



# Qualified Energy Conservation Bonds

Workshop and Overview of Tennessee Program  
and Best Practices

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**Disclaimer: This presentation is intended to serve as a general introduction to qualified energy conservation bonds to finance energy projects. Nothing contained in this presentation should be construed or relied upon as legal or financial advice.**



“You have no control  
over how much you pay for energy.

The only thing you can control  
is how much energy you use.”

-Mark Samuels, Maintenance Director  
Williamson County School District



## Overview of Tennessee Program and Best Practices

- What are Qualified Energy Conservation Bonds (QECCB)?
- How can they be used to finance energy conservation projects and meet sustainability goals?
- What opportunities exist in Tennessee under the Tennessee QECCB program?



## Bond Finance Basics: What is a Bond?

**Bonds** are debt instruments issued by a government or business to raise money, similar to loan or IOU

- **Lender** is holder of the bond (creditor)
- **Issuer** of the bond is the borrower (debtor)
- **Coupon** is the interest paid on the principal
- **Principal** is the amount that interest is charged against (the amount “loaned”)
- **Maturity** is the date by which the nominal amount must be repaid (also referred to as the “tenor”)



## What are Qualified Energy Conservation Bonds (QECCB)?

- **Low interest bonds that can be issued by states, territories, large local governments, and tribal governments to finance renewable energy and energy efficiency projects**
- Attractive borrowing rates: 1%-5% effective interest rate  
70% of interest rate is subsidized  
Issuer typically gets 3%- 4% subsidy from Treasury, lowering borrowing costs  
15 to 22-year term
- Created in 2008; greatly expanded by Recovery Act in 2009
- Total national allocation is \$3.2 billion; Tennessee allocation is **\$64,676,000**
- Issued for qualified energy efficiency, renewable energy, and energy conservation capital expenditures; **qualified projects are broadly defined**



## QECB Qualified Projects

Capital expenditures incurred for purposes of:

- Reducing energy consumption in publicly-owned buildings by at least 20%
- Implementing green community programs (including the use of loans, grants, or other repayment mechanisms to implement such programs)
- Rural development involving electricity produced from renewable energy resources
- Energy-related research facilities and research grants
- Mass commuting facilities
- Demonstration projects (for energy-related processes)

**In Tennessee, bonds can only be issued if physical asset development or improvement is critical component of project**



## QECCB Criteria

1. 100% of the available project proceeds from issuance must be used for one or more qualified conservation purposes, used **within 3 years of issuance**
2. Bond is issued by a state or local government, and
3. Issuer designates such bond for the eligible purposes

### **Also:**

Up to 30% of Tennessee's QECCB allocation may be used for private activity

Federal Davis-Bacon (prevailing) wage and benefit requirements apply to projects funded with QECCBs

Issued as revenue bonds or general obligation bonds



## Davis-Bacon, Reporting: An Overview

Any project financed with proceeds of a QECB is subject to the Federal Davis-Bacon Act prevailing wage and benefit laws, including any private activity project financed with proceeds of a QECB

Prevailing wage requirements do not apply to issuer employees but do apply to contracts entered into for construction, repair, or alteration

Other ARRA requirements, such as Buy American, monitoring and audits, may apply

Issuers of QECBs must file a Form 8038 with the IRS upon issuance of the QECBs

Reporting on project impact to OEP will be required



## How QECBs Work: An Overview

U.S. Treasury allocates QECB bond volume to states

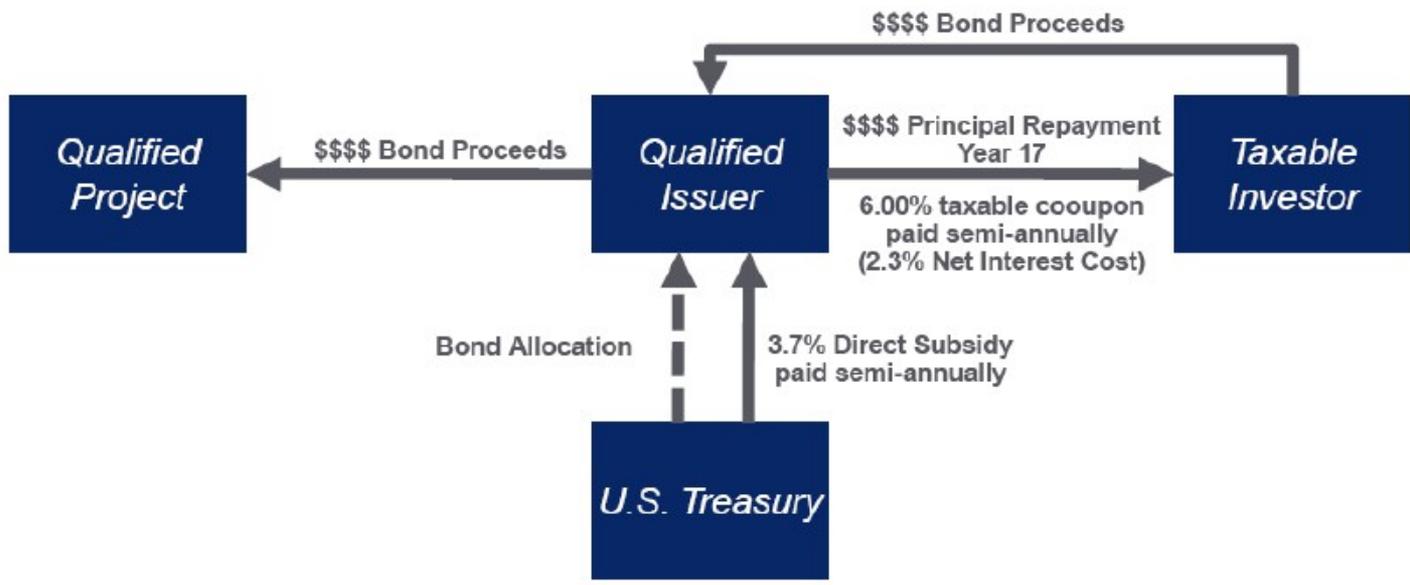
States allocate QECB issuance capacity to Qualified Issuers, who then sell taxable QECBs to investors

Proceeds from bond issuance are used to fund a Qualified Energy Conservation Project

Issuer pays a taxable coupon semi-annually to the investor and repays principal at the end of term

U.S. Treasury pays issuer the lesser of the taxable coupon rate or 70% of the tax credit rate

# How QECBs Work: An Overview



From DOE QECB and CREB Finance Primer



# Tennessee Program: Large Local Jurisdictions Allocations

**June 2012** Large Local Jurisdictions (LLJs) in TN received a share of the \$64.7 million based on their percentage of the population

- Cities with populations of 100,000 or more
- Counties with populations of 100,000 or more, not including any cities within the county that are large local governments

15 entities in TN received allocations, totaling **\$35.9 million**.

Blount County, Chattanooga, Clarksville, Hamilton County, Knox County, Knoxville, Memphis, Metro Nashville, Rutherford County, Shelby County, Sullivan County, Sumner County, Washington County, Williamson County, Wilson County

“Allocation designees” may:

- Authorize an eligible public entity such as a Development Authority to issue QECBs
- Allocate all or a portion to an unrelated political subdivision within its jurisdiction (such as a city in a county – conduit issuer relationship)
- Reallocate to the State



# QECCBs in Action

## Best Practices

How do issuers determine which projects to pursue?  
What steps are taken to ensure success?

## Projects

What types of projects have QECCBs funded?  
Examples of how energy, and money, is being saved

## Next Steps

How can QECCBs be used in Tennessee?  
How can I learn whether QECCBs are a good fit for me?



## Best Practices: Difference-Making Project Criteria

- Project Feasibility
  - Viability of project, technology, budget, compliance
- Project Impact
  - Jobs, energy savings, return on investment, environmental benefits
- Project Strategy
  - Align with local sustainability strategy, support, part of vision
- Project Readiness
  - Timeframe in place for bond issuance, shovel-readiness



# Best Practices: Performance Based Contracting

**Performance-based contracting** - payment is conditional on achieving contractually specified energy savings

Uses energy and utility dollars saved to pay for the project costs

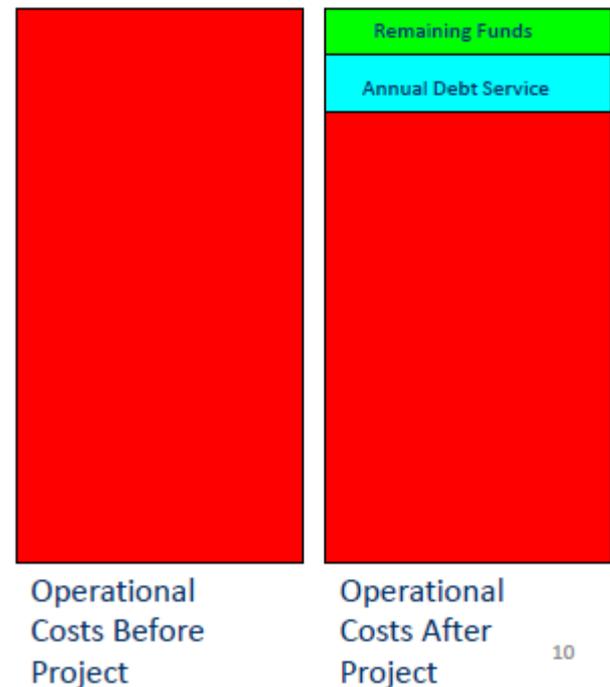
Also called Guaranteed Energy Savings  
Contracts with energy service companies (ESCOs)

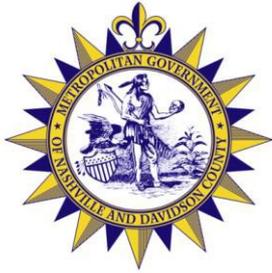
Contract for the evaluation, recommendation, or implementation of energy conservation measures

Payments made over time

Energy savings guaranteed to exceed costs

**A Budget Neutral Approach**





## QECCB Utilization: Examples in TN

### Nashville

\$6,440,000 allocation used on energy efficiency upgrades for downtown Arena, issued August 2012

- Category: reducing energy consumption in publicly-owned buildings by at least 20%
- Obtained certifications from construction engineers, anticipated savings approximately 30%
- Resolution adopted by Metro Council granting issuing authority, general obligation bonds
- Issued at 3.367% interest rate, interest paid semi-annually



## Bellingham, WA: Challenges and Opportunities

Population: 81,000

### **The Issues:**

Growing maintenance needs across the city; maintenance often reactive (short fixes, putting out fires)

Challenging properties: federal building, city hall, aquatic center



## Bellingham, WA: QECBs as a Part of Overall Energy Strategy

### **The Strategy:**

Consistent with efforts to implement the city's Municipal Facility Energy Conservation Strategy

Reduces long term operating costs, greenhouse gas emissions, essential capital maintenance replacement while stimulating local economy

Projects identified: lighting, HVAC, aquatic center renovations, controls of systems

Performance Contracting with ESCO; budget neutral



# Bellingham, WA: Financed Various Projects

|                                                                              |  |                    |
|------------------------------------------------------------------------------|--|--------------------|
| <b>QECB Bond (GO Taxable)</b>                                                |  | <b>\$6,500,000</b> |
| Interest & Debt Service                                                      |  | \$285,000          |
| Administration                                                               |  | \$100,000          |
| Facilities Repairs, Engineering                                              |  | \$3,570,000        |
| Machinery, Equipment                                                         |  | \$2,545,000        |
|                                                                              |  |                    |
| 20% savings for 22 City-owned assets; net interest rate: 1.68%; 15-year term |  |                    |



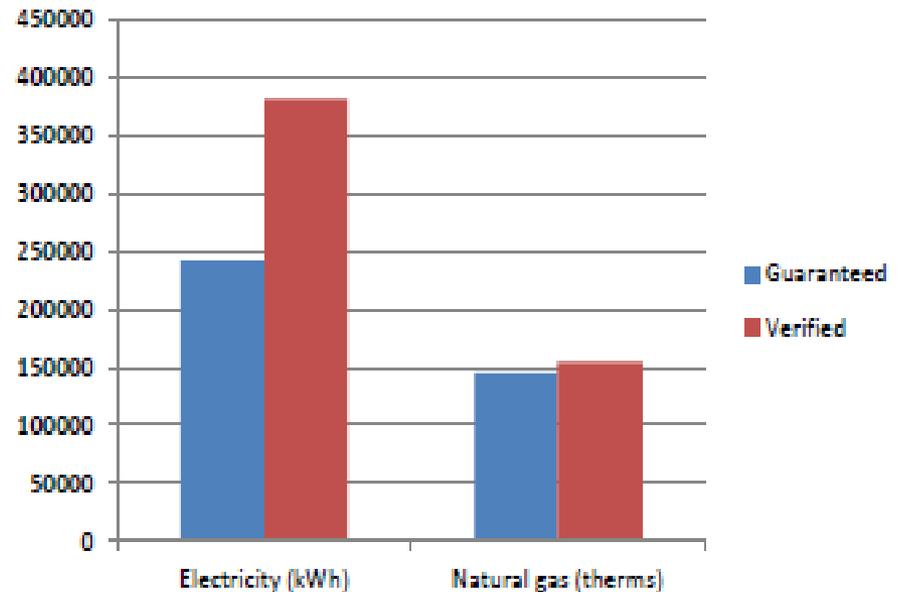
# Bellingham, WA: Results Exceed Expectations

Variety of measurement and Verification strategies used

Guaranteed energy savings of \$163,000

Trouble-shooting until performance achieved, improved comfort

## Energy Savings Are Exceeding Guarantee





## Next Steps:

### Utilization and Competitive Sub-Allocation

OEP requested that all 15 Large Local Jurisdictions determine usage of QECB allocation by June 30, 2013

Allocations not utilized by LLJs and reallocated to the State were combined with state government allocation

Total allocation will be available to all qualified local governments and public universities through a competitive sub-allocation process

OEP is currently evaluating the level of funding to be dedicated to the competitive round of sub-allocations; anticipated total is \$26,934,751



## **Next Steps (continued): Utilization and Competitive Sub-Allocation**

OEP will evaluate requests for QECB allocations through a competitive process

Information on how to apply is on our website

Competitive sub-allocation process will still require adherence to appropriate regulations and conditions of original allocation

End result: more places across TN saving money!



# Thank You

OEP Energy Hotline: 615-741-2994

TDEC OEP Website

<http://tn.gov/environment/section/energy>

