



Innovations in Multifamily Energy Efficiency Education and Financing in Tennessee

Presentation to Buildings Committee at NASEO Annual Meeting
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The Demographic Case for Multifamily Energy Efficiency in Tennessee

- According to the ACEEE, approximately 18% of households in Tennessee live in multifamily buildings of at least 2-4 units, and the share is growing steadily
- Low rates of single-family home ownership in 25-34 age cohort
- The difficulty in securing a mortgage makes renting a more viable housing option

Sources: Freeman Webb Companies; "Renter Nation," Gene Epstein, Barron's Magazine





The Business Case for Multifamily Energy Efficiency in Tennessee

- Reduced operations and maintenance costs typically result in higher property cash flow and investor yields
- Reduced turn-over/vacancy rates due to lower tenant utility expenses
- Low-Income Housing Tax Credits provide equity to incorporate energy efficiency projects

Sources: American Council for an Energy Efficient Economy; Lawler Wood Housing, LLC; 2011 American Community Survey; Gary Pivo, Energy Efficiency and its Relationship to Housing Income in Multifamily Rental Housing (2012).





Potential for Low-Income Housing Tax Credit Development in Tennessee

	New Construction	Acquisition/Rehab
Estimated Projects	21/year	7/year
Estimated Units	74/year	148/year
Estimated Costs	\$77,000,000	\$51,800,000
Tax Credits at 65%	\$50,505,000	\$33,670,000
Amount of Permanent Financing Required	\$26,495,000	\$18,130,000

Source: Pathway Lending





Program Innovations



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Tennessee Energy Education Initiative (TEEI)

- The Tennessee Department of Environment and Conservation, through its Office of Energy Programs, launched the Tennessee Energy Education Initiative in the Spring of 2013.
- The Initiative is being delivered in conjunction with statewide energy resource providers.
- TEEI is focused on providing in-depth training and educational tools to support the implementation of energy efficiency, renewable energy, and energy management projects.





Tennessee Energy Education Initiative (TEEI)

- Funding for the Tennessee Energy Education Initiative is provided by the U.S. Department of Energy through the American Reinvestment and Recovery Act. As a result, the program has been able to provide “tuition paid” workshops and conferences at many locations throughout the State.
- Presentations, materials and other resources are available on the Initiative's Online Resource Center at tnenergy.org/resources.
- Series of issue-specific webinars



Calendar of Events

www.TnEnergy.org

Date	Event	City	# Attendees
March 13	TDEC Environmental Conference – TEEI Energy Sessions	Kingsport	75
April 10	Tennessee Solar Summit	Chattanooga	81
April 22	TREEDC / Jackson Energy Authority Forum	Jackson	60
May 2	TCCI Manufacturing Energy Conference	Nashville	121
May 2-3	UT Baker Center Electric Vehicle Symposium	Knoxville	120
May 8	Chattanooga Manufacturing Association Energy Efficiency Conference	Chattanooga	41
May 17	TREEDC / Bethel University Forum	McKenzie	75
June 12	TREEDC / Columbia State College Forum	Franklin	53
June 13	Business and Industry Workshop w/ Clarksville Dept of Electricity	Clarksville	33
June 25-26	Memphis and Shelby County Sustainability Summit	Memphis	201

Calendar of Events

www.TnEnergy.org

Date	Event	City	# Attendees
July 9	TREEDC Austin Peay University Forum	Clarksville	64
July 12	Solar PV Codes Training for Inspectors and Firefighters	Goodlettsville	18
July 17-18	Industrial Energy Efficiency Summit	Nashville	126
July 22 -25	Energy Efficiency in Water and Wastewater Systems	Jackson, Murfreesboro, Knoxville	229
July 22 – 26	NABCEP Solar PV Certificate of Knowledge Training	Spring Hill	9
July 22 – 23	2012 IECC Residential Energy Conservation Building Energy Codes Instructor Training	Bell Buckle	10
July 25	National Association of Women Business Owners - Nashville Chapter - Focus on Energy Efficiency	Nashville	67
July 26	TREEDC Tennessee Tech University 3 rd Annual Forum	Cookeville	65
July 29	Solar PV Codes Training for Inspectors and Firefighters	Milan	12
July 30	Untapped Opportunities for Energy Efficiency in Multifamily Housing	Nashville	47

Calendar of Events

www.TnEnergy.org

Date	Event	City	# Attendees
August 6-8	2012 IECC Duct Envelope Tightness Building Energy Codes Instructor Training	Bell Buckle	10
August 9	Solar PV Codes Training for Inspectors and Firefighters	Bristol	8
August 15	Untapped Opportunities for Energy Efficiency in Multifamily Housing	Knoxville	43
August 21-22	Oak Ridge National Laboratory's 3 rd Annual Southeast Sustainability Summit	Knoxville	248
August 26-29	2012 IECC Commercial Energy Conservation Building Energy Codes Instructor Training	Bell Buckle	12
August 29	Business and Industry Workshop with area Distributors	Murfreesboro	40
August 29	Energy Pro 3: Prosperity, Progress, Productivity	Nashville	40
September 3	Qualified Energy Conservation Bonds (QECCB) Workshop	Nashville	21
September 5	2012 IECC Residential Energy Conservation Building Energy Codes Inspector Training	Bell Buckle	6
September 6	2012 IECC Duct Envelope Tightness Building Energy Codes Inspector Training	Bell Buckle	3
September 6	Qualified Energy Conservation Bonds (QECCB) Workshop	Knoxville	15

Calendar of Events

www.TnEnergy.org

(*registration fee)

Date	Event	City	# Attendees
September 9-13	NABCEP Solar PV Certificate of Knowledge Training	Johnson City	
September 11	Qualified Energy Conservation Bonds (QECCB) Workshop	Jackson	10
September 12	Qualified Energy Conservation Bonds (QECCB) Workshop	Chattanooga	14
September 16 – 20	NABCEP Solar PV Certificate of Knowledge Training	Jackson	
September 17	Business and Industry Workshop with MLGW	Memphis	
September 18	Tracking Consumption with Energy STAR'S Portfolio Manager [®]	Webinar	
September 19	Business and Industry Workshop with Area Distributors	Morristown	
September 22-24	*American Council for an Energy Efficient Economy - National Conference on EE as a Resource	Nashville	
September 26	Tennessee Economic Development Council (Energy Session)	Brentwood	
September 26-27	2012 IECC Commercial Energy Conservation Building Energy Codes Inspector Training	Bell Buckle	
September 25 – 29	National Plug-In Day Activities	Statewide	



Tennessee Energy Education Initiative (TEEI) and Multifamily Energy Efficiency

- TEEI convenes national and regional experts to address solutions specifically for multifamily builders, developers, property owners, and facility managers
- Dedicated workshops to provide stakeholders with information and resources for multifamily energy efficiency, energy management and renewable energy options





Tennessee Energy Education Initiative (TEEI): Multifamily Workshops

Memphis and Shelby County Sustainability Summit (June 2013)

- Regional symposium featuring 200 participants
- Keynote address by Kate Johnson at ACEEE: “The Untapped Potential in Multifamily Housing”
- Presentation by Bill Carson, McCormack Baron Salazar: “Opportunities for Energy Efficiency Improvements – Best Practices in Sustainable Multi-Family Housing”





Tennessee Energy Education Initiative (TEEI): Multifamily Workshops

Untapped Opportunities for Energy Efficiency in Multifamily Housing
(July 2013)

- Nashville, TN at Freeman Webb Companies, a leading multifamily development and management firm
- 47 participants
- Featured keynote address by Danny Orlando, EPA
- Panel discussion on financing and technology options





Tennessee Energy Education Initiative (TEEI): Multifamily Workshops

Untapped Opportunities for Energy Efficiency in Multifamily Housing
(August 2013)

- Knoxville, TN
- 43 participants
- Featured keynote address by Bill Carson, McCormack Baron Salazar
- Panel discussion on financing and technology options





Tennessee Energy Education Initiative (TEEI): Online Multifamily Resources

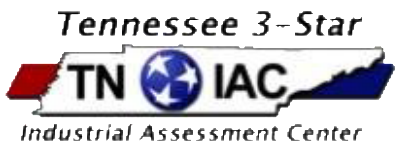
- TEEI launched an Online Resource Center in July 2013 that contains content devoted specifically to the multifamily sector
 - 13 presentations from TEEI events relevant to multifamily
 - Links to federal incentives and local utility incentive programs
 - Webinar on ENERGY STAR® Portfolio Manager,™ September 18

tenergy.org/resources/multi-family/





TEEI Partners





TEEI Partners



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Financing Innovations



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Pathway Lending

- A Private, Non-Profit Economic Development Lender certified by the U.S. Department of Treasury.
- Mission: Providing underserved small businesses with lending solutions and educational services that result in job creation and economic development.
- **Energy Efficiency and Renewable Energy Project Lender:** Operates the Tennessee Energy Efficiency Loan Program in conjunction with the State of Tennessee, the Tennessee Valley Authority and Pinnacle Bank.





Energy Efficiency Loan Program

- A \$50M low-interest, revolving loan fund to finance energy efficiency and renewable energy projects in Tennessee.
- Target markets are commercial, industrial and private non-profit sectors.
- Eligible projects: any investment in a fixed asset that provides significant reductions in energy, emissions, and/or utility consumption.





Energy Efficiency Loan Program

- Loans range from \$20,000 to \$5M.
- Below market rates and 100% financing for:
 - ✓ Energy assessments
 - ✓ Engineering
 - ✓ Purchasing and Installation
- Leveraged opportunities through TVA's EnergyRight Solutions for Business Program, federal tax credits and other incentives.





Energy Efficiency Loan Program: Multifamily Option

- Minimum of 20 units
- Eligible improvements include high efficiency HVAC, lighting, water, appliances, controls, building envelope improvements, and renewables
- Required pre-project assessment demonstrating modeled energy savings of at least 10%





Energy Efficiency Loan Program: Multifamily Option

- Required verification of installation
- Terms:
 - 3.5% for 10 years
 - 4.0% for 15 years
- Portfolio concentration not to exceed \$10M
- Expected demand for 2014: \$4M





Conclusion

- The Tennessee Energy Efficiency Initiative is engaging businesses, developers, property managers, governments and other organizations to drive demand for energy efficiency, energy management and renewable energy projects.
- As a partner with the State and other stakeholders, Pathway Lending is providing a viable financing mechanism to drive demand for multifamily energy efficiency in Tennessee.





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www.tn.gov/environment/energy.shtml

