

East Kentucky Power Cooperative
Key Accounts Technical Conference

Commercial Tax Deductions for Energy Efficiency

James Bush

Division of Renewable Energy and Energy Efficiency
Kentucky Office of Energy Policy

October 18, 2006



Overview

- KOEP
- Activities
- Commercial Tax Deductions

About Us

- Commerce Cabinet



- Kentucky Office of Energy Policy (KOEP)



- Division of Renewable Energy & Energy Efficiency (DRE3)



KOEP Mission

Mission Statement:

To oversee the implementation of Kentucky's comprehensive energy strategy, *Kentucky's Energy: Opportunities for Our Future*



Comprehensive Energy Strategy

Unveiled Feb 2005

Kentucky's first energy policy consists of 54 recommendations to guide the state's energy future according to the following principles:

- 1) Maintain Kentucky's low-cost energy
- 2) Responsibly develop Kentucky's energy resources
- 3) Preserve Kentucky's commitment to environmental quality



Comprehensive Energy Strategy

54 Recommendations

1-9: Energy Efficiency

10-12: Renewable Energy

13-18: Electricity

19-36: Coal

37-41: Natural Gas

42-54: Energy Future



Project Coordination

Partnerships

- DOE, USDA, EPA (the “mind”)
 - Program Areas, Grant Funding



KOEP



- Universities, Non-Profits (the “body”)
 - Research, Education, Demonstration, Promotion



Project Coordination

Examples

- Enhanced Building Energy Efficiency
 - Enhance outreach of building EE technologies and practices
 - Educate builders about benefits of EE buildings
- Energy Savings Performance Contracting
 - Improve awareness about energy efficiency
 - Produce DVD overview of ESPC for national audience



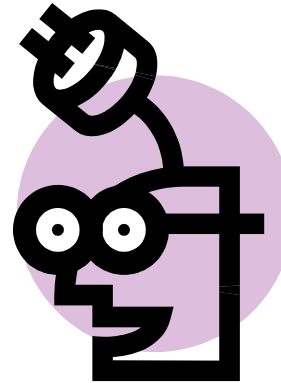
Overview

- KOEP
- Activities
- Commercial Tax Deductions

Activities

Public Awareness

- Energy Efficiency
 - Residential, C&I
 - Government
 - Transportation
- Renewable Energy
 - Biomass, Biofuels
 - Solar, Wind, Hydro
 - Green Power



Activities

Business Support

- Networking
 - Technical Services
 - State Agencies
 - Partnerships, Financing
- Informational Resources
- Federal & State Initiatives
- Seminars & Workshops



Activities

Data Collection

- Energy Information Agency
- Regional Partnerships
- State Agencies
- State Legislature



Activities

Research & Development

- KOEP Energy Research, Development & Demonstration
 - Advance energy R&D capacity in Kentucky
 - Encourage greater exchange between state universities and federal laboratories



Activities

Financial Incentives

- KY Cabinet for Economic Development
- KY Office of Agriculture Policy
- USDA, DOE, EPA
- Federal Tax Incentives (EPA Act)
- State Tax Incentives



Overview

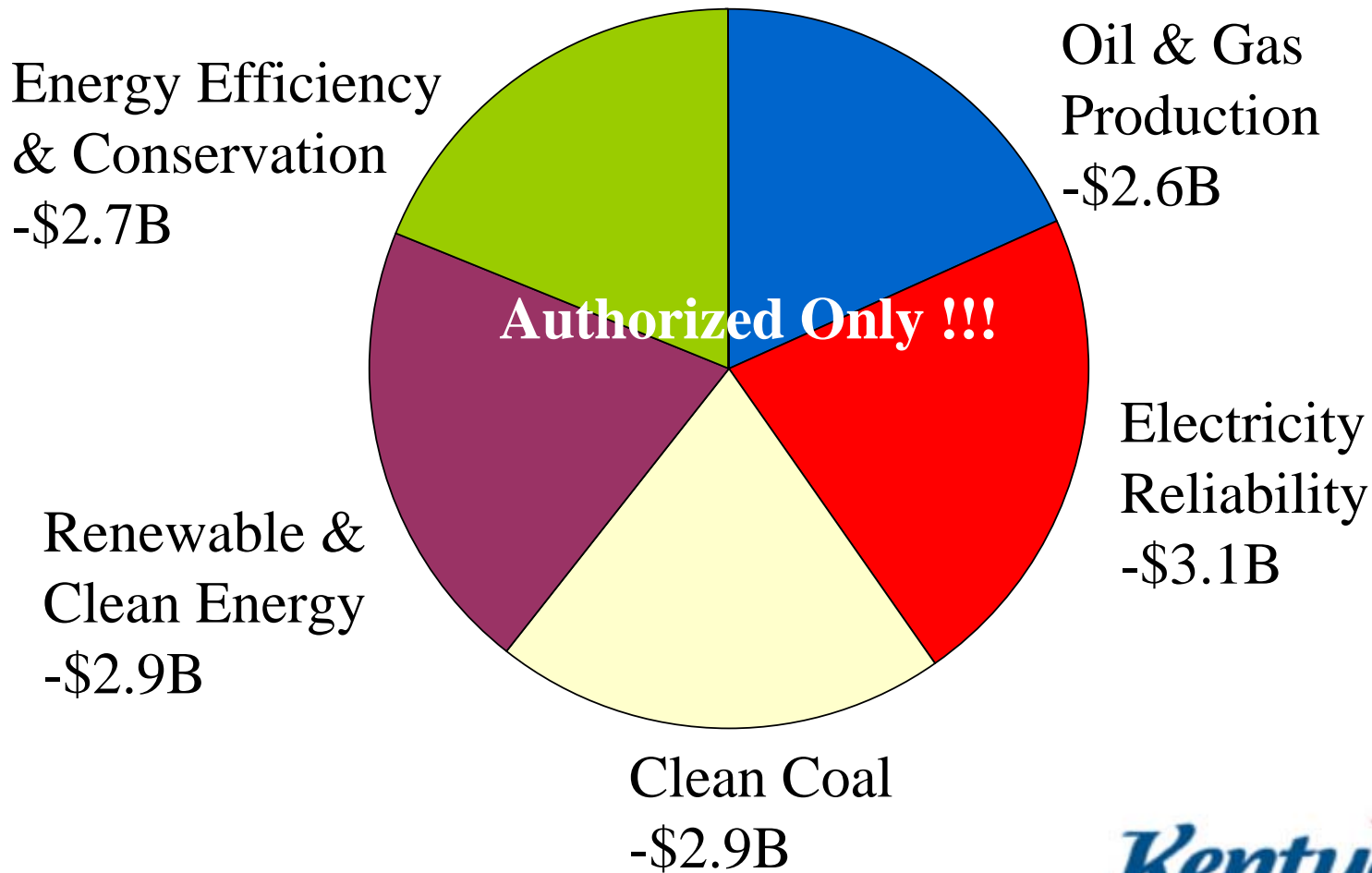
I. KOEP

II. Activities

III. Commercial Tax Deductions

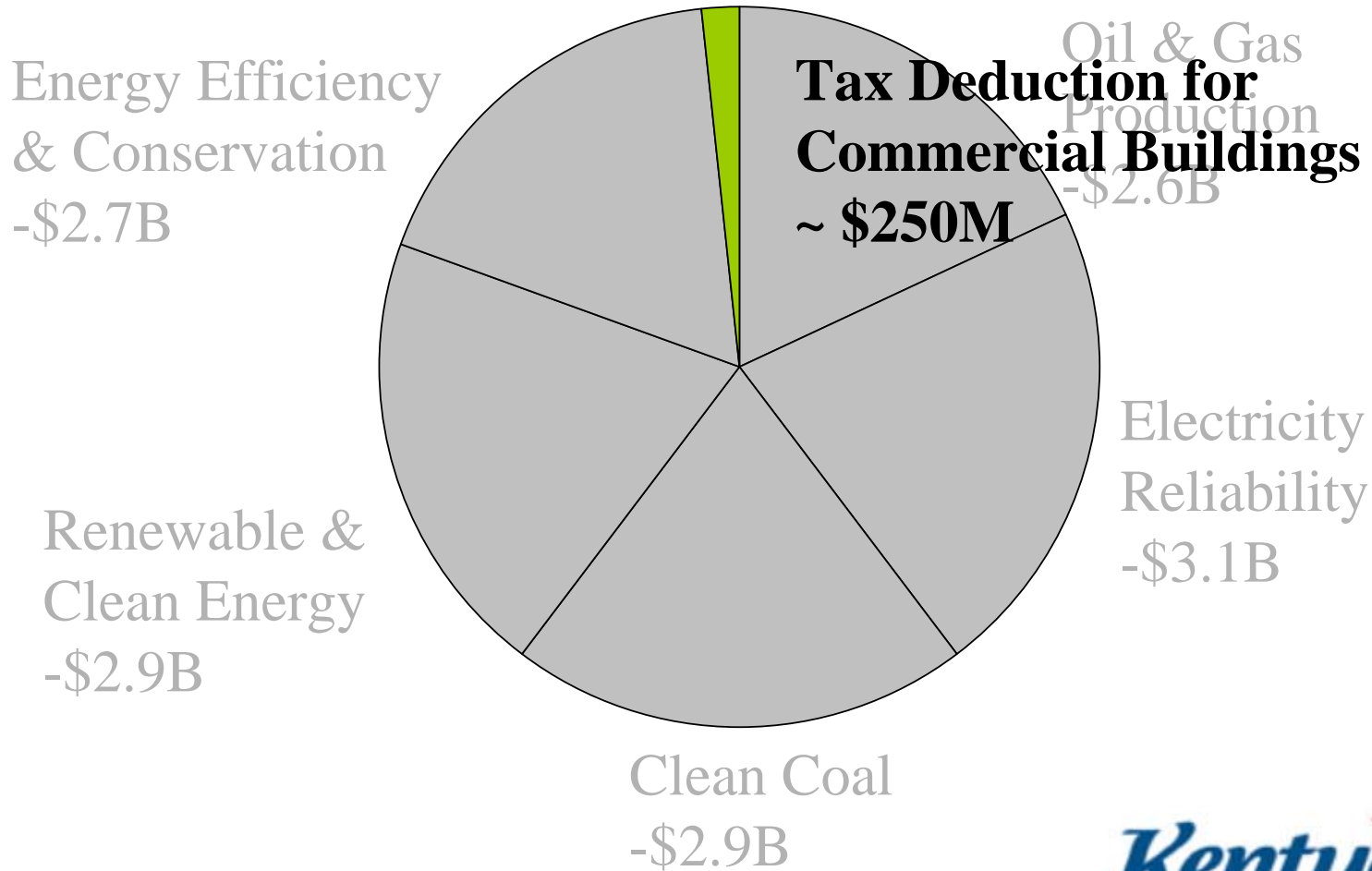
EPAct 2005

Energy Tax Incentives in H.R. 6 \$14.5B Fiscal Years 2005 - 2015



EPAct 2005

Energy Tax Incentives in H.R. 6 \$14.5B Fiscal Years 2005 - 2015



EPAct 2005

Commercial Buildings Tax Deduction

A tax deduction of \$1.80 per square foot for whole buildings using 50% less energy on a cost basis than a building designed to ASHRAE/IESNA 90.1-2001*, or

A partial deduction of \$0.60 per square foot for improvements made to one of three building systems using 1/3 less energy than the 50% goal.

* In effect on April 2, 2003 (includes Addenda)



Commercial Building Tax Deduction

Eligible expenditures must be:

- Installed on or in buildings located in the U.S. and within scope of Standard 90.1
- Placed “in service” before Dec 31, 2007
- Installed as part of:
 1. Interior lighting
 2. HVAC and hot water
 3. Building envelope



Commercial Building Tax Deduction

Who claims the CBTD?

“The person who owns the asset for tax purposes”

- Generally the building owner,
- Possibly the tenant, or
- For government buildings, the primary designer of the asset



Commercial Building Tax Deduction

- Deduction is taken the year the building or system is placed in service
- Asset must be certified with inspection and testing
- By an engineer or contractor licensed in the jurisdiction in which the building is located
- Using DOE approved software

http://www.eere.energy.gov/buildings/info/qualified_software/



Commercial Building Tax Deduction

- Guidance and procedures for CBTD are contained in IR Bulletin 2006-26*
<http://www.efficientbuildings.org/PDFs/internal-rev-bulletin06-26.pdf>
- Formal regulations forthcoming (e.g. a final rule by the IRS)

* Bulletin corrects lighting calculation error in earlier release of Notice 2006-52, Section 2.03(2)(b)(II)



Commercial Building Tax Deduction

Deduction Paths

1. Full deduction (\$1.80 sqft) for whole building 50% energy cost reduction
2. Partial Deduction (\$0.60 sqft) for individual building system meeting 16 $\frac{2}{3}$ % target
Lighting HVAC & Hot Water Building Envelope
3. Interim Lighting Rules allows a pro-rated partial deduction (\$0.30 - \$0.60 sqft) based on lighting power density reduction



Commercial Building Tax Deduction

1. Full Deduction

- 50% energy cost reduction compared to reference building
- Energy performance of reference building determined by
 - Performance Rating Method (PRM) in Appendix G of Standard 90.1, using
 - Load estimates from 2005 California Title 24 Nonresidential “ACM” Manual
- Hence, DOE approved software



Commercial Building Tax Deduction

2. Partial Deduction

- 16 ²/₃% energy cost reduction compared to reference building
- Energy performance of reference building determined by PRM + Title 24 (same)

Difficult to obtain when system comprises smaller portion of overall energy cost. NEMA example,

Strip Mall: 22% envelope, 28% lighting, 50% mechanical



Commercial Building Tax Deduction

3. Pro-rated Lighting Deduction

- 25% to 40% lighting power density (LPD) reduction compared to Standard 90.1 prescriptive lighting tables*
- Plus controls provisions of Standard 90.1
- Plus bi-level switching
- Plus IESNA minimum light levels

* Warehouses must meet 50% LPD reduction



Commercial Building Tax Deduction

3. Pro-rated Lighting Deduction

25% → 40% LPD reduction
\$0.30 → \$0.60 per sqft deduction

The remaining 10% (to meet goal) comes from the bi-level switching requirement



Commercial Building Tax Deduction

Is this possible? YES !

<http://www.advancedbuildings.net/>

- Efficient envelope systems
- High performance glazing and selective orientation with solar control
- High efficiency lighting and controls
- High efficiency HVAC and controls
- Daylighting
- Ventilation control and heat recovery



Resources

CBTD websites

- www.efficientbuildings.org
- www.energytaxincentives.org

CBTD Lighting websites

- www.lightingtaxdeduction.org
- www.energybillinfo.com



Contact Information

James Bush

james.bush@ky.gov

502.564.7192

Kentucky Office of Energy Policy

www.energy.ky.gov



East Kentucky Power Cooperative
Key Accounts Technical Conference

Commercial Tax Deductions for Energy Efficiency

James Bush

Division of Renewable Energy and Energy Efficiency
Kentucky Office of Energy Policy

October 18, 2006

