Tennessee Qualified Energy Conservation Bonds Information Session

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy


The Parker Ranch installation in Hawaii

Glenn Barnes & Michael Chasnow

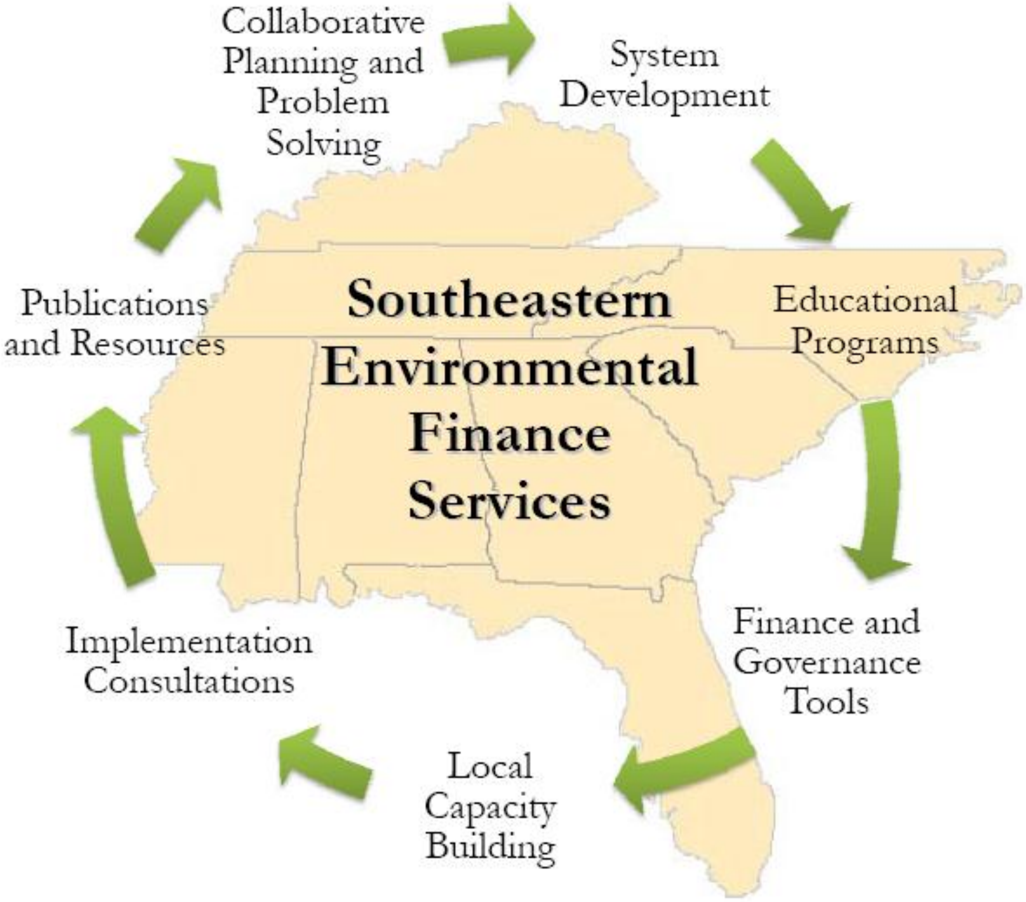
Environmental Finance Center

University of North Carolina at Chapel Hill

www.efc.unc.edu

August 16, 2012

Conference call and webcast



UNC ENVIRONMENTAL FINANCE CENTER

Dedicated to enhancing the ability of governments and organizations to provide environmental programs and services in fair, effective and financially sustainable ways

Session Agenda

- Background on QECBs
- Options for large local governments that have received bond allocations
- Understanding the bond and subsidy mechanisms
- Understanding qualified projects
- Examples of QECB issuances from around the country

QECB Background

- Low interest bonds for qualified energy projects
- Initially created by Congress in 2008; greatly expanded by ARRA in 2009
- Total national allocation is $3.2 billion; Tennessee allocation is $64,676,000

QECB Background

- 1%-5% effective interest rate for issuer
  - Issuer gets 3%-4% subsidy from Treasury
  - 15 to 22-year term
- Qualified projects are broadly defined

How the allocation to large local governments works

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- Large Local Governments in Tennessee receive a share of the $64.7 million based on their percentage of the Tennessee 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 Tennessee received allocations

Local Government Options

Local Govt Options: Issue

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- Large local governments may issue QECBs themselves for any of the eligible uses

Local Govt Options: Conduit issue

- Large Local Governments “may designate another unit of government, either State or local, to issue bonds from their formula allocation, providing the project financed is fully within the jurisdiction of the LLJ. For example, a county may request a State issuer, such as the TLDA, or an Economic Development Corporation as a conduit issuer, to issue a QECB on behalf of the county. The county may also choose to support a city’s project by allowing the city to issue from the county’s allocation, assuming the city’s project falls completely within the county’s jurisdiction.”

Source: http://www.tn.gov/ecd/CD_QECB.shtml

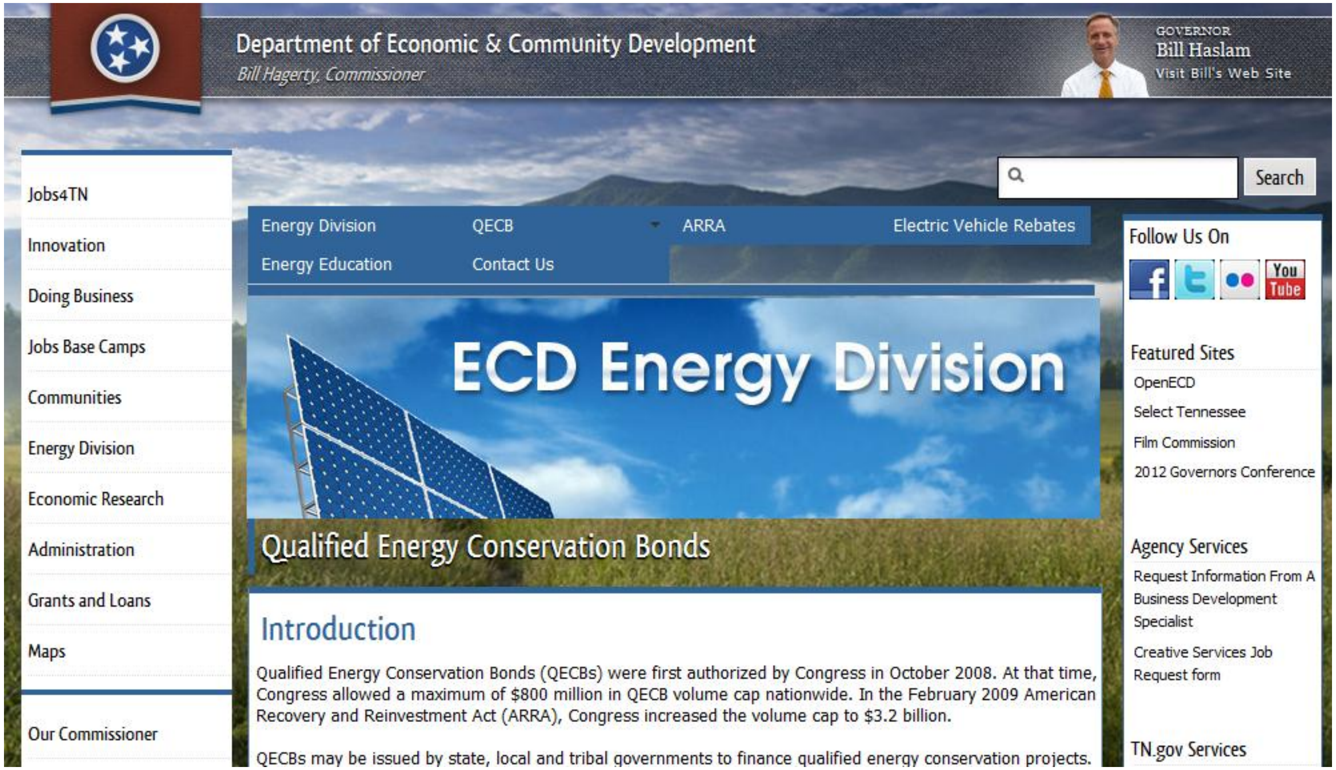
Local Govt Options: Return to state

- "If a LLJ is not able to or chooses not to use its formula allocation or to offer it to another issuer within its jurisdiction, its authority may be reallocated to the State for use in the State QECB program. Such authority may then be sub-allocated by ECD and TLDA. The State QECB program is currently under development."
- Possible reasons for reallocation:
  - Original allocation too small for a cost effective issuance
  - Difficulty of finding a tax credit investor
  - Insufficient debt capacity to issue bonds
  - Lack of qualified projects within the jurisdiction

Sources: http://www.tn.gov/ecd/CD_QECB.shtml and North Carolina QECB Guidance

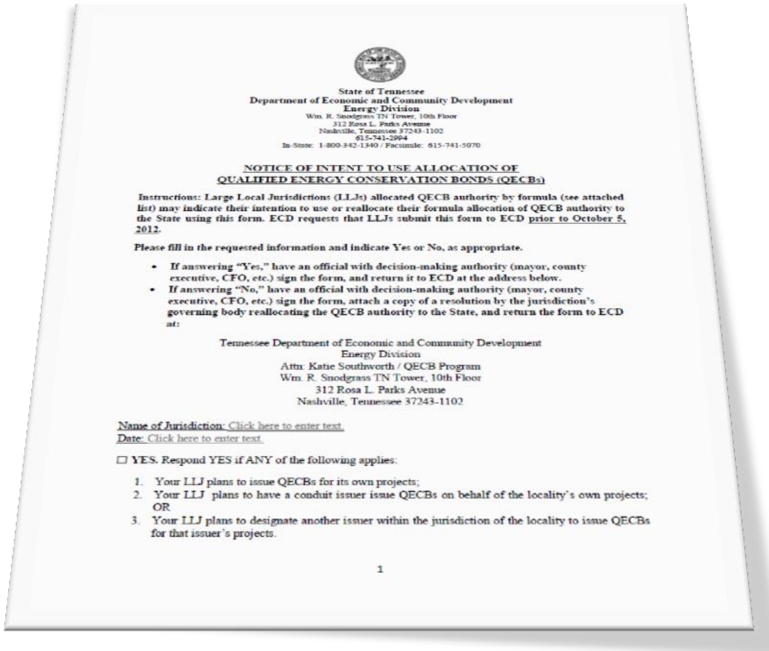
Tennessee Issuance Logistics

- Key state guidance: http://www.tn.gov/ecd/CD_QECB.shtml



Notice of Intent Form

- ✓ **ECD wants to know if you are going to use your allocation.**
- ✓ **October 5, 2012**
- ✓ No need to have a concrete or defined project at this time, just an intent to use at some point.
- ✓ Unused LLJ formula allocation amounts may be reallocated to the State at a later date it any remain.
- ✓ **Download form at: http://www.tn.gov/ecd/CD_QECB.shtml**



State of Tennessee
Department of Economic and Community Development
Energy Division
Wm. R. Snodgrass TN Tower, 10th Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243-1102
615-741-2994
In-State: 1-800-342-1340 / Facsimile: 615-741-5070

NOTICE OF INTENT TO USE ALLOCATION OF QUALIFIED ENERGY CONSERVATION BONDS (QECBs)

Instructions: Large Local Jurisdictions (LLJs) allocated QECB authority by formula (see attached list) may indicate their intention to use or reallocate their formula allocation of QECB authority to the State using this form. ECD requests that LLJs submit this form to ECD prior to October 5, 2012.

Please fill in the requested information and indicate Yes or No, as appropriate.

- **If answering "Yes," have an official with decision-making authority (mayor, county executive, CFO, etc.) sign the form, and return it to ECD at the address below.**
- **If answering "No," have an official with decision-making authority (mayor, county executive, CFO, etc.) sign the form, attach a copy of a resolution by the jurisdiction's governing body reallocating the QECB authority to the State, and return the form to ECD at:**

Tennessee Department of Economic and Community Development
Energy Division
Attn: Katie Southworth / QECB Program
Wm. R. Snodgrass TN Tower, 10th Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243-1102

Name of Jurisdiction: Click here to enter text.
Date: Click here to enter text.

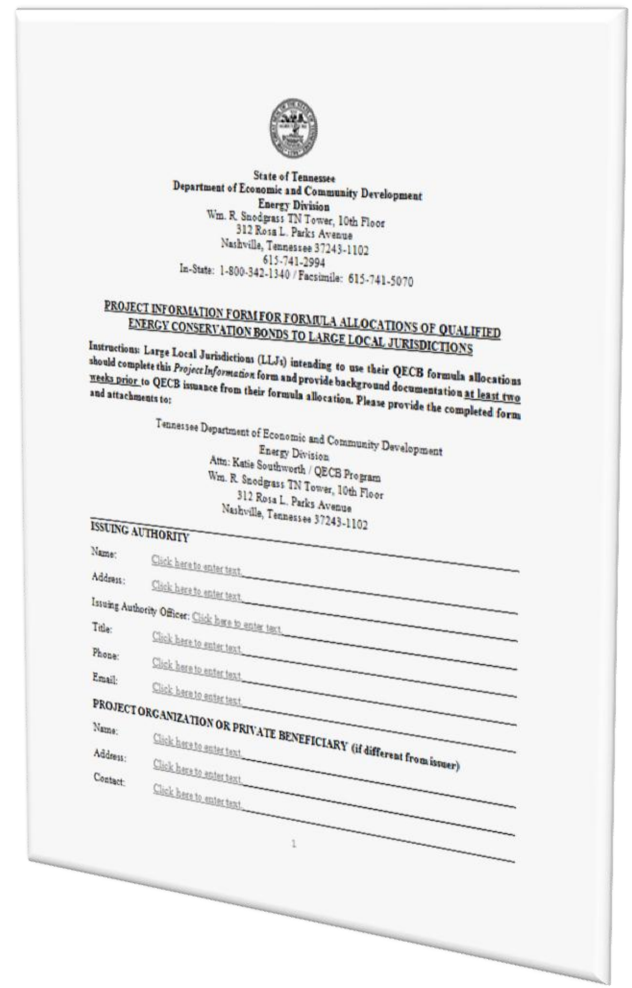
☐ YES. Respond YES if ANY of the following applies:

1. Your LLJ plans to issue QECBs for its own projects;
2. Your LLJ plans to have a conduit issuer issue QECBs on behalf of the locality's own projects; OR
3. Your LLJ plans to designate another issuer within the jurisdiction of the locality to issue QECBs for that issuer's projects.

1

Project Information Form

- ✓ **ECD wants to know what you are going to do with your allocation.**
- ✓ ECD monitors the 70/30 public-private use limitation using this form.
- ✓ Please send to ECD two weeks prior to issuance (earlier is ok, too!).
- ✓ If you have unused portion remaining, you may reallocate that to the state using this form (with LLJ resolution).
- ✓ If you have any questions, please don't hesitate to call ECD and TLDA for help!
- ✓ **Download form at: http://www.tn.gov/ecd/CD_QECB.shtml**



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PROJECT INFORMATION FORM FOR FORMULA ALLOCATIONS OF QUALIFIED ENERGY CONSERVATION BONDS TO LARGE LOCAL JURISDICTIONS

Instructions: Large Local Jurisdictions (LLJs) intending to use their QECB formula allocations should complete this *Project Information* form and provide background documentation at least two weeks prior to QECB issuance from their formula allocation. Please provide the completed form and attachments to:

Tennessee Department of Economic and Community Development
Energy Division
Attn: Katie Southworth / QECB Program
Wm. R. Snodgrass TN Tower, 10th Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243-1102

ISSUING AUTHORITY

Name: Click here to enter text.
Address: Click here to enter text.
Issuing Authority Officer: Click here to enter text.
Title: Click here to enter text.
Phone: Click here to enter text.
Email: Click here to enter text.

PROJECT ORGANIZATION OR PRIVATE BENEFICIARY (if different from issuer)

Name: Click here to enter text.
Address: Click here to enter text.
Contact: Click here to enter text.

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Do you intend to use your formula allocation?

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DEFINITELY

- Check YES on *Notice of Intent* form and send to ECD
- Provide *Project Information* form to ECD two weeks prior to issuance.

NO

- Obtain resolution from LLJ governing body reallocating formula allocation to the State.
- Check NO on *Notice of Intent* form
- Attach resolution to *Notice of Intent* form and send to ECD

MAYBE

- Check YES on *Notice of Intent* form and send to ECD.
- Provide *Project Information* form to ECD at least two weeks prior to issuance.
- Can reallocate at later date if LLJ subsequently decides not to use any portion.

Bond Mechanisms

- You as a local government issue a bond which is secured as other bonds are:
  - General Obligation (requires voter approval)
  - Revenue Bond
  - Collateral
  - Others
- QECB portion can be part of a larger bond issuance

Direct Subsidy or Tax Credit = Lower Interest for Borrowers

- “Tax Credit Bonds”—Federal Government lowers the interest rate of the bonds through either a tax credit or a direct cash payment from the US Treasury (more common method)

- Subsidy is the lesser of
  - The taxable rate of the bonds
  - 70% of the Qualified Tax Credit Rate (QTCR) as of the Bond Sale date

- QTCR and tenor of bond determined daily

Qualified Tax Credit Rate

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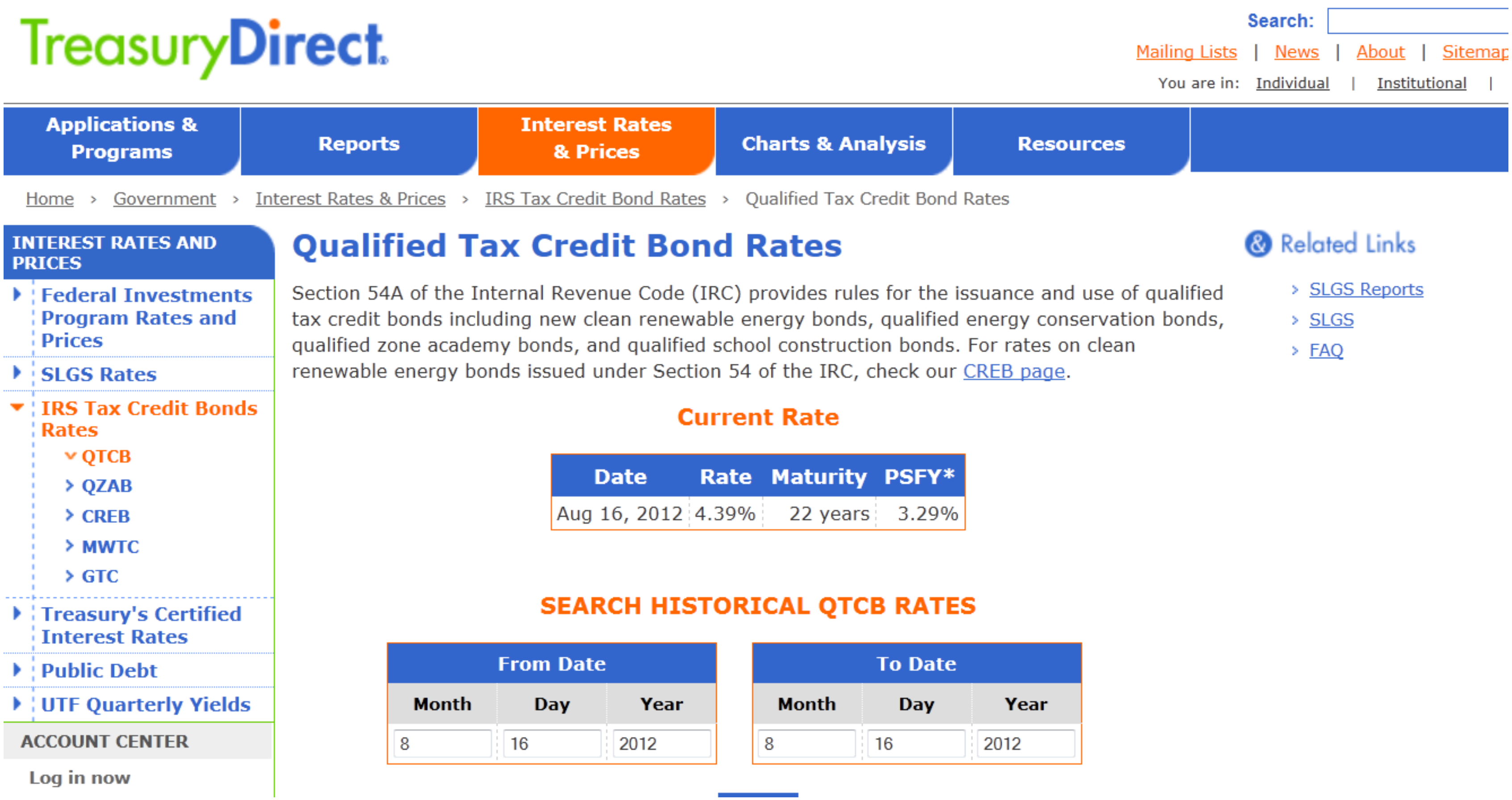
- https://www.treasurydirect.gov/GA-SL/SLGS/selectQTCDate.htm



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Qualified Tax Credit Bond Rates

Section 54A of the Internal Revenue Code (IRC) provides rules for the issuance and use of qualified tax credit bonds including new clean renewable energy bonds, qualified energy conservation bonds, qualified zone academy bonds, and qualified school construction bonds. For rates on clean renewable energy bonds issued under Section 54 of the IRC, check our CREB page.

Current Rate

Date	Rate	Maturity	PSFY*
Aug 16, 2012	4.39%	22 years	3.29%

SEARCH HISTORICAL QTCB RATES

From Date			To Date		
Month	Day	Year	Month	Day	Year
8	16	2012	8	16	2012

Related Links

- SLGS Reports
- SLGS
- FAQ

Qualified Projects

- Capital expenditures incurred for purposes of--
  (i) reducing energy consumption in publicly-owned buildings by at least 20 percent,
  (ii) implementing green community programs (including the use of loans, grants, or other repayment mechanisms to implement such programs),
  (iii) rural development involving the production of electricity from renewable energy resources

Source: 26 USC § 54D

Qualified Projects

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- Certain research facilities and research grants
- Mass commuting facilities
- Demonstration projects
- In Tennessee, bonds can only be issued if physical asset development or improvement is critical component of project

Who decides what constitutes a "qualified project?"

- IRS is the ultimate judge of whether or not an issuance is a "qualified project"
- As of yet, IRS is not pre-approving projects
- IRS can audit any QECB issuance for the term of the bond plus three years. Surviving this audit is the only way IRS will indicate if a project is a "qualified project"
- New important guidance, IRS Notice 2012-44: http://www.irs.gov/pub/irs-drop/n-12-44.pdf

20 Percent Test

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- The term “publicly-owned buildings” under §54D(f)(1)(A)(i) means a building or buildings that are owned by a State or local government

- For purposes of the 20 percent test, the issuer may measure the reduction in energy consumption using one of the following measurement units: (i) a single publicly-owned building, (ii) multiple publicly-owned buildings; (iii) one or more building system components of one or more publicly-owned buildings, or (iv) a combination of (i) or (ii) and (iii) above

Source: IRS Notice 2012-44

20 Percent Test

- A reasonable and consistently applied method must be used to measure energy savings attributable to capital expenditures with respect to a measurement unit for purposes of the 20 percent test

- For purposes of the 20 percent test, the issuer may consider actual and expected energy consumption in the measurement unit during any reasonable and consistent time periods of not less than one year (the measurement time periods), with one such period ending immediately before, and one such period beginning immediately after...

Source: IRS Notice 2012-44

Green Community Programs

- The purpose of a green community program is to promote one or more of the purposes of energy conservation, energy efficiency, or environmental conservation initiatives relating to energy consumption, broadly construed

- A green community program must: (i) involve property that is available for general public use... or (ii) involve a loan (or other repayment mechanism) or grant program that is broadly available to members of the general public, including individuals or businesses

Source: IRS Notice 2012-44

Private Activity

- No more than 30 percent of a Large Local Government's allocation
- Large Local Government must act as the conduit issuer of the bonds
- In the case of any private activity bond, the term "qualified conservation purposes" shall not include any expenditure that is not a capital expenditure
  - Source: IRS Notice 2009-29

Quick Aside: Energy Performance Contracts

- 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

QECB and the Recovery Act

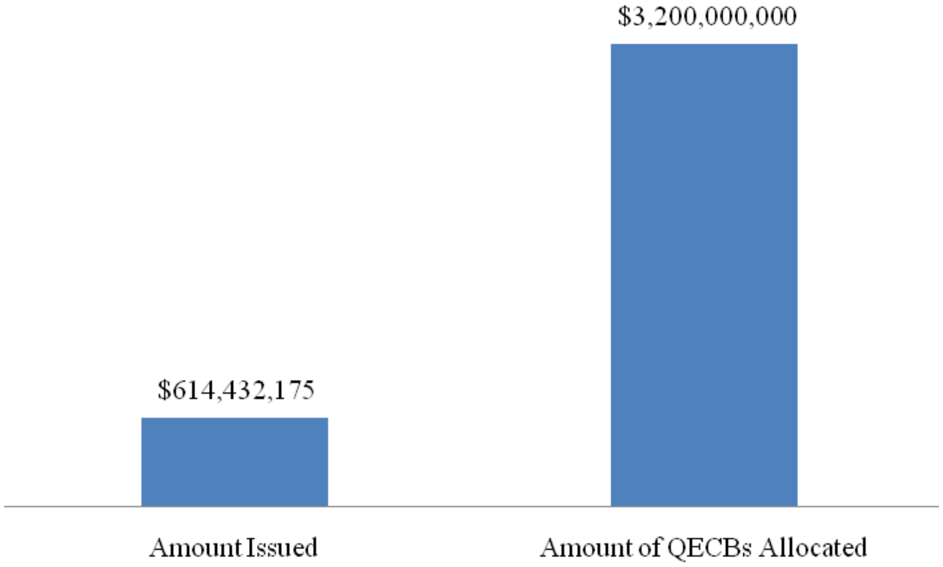
Recovery Act compliance areas to consider during the project design phase

- **Davis-Bacon and related acts**
- **Buy American**
- **Historic Preservation**
- **Monitoring and Audits**
- **Spending requirements- pay close attention here**
- **Bond Reporting**
- **National Environmental Policy Act (NEPA)- not automatically triggered**
- **1512 Jobs Reporting--- NOT REQUIRED!**
- **DOE Performance reporting, etc. – NOT REQUIRED!**

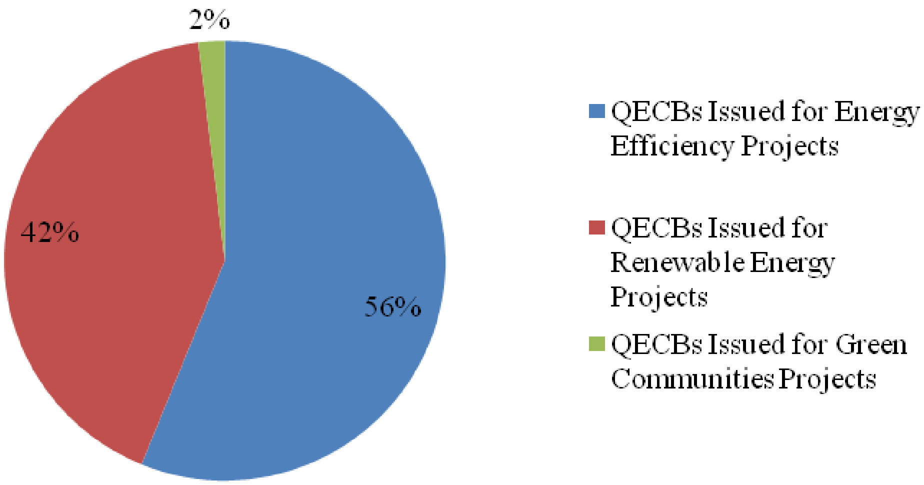
- **These projects are subject to audit by IG and US Treasury- US Treasury has not been approving projects beforehand, so keep that in mind.**

As of Jan. 2012, at least 99 projects and $610 million in QECBs across 23 states

QECBs Issues v. Allocated



Uses of QECBs Issued



Source: Energy Program Consortium Memorandum (2012)

Allegheny County, PA: Municipal Building Efficiency Improvements

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$9.3 million QECB for energy efficiency improvements to County Jail and Regional Center, annual positive cash flow of $1.56 million

- Upgrades included: Lighting & HVAC upgrades, new waste disposal system and domestic water pumping upgrades for the jail, and water upgrades & new high efficiency boilers for the regional center

Initial guaranteed energy savings agreement project (both buildings)	**$14,186,509**
EECBG (Energy Efficiency and Conservation Block Grant)	$4,848,602
QECB	$9,337,907
1st year annual guaranteed energy savings (Starting 2012)	$2,107,866
1st year payment (Starting 2012)	($523,994)
Measurement and verification service payment	($24,219)
1st year annual positive cash flow	**$1,559,653**

Manchester, NH: Improving Efficiency in Schools

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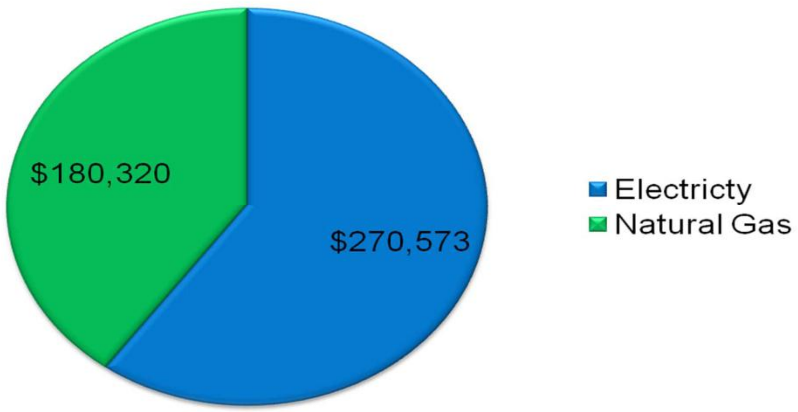
$1.95 million in total avoided energy costs (2009-2012) for Manchester School District with ARAMARK as performance contractor

Fund Source	Amount
ARRA – EECBG	$406,391
QECBs	**$1,130,000**
State Energy Loan Fund	$400,000
Utility rebate "bank"	$358,374
Public Service of New Hampshire Utility Smart-Start	$210,071
Total	**$2,551,673**

1st Year Cost Savings

$450,893



Source: Clean Air - Cool Planet (2012)

Street Lights in Surprise, AZ

Many local governments using QECBs for street light improvements including San Diego & Richmond CA, Las Vegas NV, & Surprise AZ

- Surprise, AZ is a city with about 117,000 people
- Issued a 15-year QECB bond of $723,803 in 2012 with a retirement date of July, 2027
- Principally for replacing street and baseball field lights
- Energy savings expected to more than cover planned Principal & Interest payments (which average ~$50,000)

Source: Surprise, AZ 2013 Recommended Budget
http://www.surpriseaz.gov/index.aspx?NID=223

Foothills Park & Rec Dept, CO

ESCO McKinstry guaranteed 25% annual dollar savings on energy & water ($280,000), higher than bond payments

- Located in Littleton, CO, and received $1 million QECB allocation from State
- Bond issuance cost ~3% with Dept. of Treasury subsidy, max payment of $278,000 per year
- Energy efficiency HVACs, lighting, toilets, and ice machines for hockey arena (among other improvements)
- Also, 100kw Solar PV system on the EDGE (Ice rink/arena)

Source: Foothiils Board Meeting, March 2010 (http://www.ifoothills.org/page_includes/board/2010/Minutes_03_09_2010.pdf)

Image: Denver Post.com

Wastewater Treatment in Deerfield, IL

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Energy is one of the largest controllable expenses of water and wastewater treatment

- Deerfield, IL has a population of 18,225 and an MHI of about $107,000
- Issued an 18-year QECB bond of $12.5 million with an effective interest rate of 1.12% (AAA bond rating)
  - General Obligation bond—no voter approval required in IL
- Funded equipment replacement that is expected to realize a 21-22 percent energy savings
- Part of a larger bond issuance

Yolo County, CA

1 MW solar photovoltaic (PV) project to supply power to both a jail and juvenile center

- Finance was a mix of new CREBs, QECBs, a California Energy Commission (CEC) loan, a Pacific Gas and Electric (PG&E) rebate, and a Tax Exempt Lease Program (TELP) loan
- 3.9 percent interest rate with a 15 year tenor for QECBs
- Yolo is anticipating that it will have a net positive cash flow of $100,000 per year starting in year 1 and $600,000 per year starting in year 16 in utility expenditures

Image: NREL

Source: NREL (https://financere.nrel.gov/finance/content/first-known-use-qecbs-will-save-yolo-county-least-87-million-over-next-25-years)

Green Community Example: Saint Louis County

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St. Louis uses QECBs to fund residential energy efficiency loan program, with goal of retrofitting 1400+ homes across several years

Saint Louis County's QECB Terms[9]	
Issuance Size	$10,305,000[10]
Issuance Date	May 18, 2011
Bond Security	County annual appropriation pledge with internal designation of loan proceeds as source of repayment obligation[11]
Bond Rating	AA+/Aa2[12]
Effective QECB Interest Rate	0.7%[13]
Maturity Schedule	Serial bonds[14] with final maturity of 15 years and bonds maturing annually starting in 2013

Saint Louis County SAVES Residential Loan Terms & Underwriting Standards	
Loan Amounts	$2,500-$15,000
Loan Terms	Up to 10 years
Interest Rate	3.50%
Eligible Borrowers	Owner-occupied single-family homes
Eligible Measures	Energy saving improvements*
Minimum FICO Score	660
Maximum Debt-to-Income Ratio (DTI)	45 percent

Source: Berkeley Labs QECB Case Study, http://eetd.lbl.gov/ea/emp/reports/ee-policybrief_062011.pdf

Private Activity QECB: Lawrence, KS Dam Project

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5 total private activity bonds to this point, with three in Massachusetts, for renewable generation projects including the Lawrence dam project

The Bowersock Mills & Power Company (2011)

Desc ription	Terms
Project	Financing of the 4.70 MW expansion of the electrical generating capacity of the existing dam via the construction of a new powerhouse.
Offtake	25 year Power Purchase Agreement with the Kansas City Board of Public Utilities, which will purchase 100% of the capacity and energy generated.
Construction	Kissick Construction of Kansas City is the general contractor.
Funding	Recovery Zone Facility Bonds $14.1 million Qualified Energy Conservation Bonds $ 8.7 million Industrial Revenue Bonds $ 1.0 million Equity $ 0.4 million *Total* *$24.2 million*
Highlights	The long term cost of capital, after taking into account the federal interest rate subsidies, is 6.70%. The Sponsor anticipates that the project, as a renewable energy resource, will be eligible to receive a 1603 tax grant of approximately $4.9 million, which will substantially de-lever the capital structure after the project is placed in service.

Source: SternBrothers & Co., May 2012.
http://www.gscwest.com/Presentations/Session2ResourceMgmtDennisCiocca.pdf
Elizabeth Bellis, Energy Programs Consortium (2012)
http://www.nga.org/files/live/sites/NGA/files/pdf/1206PolicyInstituteBellis.pdf

Key Legal Citations

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

- 26 USC § 54A
- 26 USC § 54D
- 26 USC § 6431

- IRS Notice 2009-29
- IRS Notice 2010-35
- IRS Notice 2012-44

- Tenn. Code Ann. §4-31-102

Important Links

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

- Applied Solutions: http://www.appliedsolutions.org/
- Elizabeth Bellis memo on QECBs: http://naseo.org/resources/financing/qecb/EPC_Memo.pdf
- NASEO resources: http://www.naseo.org/resources/financing/qecb/index.html

State QECB Contacts and Resources

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

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ECD QECB Website
http://www.tn.gov/ecd/CD_QECB.shtml

Subscribe to the QECB email listserv!

Technical Assistance Contact Information

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QUESTIONS OR COMMENTS?

WE WILL TAKE QUESTIONS FROM LOCAL GOVERNMENTS FIRST

Q&A will be posted on the ECD QECB website.

If we do not have time to cover your question during the session, please email it to Katie.Southworth@tn.gov and we will work to get a response as soon as possible.

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