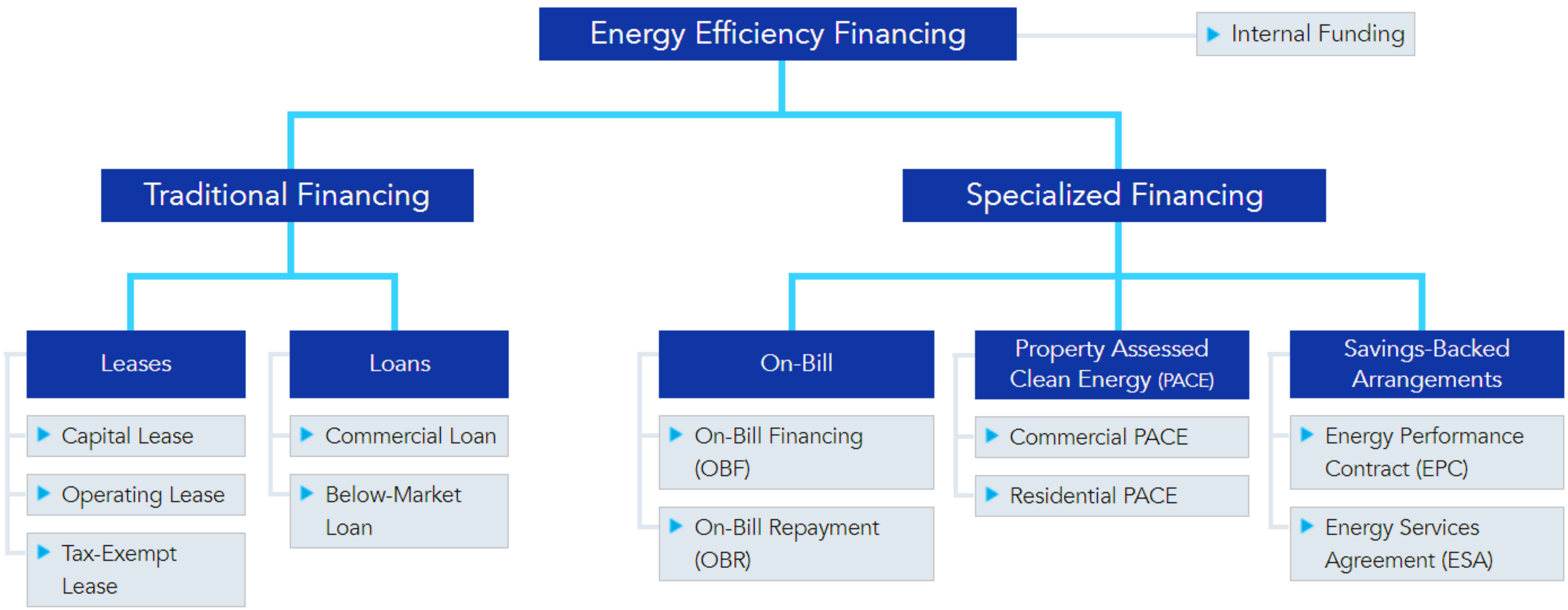
State of the third-party efficiency financing market

Easily Accessible Financing by Project Size



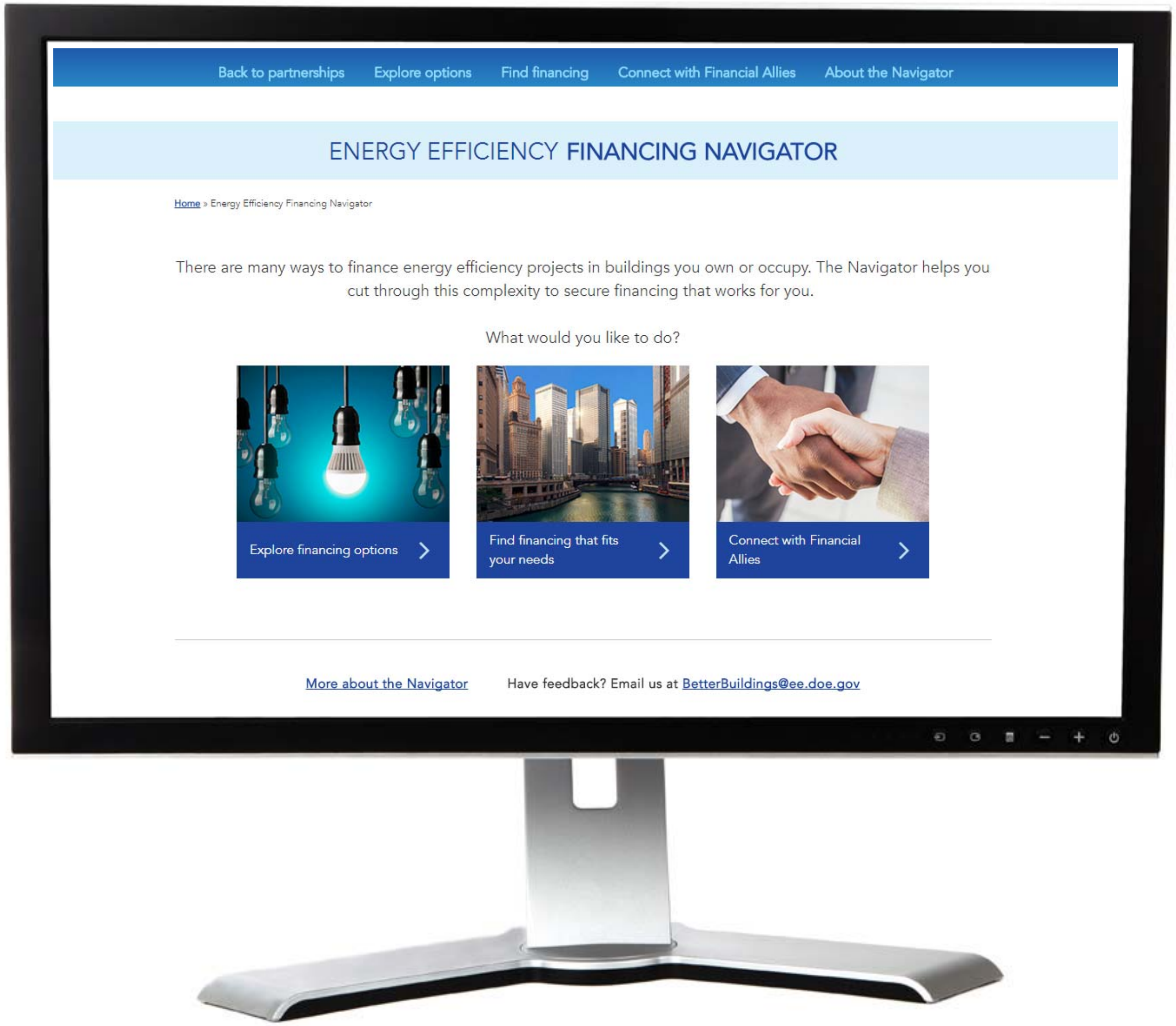
Source: Efficiency Financing And Insurance Survey (Joule Assets, 2013)

Financing Options Available in the Market



Source: Better Buildings Financing Navigator

ENERGY EFFICIENCY FINANCING NAVIGATOR



[Live Demo]

[Energy Efficiency Financing Navigator]()

DOE Tools & Resources

- State and Local Solution Center: Pay for Clean Energy
- Current Practices in Energy Efficiency Financing
- Financing Energy Upgrades for K-12 School Districts
- K-12 Schools Project Performance Benchmarks
- Energy Savings Performance Contracting: A Primer for K-12 Schools

Questions & Answers

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