

DRAFT: DO NOT CIRCULATE

Energy Efficiency Financing Foundations

Training for Public Sector Facilities Managers and Finance Officers

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ENERGY TECHNOLOGIES AREA | ENERGY ANALYSIS AND ENVIRONMENTAL IMPACTS DIVISION | ELECTRICITY MARKETS & POLICY

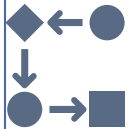


Module 3

Traditional Financing Product Structures



Learning Objectives



Introduce and explain traditional public-sector financing products



Explore product subcategories common in public-sector financing



Weigh advantages and disadvantages of each specific product type



Compare across the menu of product types



Types of Traditional Financing Products

Loan

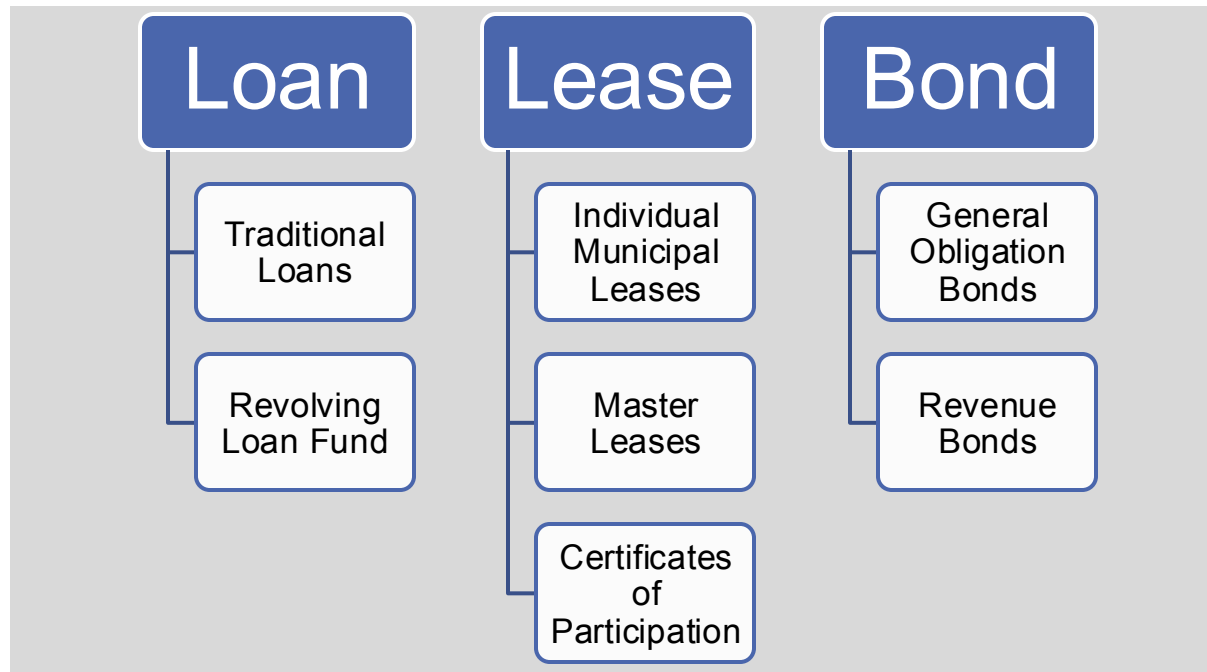
Contract in which a financial provider disburses money in exchange for a promise that it will be repaid with interest over time.

Lease

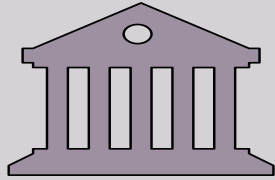
Contract in which one party agrees to pay another party for the use of real property or equipment.

Bond

Contract under which investors provide money to an issuer in exchange for an agreed-upon series of repayments.



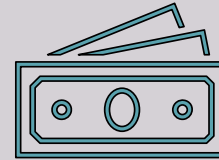
Loans



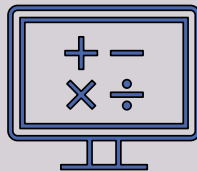
Customers can borrow money directly from banks or other lenders



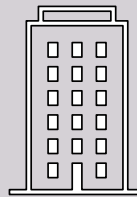
Loan financing also offered by many equipment manufacturers, vendors, and contractors



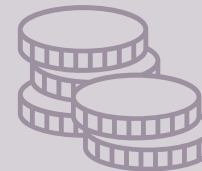
Often requires a down payment



Interest rates may be higher due to restrictions on security, guarantees, and default provisions



Often secured by real property in private sector, but not typically in public sector



In some locations, below-market-rate loans may be available for energy-related projects

Loan Financing Structure



[Learn More](#)

Loans: Advantages

✓ WIDELY AVAILABLE AND QUICK TO CLOSE

Manufacturers, vendors, and installers frequently offer loan financing as part of the equipment sale, making it easy to find financing and close the deal quickly. The potential capital available from banks and lenders in the market is very significant.

✓ SIMPLE STRUCTURE

Loans are simple documents that require a low level of effort to execute and administer, and they are well understood by most finance teams.

✓ ENTERPRISE-SCALE FINANCING

Loans can be a good solution for portfolio-wide initiatives. Most lenders are able to finance projects across many facilities simultaneously, or to provide a large loan that can be allocated across multiple projects internally.

✓ REPAYMENT FLEXIBILITY

Many loans are flexible in how quickly they must be repaid, allowing the customer to adjust payments to changing circumstances.

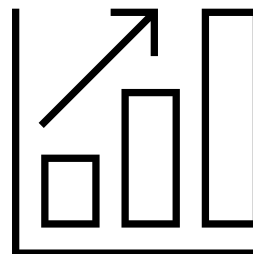
Source: [Better Buildings Financing Navigator](#)



Widely Available



Simple



Scalable



Flexible



Loans: Disadvantages

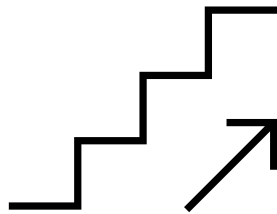
✗ HIGHER INTEREST RATES

Not guaranteed by full “faith and credit” (taxing authority) of issuer, and not typically collateralized by property in public sector. Enforcement actions also restricted against public agencies. “Loans” in this sector must also be held to maturity (non-tradeable); otherwise classified as regulated securities. These various factors combine to produce higher borrowing rates. However, some jurisdictions offer programmatic loan options that are below market rate.

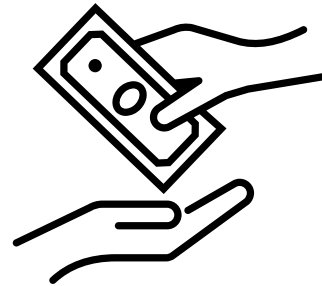
✗ DOWN-PAYMENT OFTEN REQUIRED

Loans often require a down-payment of 20-25%, which may prevent projects from being cash flow positive from day one.

Source (modified): [Better Buildings Financing Navigator](#)



Higher Rates



Down Payment

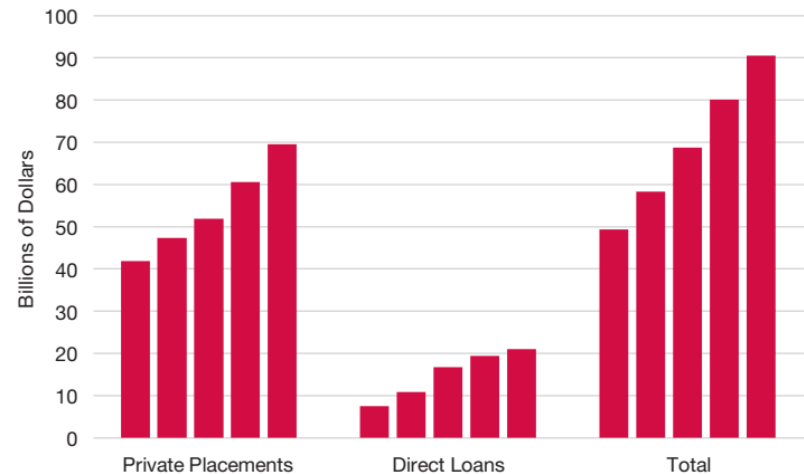


Traditional (Bank) Loans to Public Agencies

- Traditionally less common in public sector than bonds and municipal leases, but growing
- Higher interest rates, shorter terms than bonds
- Less liquid than bonds, which are split up and can be traded on the public secondary market
- Typically come with restrictive covenants
- Less complex than bonds and typically do not require voter approval

Figure 1. California Bank Loans

Municipal securities owned by banks and direct loans made and outstanding, 2012-2016



Source: Municipal Market Analytics & BankRegData

Source: [Stanford Institute for Economic Policy Research, "Risky Business: Bank Loans to Local Governments"](#)

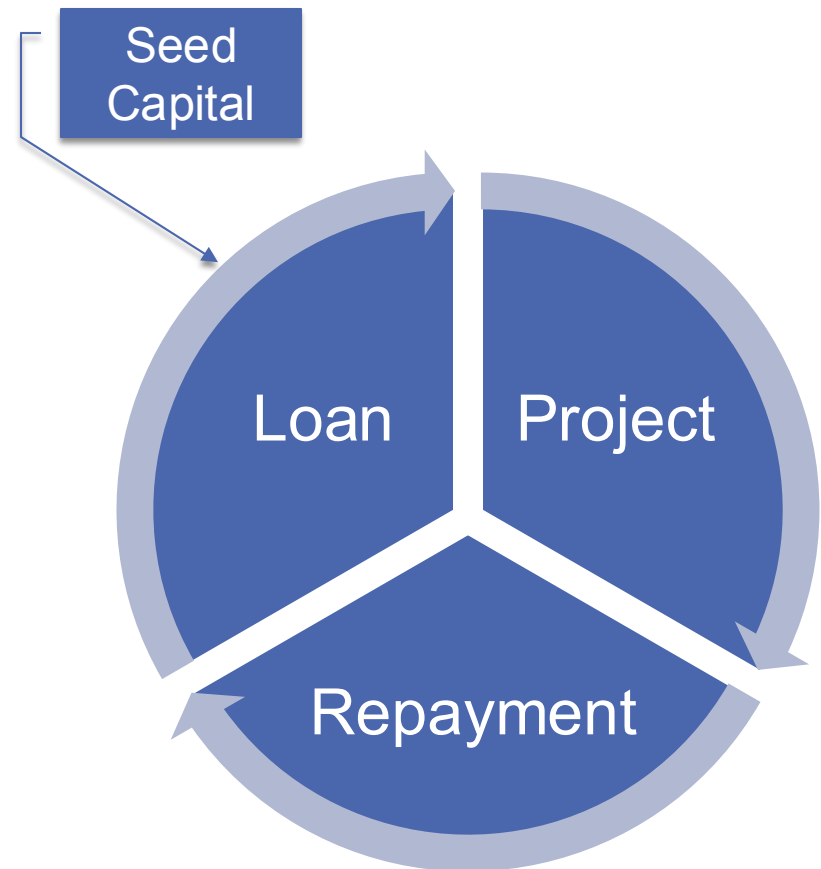
Note: Private placements are investments held by a limited group of investors, including banks, and share some characteristics with direct loans, in that they are not traded openly on the public secondary market.



Revolving Loan Funds (RLFs)

- ❑ Seeded with initial capital source (public-sector RLFs likely to be publicly funded and managed)
- ❑ Repayments used to replenish the fund
- ❑ Creates a self-sustaining source of capital
- ❑ Flexibility with rates, terms, project types if initial capital is flexible
- ❑ May need additional capital if demand grows beyond capital supply

If your school, local government, or state wants to set up its own internal revolving loan fund, learn more [here](#).



Example: Texas LoanSTAR Revolving Loan Fund

Program Description

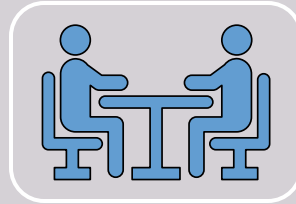
- Purpose of Revolving Loan Funding
 - Improve Texas public institution use of energy and water with low-interest-rate loans to finance energy-related cost-reduction retrofit projects.
- Revolving Loan Fund Capitalization
 - Capitalized with the State's remaining Oil Overcharge and Federal ARRA/Stimulus funds
 - \$200 million loan fund

Source: [Texas State Energy Conservation Office, "LoanSTAR Revolving Loan Program"](#)

For more information on LoanSTAR and other revolving loan programs, see [here](#).



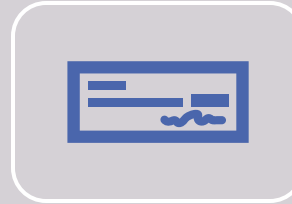
Leases



Offered by leasing companies and other financial institutions



Sometimes available from manufacturer, vendor, or installer



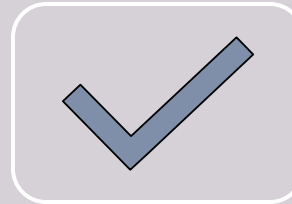
Offers 100% financing



Interest income to lessor is tax-exempt, lowering rate to lessee



Must be calculated on the balance sheet



Can typically move forward without voter approval

Typical Lease Financing Structure



[Learn More](#)

Leasing Advantages

✓ SIMPLE STRUCTURE

Leases are simple documents that require a low level of effort to execute and administer, particularly for smaller scale projects. They are well understood by most finance teams.

✓ 100% FINANCING

Leases typically offer 100% financing (no down payment).

✓ ENTERPRISE-SCALE FINANCING

Leases can be a good solution for portfolio-wide initiatives. Most lessors are able to finance projects across many facilities simultaneously. Some offer enterprise-scale structures where a single master lease is signed with the customer, allowing addenda to be added easily for each individual project.

TAX-EXEMPT LEASING: LOWER COST THAN PRIVATE LEASING

Interest income received from public-sector leasing is tax-exempt, allowing lessor to charge a lower rate for the same value.

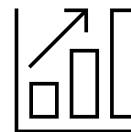
Source (modified): [U.S. Department of Energy, Better Buildings Solution Center](#)



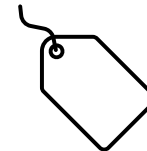
Simple
(Low Transaction Costs)



100%
Financing



Scalable



Lower Cost
Than Private Leases



Leasing Disadvantages

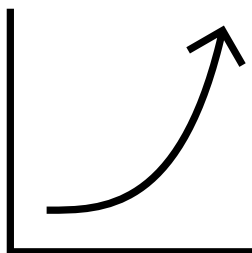
✗ HIGHER INTEREST RATES THAN GENERAL OBLIGATION (GO) BONDS

Not guaranteed by full “faith and credit” (taxing authority) of issuer, and not typically collateralized by property in public sector. Enforcement actions also restricted against public agencies. “Loans” in this sector must also be held to maturity (non-tradeable); otherwise classified as regulated securities. These various factors combine to produce higher borrowing rates.

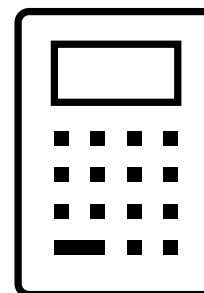
Source (modified): [U.S. Department of Education, Better Buildings Solution Center](#)

ACCOUNTING UPDATE (2019)

- A key advantage of municipal leasing in the past was off-balance-sheet accounting treatment, which circumvented debt limitations by including a “non-appropriations clause” in the lease agreement freeing the lessee from payment obligations if funds were not appropriated to pay leasing costs.
- However, the Government Accounting Standards Board (GASB) has recategorized most leases as on-balance-sheet if the lease period is greater than one year and appropriations are reasonably expected, which applies to most energy conservation measures. Some state statutes may still allow municipal leasing without voter approval, despite accounting changes.



Higher Rates than GO Bonds



Now Treated as On-Balance-Sheet



Municipal (“Muni”) Leases

- Also known as Tax-Exempt Lease-Purchase Agreements (TELPs)
- Under new accounting rules, municipal leases are considered debt (“rental” payments are now considered financing payments toward ownership)

What is a Municipal Lease?

A Lease/Purchase Agreement, pursuant to which:

- A state or local government as the Lessee (*a/k/a* the “borrower”)
 - 1) purchases specific real or personal property from the Lessor (*a/k/a* the “lender”);
 - 2) is the titled owner of the property (subject to the Lessor’s security interest), and maintains & insures the property;
 - 3) makes periodic rental payments over an agreed-upon term;
 - 4) has rental payments that are subject to annual appropriation (or abatement in CA and IN);
 - 5) receives lien-free ownership at end of term after making all rental payments (i.e. conditional sale or installment sale financing);
- The interest portion of the rental payments is typically tax-exempt.
 - ✓ Section 103 of the IRS code

Source: [Association for Governmental Leasing and Finance, “The Basics of Municipal Leasing”](#)



Master Leases

- ❑ Similar to a line of credit
- ❑ Can be used for multiple projects over time
- ❑ Streamlines approvals and individual transaction costs
- ❑ Higher initial set-up costs and complexity
- ❑ May be administered through a centralized agency, which may offer a higher credit rating and be able to secure lower-cost leasing arrangements

Master Lease Program

About the Program

The establishment and maintenance of the State Treasurer's Office Master Lease Program is authorized through Section 1-1-1020, SC Code of Laws.

The State Treasurer's Office Master Lease Program provides cost-effective financing arrangements to South Carolina's state agencies, colleges and universities for the purpose of acquiring equipment needed to effectively improve and execute services on behalf of the State. The Program provides accepted applicants with financial assistance in obtaining:

- Office equipment;
- Telecommunications equipment;
- Energy conservation equipment;
- Medical equipment;
- Data processing equipment; and
- Related software

Since 2017, the State Treasurer's Office has facilitated **more than \$122 million** in master lease contracts benefiting 11 public agencies and institutions.

[Learn how MUSC secured affordable financing through the program.](#)



Source: [South Carolina Office of the State Treasurer, Master Lease Program](#)




Certificates of Participation (COPs)

Overview

- ❑ Shares of pooled leases are sold to multiple investors.
- ❑ Shares can be bought and sold on the financial markets, reducing the cost in exchange for investor flexibility to hold or offload.
- ❑ Up-front costs are higher than typical leases, more akin to bond sales, requiring the involvement of the same financial professionals.
- ❑ COPs are typically used for larger issuances, either for single larger projects or for pooled projects (e.g., WA state program).
- ❑ Historically they have not been considered debt, so have not required voter approval.
- ❑ Accounting standards now classify them as debt, but voter requirements have not necessarily caught up.

Example: WA State



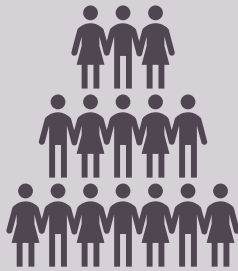
Lease/Purchase Structure – Certificates of Participation

- The Agency enters into a financing contract (lease) with the Office of the State Treasurer (OST) via a nominal lessor (Washington Finance Officers Association – WFOA)
- OST pools the various lease agreements across all agencies, and packages them as a security called a Certificate of Participation (COP)
 - COP's are similar to municipal bonds in that they are structured with regular principal and interest payments and sold to investors
 - Investors that purchase the COP are guaranteed an income stream from the lease payments to be made by the agencies for the life of the loan
- After the individual lease expires, ownership of the financed piece of property is retained by the agency

Source: [Washington Office of the State Treasurer, "The State Lease/Purchase \(COP\) Program"](#)



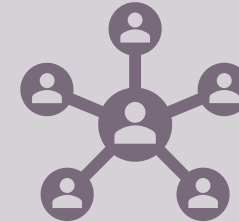
Bonds



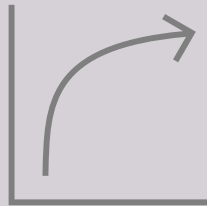
Debt issued to investors with a promise to repay according to agreed-upon schedule



Can be traded on the financial markets



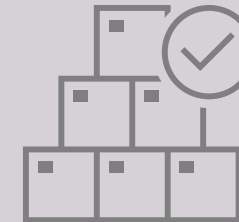
More complex and higher cost than alternatives, requiring bond counsel, underwriters, etc.



For large enough transactions, higher up-front cost can be outweighed by lower payments over time



General obligation bonds backed by all revenue sources
Revenue bonds backed by specific revenue source



Individual projects from multiple agencies can sometimes be rolled up into a single overall bond issuance



Bond Advantages

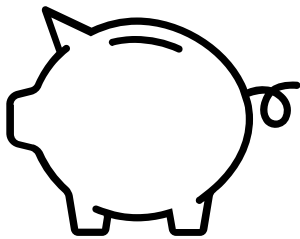
✓ LOW-COST, SCALABLE CAPITAL

The sale of bonds can generate significant capital at low rates to enable capital-intensive projects or portfolios of smaller projects.

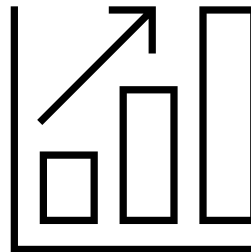
✓ LONGER TERM LENGTHS

Issuers can set the repayment period as appropriate, enabling them to support a wide range of projects, including those with longer payback periods.

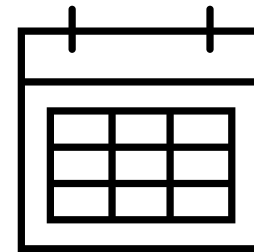
Source (modified): [U.S. Department of Energy. Better Buildings Solution Center](#)



Low-Cost Capital



Scalable



Longer Terms Available



Bond Disadvantages

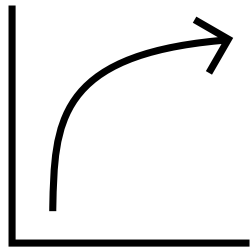
✗ ADDED TRANSACTION COSTS

The issuance process requires engaging and coordination with many parties, including credit underwriting and bond reviewers, a burden that can impact the economic impact of smaller bond sales. Establishing a reusable framework can decrease this burden on subsequent bonds.

✗ VOTER APPROVAL REQUIREMENTS

Bonds that are backed by taxing authority of the issuer must be approved by a vote of the public.

Source (modified): [U.S. Department of Energy, Better Buildings Solution Center](#)



Transaction Costs
(up-front issuance costs)



Voter Approval
Requirements



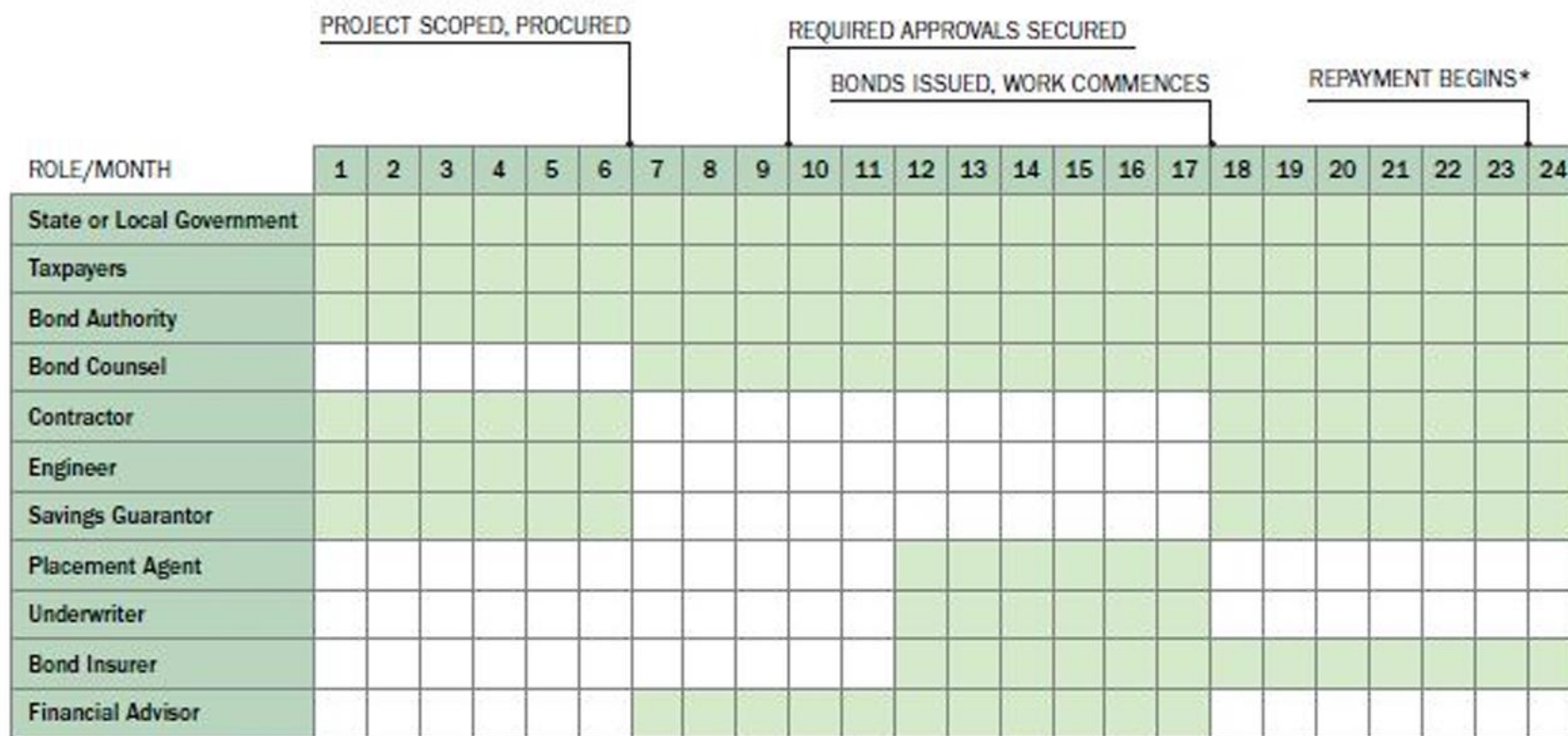
Municipal Bonds

- **“Municipal Bond”**: Bond issued by a public agency. Although called “municipal,” includes state agencies, regional governments, and other public institutions.
- Interest received is typically exempt from federal, state, and local taxes, which lowers the interest rate that agencies must pay to investors.

Roles	Responsibilities
State or Local Government	Identify financing need; pass resolution approving issuance (if required); procure needed services (contractor, engineer, bond counsel, municipal advisor, etc.).
Taxpayers	Vote whether to approve issuance (if required); pay taxes that support government’s ability to issue (and pay interest on) bonds (pertains only to GO bonds).
Ultimate Obligor	Repay principal and interest on the bonds. <i>Note:</i> The ultimate obligor may be the bond issuer or the conduit beneficiary.
Bond Authority	Facilitate issuance; aggregate bonds for pooled issuances; provide technical assistance.
Bond Counsel	Advise on legal and tax issues related to issuance; provide opinion as to interest tax exemption.
Contractor	Complete the financed construction or improvements.
Engineer	Assist in planning work to be financed and overseeing contractor’s progress; provide opinion as to satisfactory completion; may certify energy savings/guarantee, if applicable.
Savings Guarantor	Pay the guarantee beneficiary if actual savings are less than guaranteed.
Energy Savings Guarantee Provider	Make payments in the event that some or all of a specified level of savings is not achieved (energy performance guarantee). <i>Note:</i> This is only if the bond is being used to finance improvements that are expected to reduce energy.
Municipal Advisor (SEC-Registered Financial Advisor)	Advise the issuer as to the various options, structures, and partners; assist in reviewing documents, negotiating terms, and making decisions.



Typical Bond Timeline



*Assumes a typical semi-annual bond repayment schedule. ■ Cells filled in light green indicate an active role for actor during that period.

Source: [U.S. Department of Energy, "Leveraging Bond Financing to Support Energy Efficiency and Renewable Energy"](#)

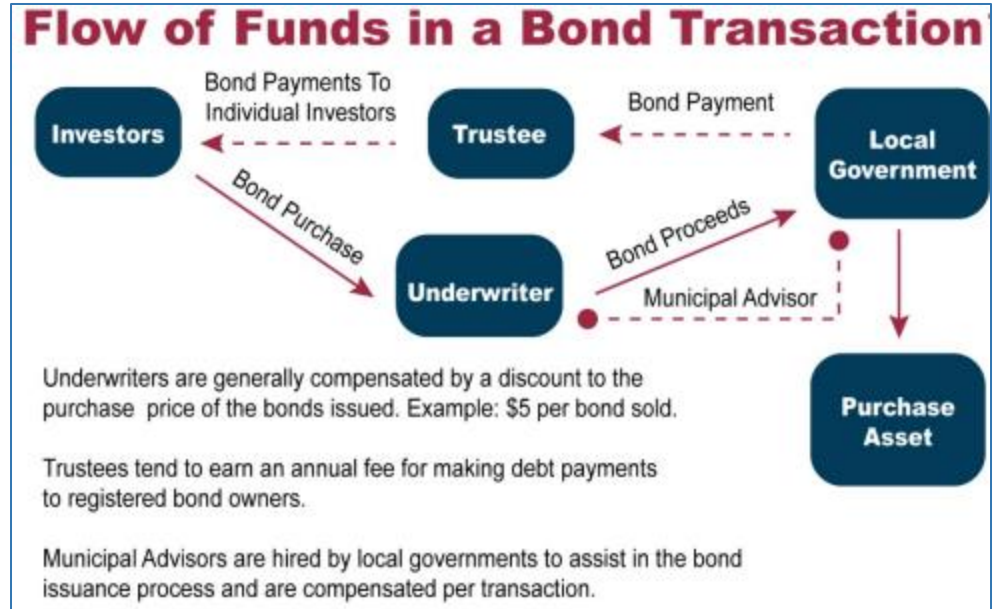


General Obligation Bonds

Key Points

- ❑ Backed by tax revenue obligation
- ❑ May require voter approval
- ❑ Low borrowing cost
- ❑ High transaction costs
- ❑ May be issued by a state or local agency on a regular schedule. Agencies may have a regular process and timeline for submitting proposed projects to be included.

How It Works



Source: [Tennessee Comptroller of the Currency, "Tennessee Debt Manual for Local Governments"](#)



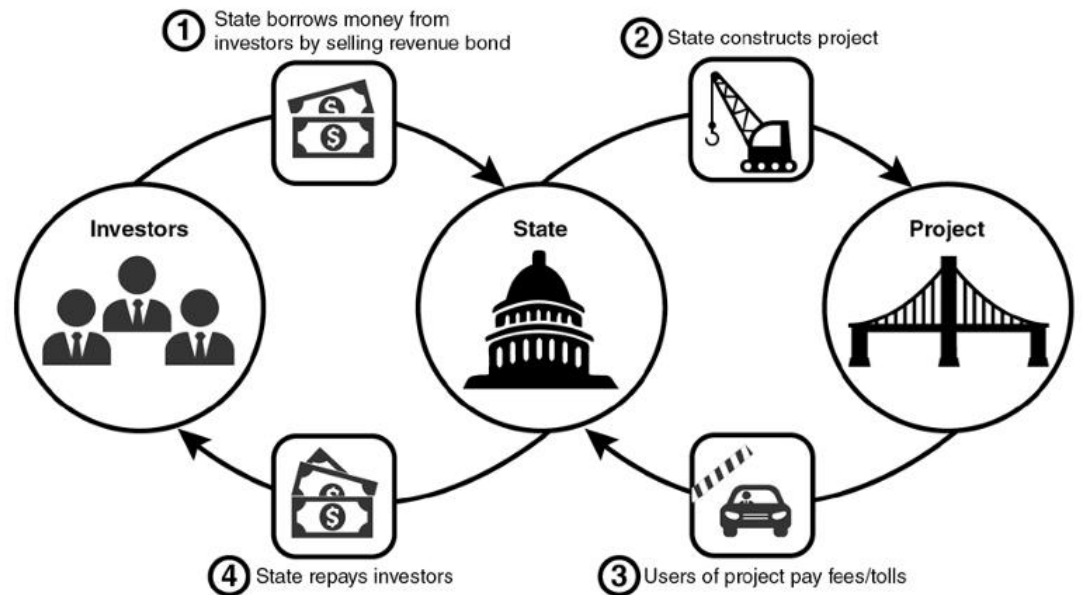
Revenue Bonds

Key Points

- ❑ Backed by designated revenue stream
- ❑ Generally, no voter approval required
- ❑ Higher borrowing cost (yield) than a GO bond
- ❑ Requires defining revenue stream, which can be complex in the context of energy efficiency (where “revenues” come from savings)

How It Works







How a State Revenue Bond Works



Source: [California Legislative Analyst's Office](#)



Traditional Product Comparison By Product Features

		Loans	Tax Exempt Leases	Bonds
Low Upfront Transaction Costs		✓	✓	✗
Low Cost of Capital		✗	~	✓
Longer Term Lengths		✗	✗	✓
Financing Covers 100% of Project Costs		✗	✓	~
Scalable to Building Portfolios		✓	✓	✓
Generally Available		✓	✓	✓

✓ Feature is inherent to this product.

~ Feature may or may not be part of a particular offering of this product type.

✗ Feature is not a part of this product and may be a barrier to its use.



Traditional Product Comparison

Barriers Arising from Classification as “Debt”

Barrier	Loans	Leases	Bonds	Notes (See Module 2 for further explanation of each barrier)
Competition for Capital (Agency Decision-Making)	X	X	X	<u>Bonds and Loans</u> : Must be prioritized internally within capital budget. <u>Leases</u> : Must now be accounted for as long-term debt in most cases, under new accounting standards, so must also be prioritized within capital budget.
Voter Approval Requirements (Public Policy)	~	~	X	<u>Bonds</u> : GO bonds frequently require voter approval. <u>Leases</u> : Generally not required. <u>Loans</u> : Generally not required.
Cumulative Debt Caps (Public Policy)	~	~	X	<u>Bonds</u> : Generally count against public debt caps. <u>Leases</u> : Depends on policy language. May not count against debt caps if “non-appropriation” provisions . <u>Loans</u> : Depends on policy language.
Debt Covenants (Pre-Existing Financing Agreements)	~	~	~	Depends on language of any pre-existing financing agreements.
Investor Tolerance of Balance Sheet Debt Levels (GAAP/GASB)	X	X	X	<u>Bonds and Loans</u> : Must be disclosed as balance-sheet debt. <u>Leases</u> : Must now be disclosed as balance-sheet debt in most cases, under new accounting standards. Previously could be treated as part of operating budget, if agreement included “non-appropriation” clause.

X Barrier is inherent to product. ~ Product may or may not face this barrier, depending on circumstances.



Additional Resources

- [Current Practices in Efficiency Financing: An Overview for State and Local Governments](#)
- [Better Buildings Financing Navigator](#)
- [Leveraging Bond Financing to Support Energy Efficiency and Renewable Energy Goals: A Resource Summary for State and Local Governments](#) (report)
- [Bond Financing for Energy Efficiency and Renewable Energy: Overview for State and Local Leaders](#) (presentation)



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Appendix: Bond Financing Concepts and Terminology



Bond Concepts and Terminology: Yield

- YIELD TO MATURITY: The implied interest rate for a bond if all scheduled payments are made through the end or “maturity” date of a bond agreement. “Implied” because it is calculated from the projected payment stream, (but unlike non-muni leases, where “implied” rates are not stated in the agreement, yield is typically stated in the offering).
- YIELD TO CALL: The implied interest rate if a bond is paid off at some point prior to its maturity.
- BOND PRICE: The actual amount an investor is willing to pay for an individual bond, given its projected future payments. Investors may be willing to pay a “premium” if the projected interest income compares favorably to alternative investment options or may expect a “discount” if alternative investments become relatively more attractive.
- TAX-EXEMPT INTEREST: As with municipal leases, municipal bonds are tax-exempt.



Bond Concepts and Terminology: Term Lengths

- ❑ RANGE: Typically in the range of 20 – 30 years but can be as short as one year. Some municipal bond issuances are comprised of “serial” bonds, with groups of bonds maturing at different times, typically each year.
- ❑ CALL DATE: Bond terms are defined with respect to their expected end date, known as their maturity date. Most municipal bonds are “callable,” however, meaning they can be paid off early, generally if prevailing interest rates drop.
- ❑ AFFORDABILITY: The longer term typical of municipal bonds, as compared with loans and leases, can help make payments more affordable when compared with savings.



Bond Concepts and Terminology: Repayments

- PAR VALUE: The principal value of a single bond, usually set at \$5,000. The total par value of all bonds in a single issuance is analogous to the loan amount borrowed from a lender.
- COUPON RATE: The rate used to calculate the required annual payment on each individual bond. Payment amounts on individual bonds are equal to the par value times the coupon rate.
- COUPON: The term used for the annual payment amount of each individual bond. Bonds often pay semi-annually, at an amount equal to half the coupon.



Bond Concepts and Terminology: Security

- ❑ GENERAL OBLIGATION: Bonds backed by the government's pledge to use its taxing authority to raise sufficient funds to repay bondholders. Can be issued at lower rates but may be capped by government debt restrictions.
- ❑ REVENUE BOND: Backed by specific revenue sources, such as utility revenues. In some cases, energy efficiency revenue bonds have been issued and backed by savings generated from energy efficiency project.
- ❑ RESERVE FUND: Money set aside to protect investors against defaults. Maintenance of a reserve fund and specific requirements depend on provisions of bond offering.



Rates

Loans

“Interest Rate”

- **APR:** Lending costs may also include one-time up-front fees, which can vary by lender. The “**annual percentage rate**” (**APR**) accounts for these fees and allows for comparisons across lenders.
- **COST OF CAPITAL:** Interest rates vary depending on the rate of return needed. Public/ratepayer funds can be lent at lower rates than private capital but are typically in shorter supply.
- **INTEREST-RATE BUY-DOWNS:** Some programs “**buy down**” private capital rates by paying part or all of the interest income using program funds.
- **CREDIT ENHANCEMENT:** Programs may also lower private capital rates by reducing credit risk through “**credit enhancement**” strategies (e.g., by establishing a “**loan loss reserve fund**” to make lenders whole on unpaid loans).

Leases

“Interest Rate”

- **TAX-EXEMPT INTEREST:** The interest income that lessors receive on most public-sector leases is not subject to taxes. Since the investors pocket more of the income, they can charge lower rates to lessees. These arrangements are called “**tax-exempt leases**” or “**tax-exempt lease purchase agreements**” (**TELPs**), because lessees agree to purchase the leased items at the end of the lease term. They are also called “**municipal leases**,” though the term applies to state and regional government leases, as well.
- **IMPLIED INTEREST RATES:** Interest rates on municipal leases are generally advertised explicitly, to help calculate the benefit of the tax exemption on interest income. Interest rates on other leases are typically “**implied**,” with agreements spelling out term lengths and payment amounts instead. These amounts can be used to calculate the underlying interest rates.

Bonds

“Yield to Maturity” (YTM)

- **YIELD TO MATURITY:** The implied interest rate if all scheduled payments are made through the end or “**maturity**” date of a bond agreement. “Implied” because it is calculated from the projected payment stream, but unlike non-muni leases, it is typically advertised.
- **YIELD TO CALL:** The implied interest rate if a bond is paid off at some point prior to its maturity.
- **BOND PRICE:** The actual amount an investor is willing to pay for an individual bond, given its projected future payments. Investors may be willing to pay a “**premium**” if the projected interest income compares favorably to alternative investment options or may expect a “**discount**” if alternative investments become relatively more attractive.
- **TAX-EXEMPT INTEREST:** As with municipal leases, municipal bonds are tax-exempt.



Term Lengths

Loans

“Term”

- **RANGE:** Can vary significantly, but overall are typically in the range of 5 – 15 years.

Significance:

- **REPAYMENTS:** Longer loan terms reduce periodic repayment amounts, helping required payments compare more favorably to projected savings.
- **INTEREST RATES:** Longer terms typically come with higher interest rates, due to the increased risk of nonpayment over a longer period of time.
- **TOTAL FINANCING COSTS:** Total financing costs are higher with longer terms, given debt accrues interest over a longer period of time. However, each individual payment is lower.

Leases

“Lease Period”

- **RANGE:** Typically in the range of 5 – 7 years, with variation.

Significance:

- **PROJECT ECONOMICS:** Given the relatively shorter term lengths typical of lease periods, payments may exceed savings during the term of the agreement. Some programs, however (e.g., Washington State) match the lease period to the life of the equipment.
- **CLASSIFICATION:** Any lease with a loan term of over one year, or with an expected purchase by the end of the lease term (as in the case with tax-exempt municipal leases), must be recorded as a capital lease, and therefore treated as debt.

Bonds

“Maturity”

- **RANGE:** Typically in the range of 20 – 30 years but can be as short as one year. Some municipal bond issuances are comprised of “serial” bonds, with groups of bonds maturing at different times, typically each year.

Significance:

- **CALL DATE:** Bond terms are defined with respect to their expected end date, known as their maturity date. Most municipal bonds are “**callable**,” however, meaning they can be paid off early, generally if prevailing interest rates drop.
- **AFFORDABILITY:** The longer term typical of municipal bonds, as compared with loans and leases, can help make payments more affordable when compared with savings.



Repayments

Loans

“Loan Payment”

- **REPAYMENTS:** Longer loan terms reduce periodic repayment amounts, helping required payments compare more favorably to projected savings.
- **INTEREST RATES:** Longer terms typically come with higher interest rates, due to the increased risk of nonpayment over a longer period of time.
- **TOTAL FINANCING COSTS:** Total financing costs are higher with longer terms, given debt accrues interest over a longer period of time. However, each individual payment is lower.

Leases

“Lease Payment”

- **OPERATING LEASES:** Under previous accounting rules, operating leases were treated as analogous to “renting” equipment, whereas capital leases were treated as “owning” (or leasing to own). Operating leases were therefore generally paid for out of annual operating budgets and were not required to be accounted for as long-term debt.
- **CAPITAL LEASES:** Under changes in accounting rules, most leases are now classified as capital leases unless there is a reasonable expectation that the equipment will be returned after the repayment period.
- **BUDGETING:** Which budget pool is used to repay a lease does not determine how it should be classified from an accounting standpoint.

Bonds

“Coupon”

- **PAR VALUE:** The principal value of a single bond, usually set at \$5,000. The total par value of all bonds in a single issuance is analogous to the loan amount borrowed from a lender.
- **COUPON RATE:** The rate used to calculate the required annual payment on each individual bond. Payment amounts on individual bonds are equal to the par value times the coupon rate.
- **COUPON:** The term used for the annual payment amount of each individual bond. Bonds often pay semi-annually, at an amount equal to half the coupon.



Security

Loans

“Lien”

- **LIEN**: The documented legal right to collect and sell specific property in the case of borrower nonpayment of loan obligations or other violations of loan agreement terms.
- **COLLATERAL**: The property specified in the loan agreement on which the lender holds a lien. May be in the form of real or personal property.
- **SECURED/UNSECURED**: Loans based on agreements containing liens against collateral are classified as “secured” loans, while loans based on agreements containing no such provisions are classified as “unsecured.” Secured loans typically carry lower interest rates than unsecured loans.

Leases

“Security Interest”

- **SECURITY INTEREST**: The lessee holds title to the assets subject to the leasing agreement, but the lessor maintains a right to repossess and sell the assets if the lessee violates the terms of the agreement. Analogous to a secured loan. This type of arrangement generally characterizes municipal leases.
- **TRUE LEASE**: The lessor never transfers title to the assets to the lessee. As a result, if the lessee goes bankrupt, the assets are not considered part of the bankruptcy estate, because they still belong to the lessor. Therefore, the lessor can avoid having to go through a complex, expensive bankruptcy process to repossess the assets. Most municipal leases are not structured this way, particularly for acquisition of long-term assets such as most energy efficient equipment

Bonds

“Obligation”

- **OBLIGATION**: Municipal bonds are not generally secured by specific assets. Instead, they come with a government pledge to investors, called an “obligation.”
- **GENERAL OBLIGATION**: Bonds backed by the government’s pledge to use its taxing authority to raise sufficient funds to repay bondholders. Can be issued at lower rates but may be capped by government debt restrictions.
- **REVENUE BOND**: Backed by specific revenue sources, typically related to the project, such as ongoing user fees. In some cases, energy efficiency revenue bonds have been issued and backed by savings generated from energy efficiency project.

