LBE 101: Financing State LBE Efforts

Introduction:

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U.S. DEPARTMENT OF
ENERGY

Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

Financing State Lead-by-Example Efforts

Prepared for 2019 National Governors Association Lead-by-Example Workshop

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Why Financing?

- **Opportunity Cost**
  - Unlike many other investment priorities, energy efficiency is compatible with financing because the cost savings are often immediate, measureable, and reliable.

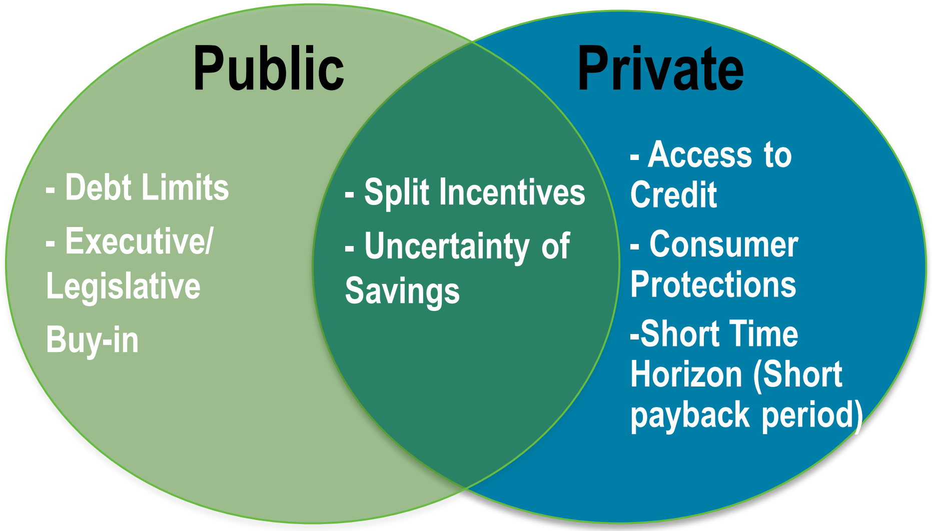
- **Scale and Speed**
  - Financing expedites and extends the reach of efficiency improvements beyond what is possible with appropriated funds.

Foundational Concepts

- **Financing to Support Lead-by-Example (Public Bldgs.) vs. Private Buildings**
  - Financing needs to be tailored to address barriers unique to the market it will serve.

- **Financing Products vs. Financing Programs**
  - A financing *product* addresses a unique set of finance barriers. A financing *program* can address <u>both</u> finance and non-finance barriers.

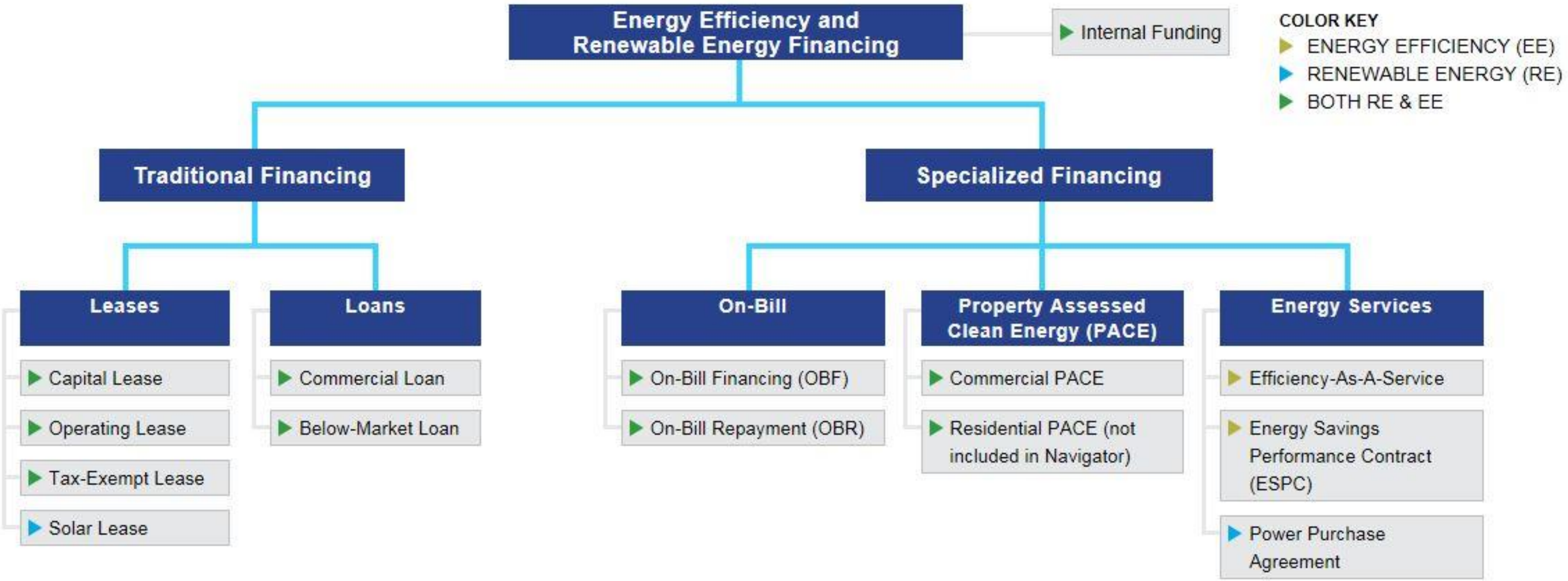
Barriers to Financing by Sector



Potential Functions of a Financing Program

- ✓ Educate Users and Market Benefits
- ✓ Offer Technical Assistance
- ✓ Provide Quality Assurance and Quality Control
- ✓ Measure and Verify Outcomes

Energy Efficiency Financing Products

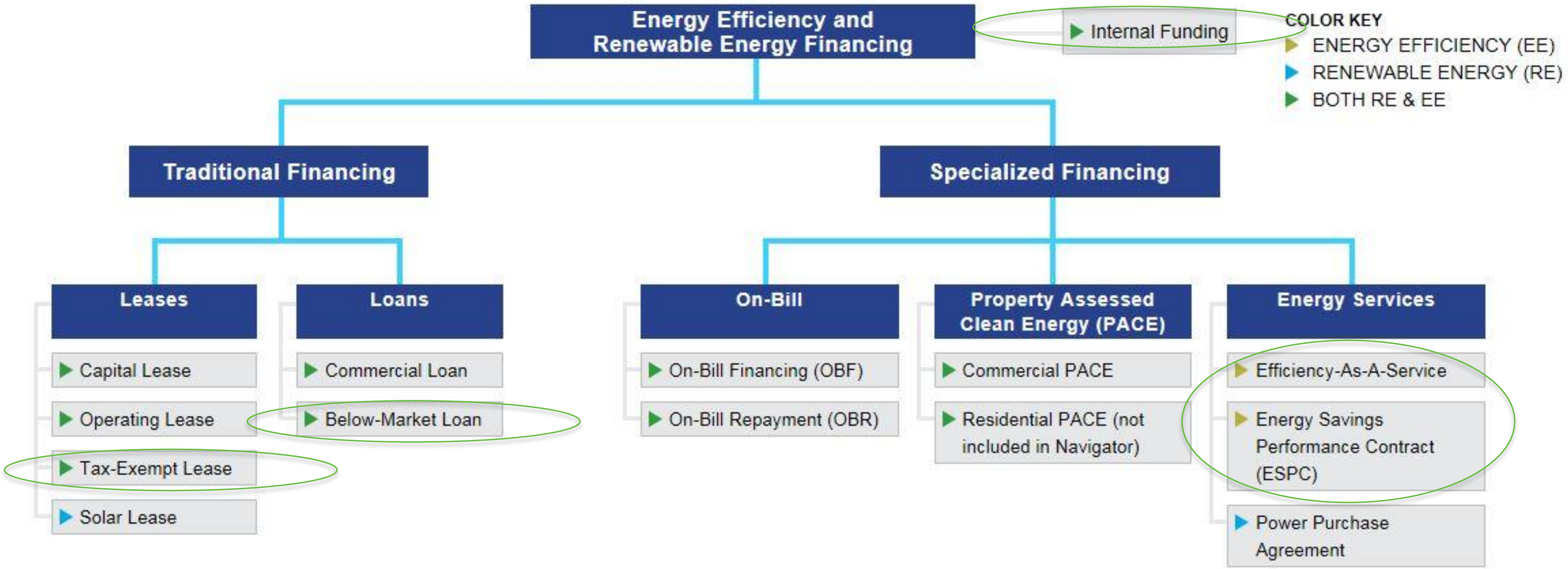


Source: Better Buildings Financing Navigator. See: https://betterbuildingssolutioncenter.energy.gov/financing-navigator.

NOTES:

- Bond financing may be used for project financing or to capitalize a fund (e.g., revolving loan fund).
- Below-Market Loans include revolving loan funds and loan funds supported by a credit enhancement (e.g., loan loss reserve, loan guarantee).

Energy Efficiency Financing Products for Lead-by-Example



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Comparisons: Common Lead-by-Example Financing Options

	Internal Funding	Loans	Tax-Exempt Leases	Bonds	Energy Savings Performance Contracts	Efficiency-as-a Service Agreements
Primary Advantages	Always non-debt, well understood.	Expedient, well understood, maximum control over equipment.	Expedient, zero down payment, maintenance is standard, potential accounting benefits.	Often yields the lowest cost financing.	Guaranteed savings, low performance risk, no- or low-upfront capital payment.	Payment based on performance, potential accounting treatment benefits.
Primary Disadvantages	Competes with other funding priorities, limited funds reduce project size and potential benefits.	Often requires down payment, higher cost of borrowing, counts as debt.	May not serve smaller projects, no offer of performance guarantee.	Bond issuance is very complex, best suited for projects >$1M.	Best suited for projects >$.5M, long closing times from contract/legal negotiations.	Best suited for projects >$1M, long closing times, limited equipment control.
Risks to Consider	Performance and maintenance risks.	Performance, maintenance, and credit risks.	Performance risk.	Performance, maintenance, and credit risks.	Minimizes performance, maintenance, and credit risks.	Minimizes performance, maintenance, and credit risks.
Notes	Funding may come from operating or capital budgets.	Revolving loan funds may offer lower borrowing costs, but this introduces other complexities.	There is no energy savings guarantee, but operation and maintenance services are standard.	May be structured as a non-debt revenue bond (e.g., backed by a performance guarantee).	The underlying financing is often tax-exempt leases or bonds.	Considered non-debt because payment only required if performance criteria met.

Source: Adapted from "What are the Options: Pathways for Financing Energy Audits and Upgrades in Small and Medium Public Facilities." Forthcoming DOE publication.

Discussion

Questions to Consider….

1. What are promising practices for achieving **executive buy-in** to use financing?
   I.e., How have states successfully engaged with their Governors on this topic?

2. Which **financing products** have demonstrated a track record of success in your state?
   E.g., ESPC, leasing or a master leasing program, a revolving loan fund, bond issuances.

3. Which elements of a **financing program** have proven effective in your state?
   E.g. technical assistance, pre-approved vendors and documentation, EM&V etc.

4. What are the **barriers** to using financing to achieve lead-by-example energy efficiency upgrades in your state?

U.S. DOE Efficiency Financing Resources

- ***Understand and Explore All Financing Options***
  - Current Practices in Efficiency Financing: An Overview for State and Local Governments
  - Better Buildings Financing Navigator
  - State and Local Solution Center: Pay for Energy Initiatives

- ***Access Specialized Lead-by-Example Financing Resources***
  - Better Buildings Public Sector Energy Financing Primer *Print copies available!*
  - Energy Savings Performance Contracting (ESPC) Toolkit
    - ESPC Financing Decision Tree
  - National Association of State Energy Officials (NASEO) Financing Resources

- ***Stay Engaged with DOE***
  - Email us at: stateandlocal@ee.doe.gov
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Thank You!

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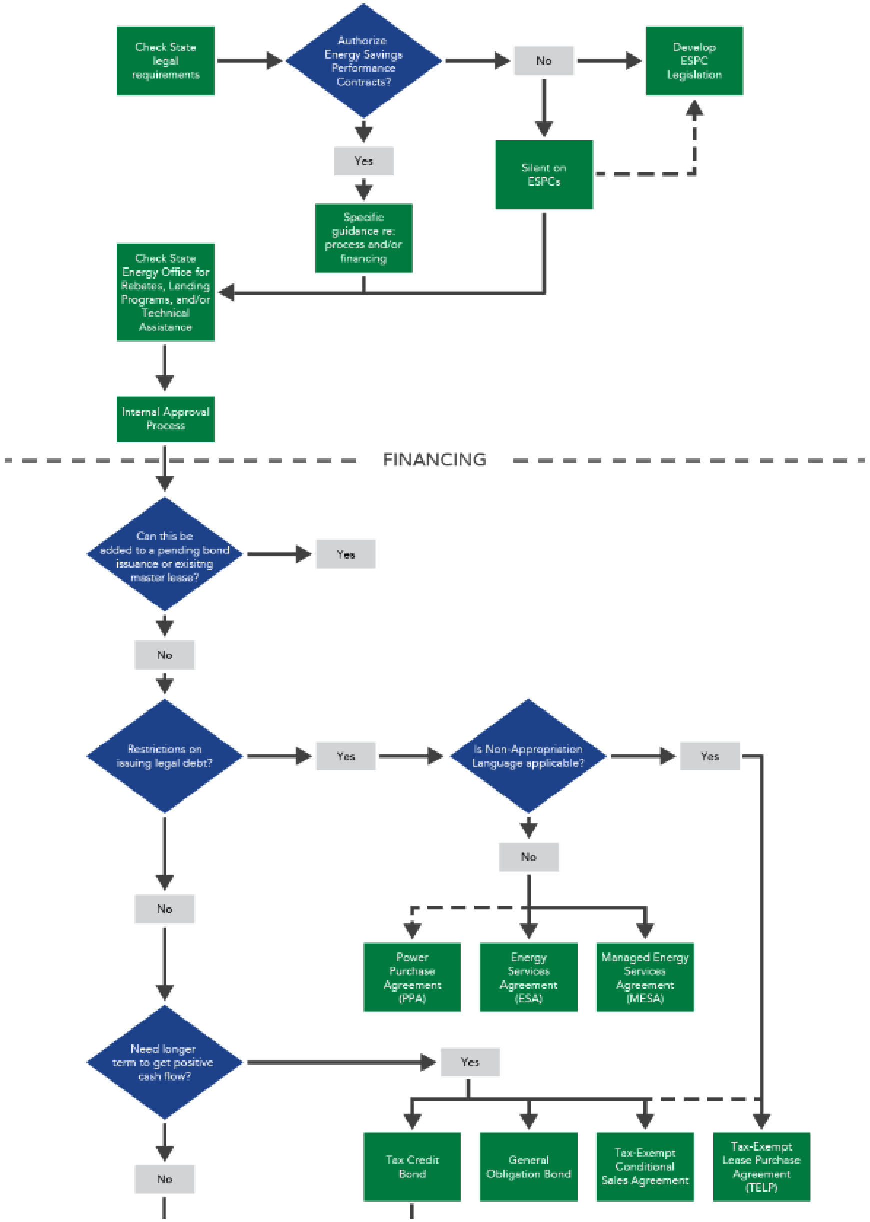
State and Local Solution Center
http://energy.gov/eere/slsc/state-and-local-solution-center

Appendix

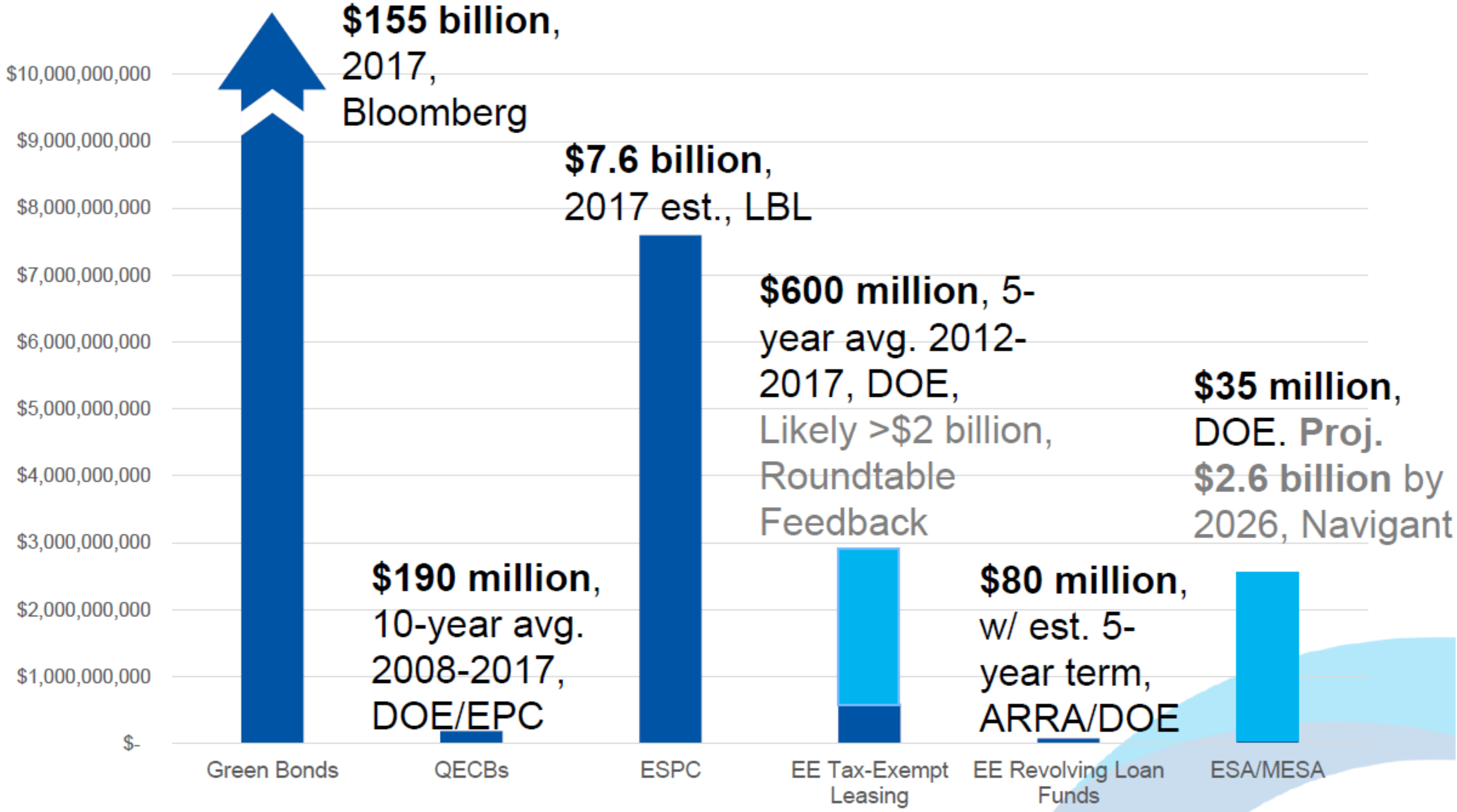
ESPC FINANCING DECISION TREE

This flowchart walks users through questions corresponding to the considerations that go into deciding on the financing options available for state and city government ESPC projects. The tool includes a mini-glossary of each financing type. Click on individual financing options below the dashed financing line to get a description of the option and some pros and cons to consider. *(Please note that the Decision Tree may not function properly in Internet Explorer.)*



Source: Energy Saving Performance Contracting Toolkit, [ESPC Financing Decision Tree]

Annual Market Sizes Compared



Note: ESPC is often funded via bonds and tax-exempt leasing so these are not mutually exclusive.

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Source: Slide prepared by Phillip Quebe, Cadmus, for 2018 Better Buildings Summit LBE Financing Roundtable