



“Going Green” Gets a Boost: New Federal Funds for Local Initiatives

***National League of Cities
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Environmental & Energy Study Institute (EESI)

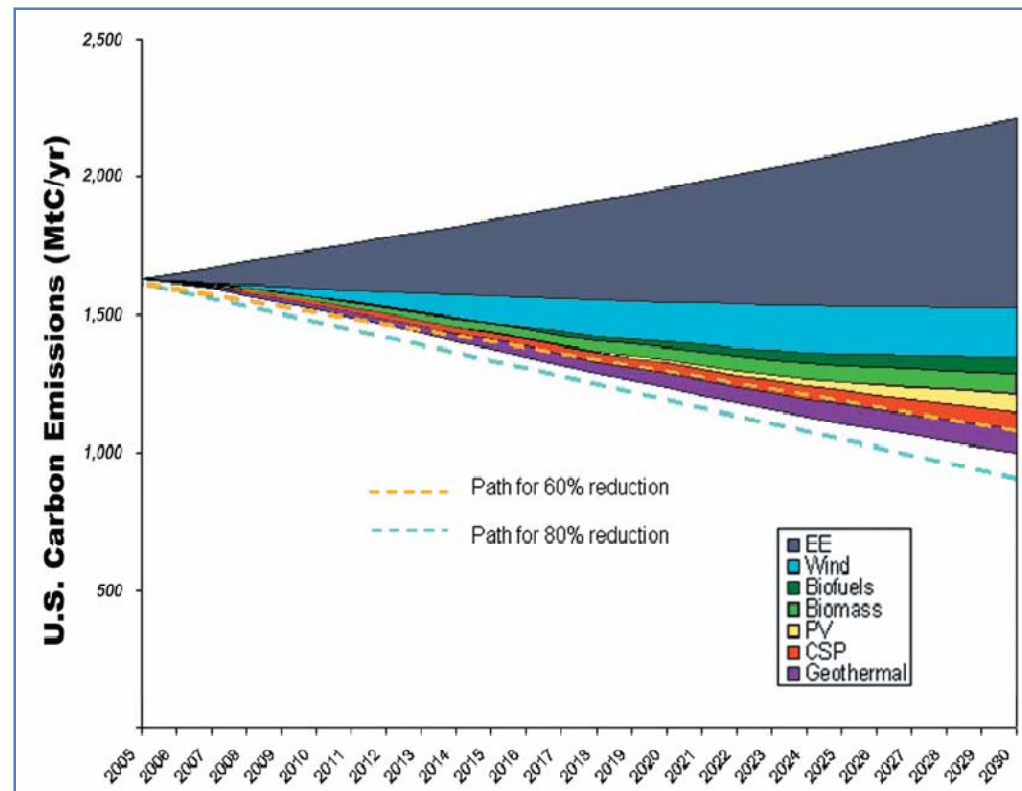
Seeking Innovative Environmental and Energy Solutions



- Dedicated to promoting sustainable societies through innovative policies on energy, climate, transportation, agriculture, and smart growth
- Founded in 1984 by a bipartisan Congressional Caucus
- Provides timely information regarding science, policy, and technologies
- Organizes ~ 25 Congressional briefings a year
- Builds coalitions and networks
- Publishes 3 electronic newsletters: *Climate Change News*, *BCO (Bioenergy/Climate Protection/Oil Reduction)*, *Clean Motion*
- EESI Associates Program allows companies and individuals to participate

Energy Efficiency and Renewable Energy Can Play a Key Role in Climate Mitigation

- Approximately 57% of the total carbon reduction contribution is from energy efficiency (EE) and about 43% is from renewables by 2030.
- Energy efficiency measures can allow U.S. carbon emissions to remain about level through 2030, whereas the renewable supply technologies can provide large reductions in carbon emissions below current values.



Potential carbon reductions in 2030 from energy efficiency and renewable technologies and paths to achieve reductions of 60% and 80% below today's emissions value by 2050.

Source: American Solar Energy Society. Tackling Climate Change in the U.S.—Potential U.S. Carbon Emissions Reductions from Renewable Energy and Energy Efficiency by 2030. January, 2007.

Energy Independence and Security Act of 2007 (EISA, P.L. 110-140)

- Renewable Fuel Standard
- Vehicle Fuel Economy (CAFÉ)
- Renewable Energy R&D
- **Energy Efficiency and Conservation Block Grants**
- **Energy Efficient Buildings and Industry**
- **Appliance and Lighting Efficiency Standards**
- **Green Jobs**
- **Green Schools**
- **Small Business Assistance**

Energy Efficiency Block Grants

Title V, Subtitle E directs DOE to establish an **Energy Efficiency and Conservation Block Grant program** “to help reduce energy use and emissions at the local and regional level.”

- Grants can be used to develop energy efficiency strategies, conduct building energy audits, develop building codes and inspection services to improve building energy efficiency, and other activities
- Authorizes \$10 billion (\$2 billion per year for 5 years)
- **PRESIDENT’S BUDGET PROVIDES NO FUNDING**

Buildings

Residential

- Authorizes \$3.75 billion over 5 years for DOE's Weatherization Program
- Requires DOE to establish energy efficiency standards for manufactured housing

Commercial

National goal of high-performance, zero-net-energy use new buildings after 2025; retrofit pre-2025 buildings by 2050

Federal

Requires high-performance, carbon-neutral by 2030

Schools

EPA grants to ensure healthy, high-performance schools

Buildings

- Directs HUD to update energy efficiency standards for all public and assisted housing
- \$10 million to support four high-performance building demonstration projects at universities
- EPA competitive grants to local governments for green building demonstration projects
- Grants and loans to support energy sustainability projects at public institutions

Definition of High-Performance Building (Title IV, Sec. 401)

“...building that integrates and optimizes on a lifecycle basis all major high performance attributes, including energy conservation, environment, safety, security, durability, accessibility, cost-benefit, productivity, sustainability, functionality, and operational considerations.”

Energy Savings Through Improved Standards for Appliances and Lighting

Appliance Energy Efficiency Standards include:

- External power supply efficiency standards
- Residential boilers
- Regional standards for furnaces, central air conditioners, and heat pumps
- Battery chargers
- Standby mode
- Energy standards for home appliances
- Walk-in coolers and walk-in freezers
- Electric motor efficiency standards
- Improved energy efficiency for appliances, buildings in cold climates

Lighting Energy Efficiency Standards include:

- Efficient light bulbs
- Incandescent reflector lamp efficiency standards
- Public building energy efficient and renewable energy systems
- Metal halide lamp fixtures
- Energy efficiency labeling for consumer electronic products

Green Schools

- EISA Title III, Subtitle E

Healthy High-Performance Schools

- Grants for healthy school environments (technical assistance with EPA Tools for Schools, development of design standards)
- Model guidelines for siting of school facilities
- Public clearinghouse on environmental hazards
- Voluntary guidelines for state environmental health programs for schools

High Performance Schools

- Security, Accessibility, Sustainability, ETC
- *SBIC High Performance School Buildings Resource and Strategy Guide*
(www.sbicouncil.org/store/hpsb_rsg.php)
- www.nyserda.org/hps/default.asp

Small Businesses

- Innovators of clean technology
- Big part of economy and energy use
- EISA Title XII: Small Business Energy Programs
 - Loans, grants to help small businesses develop, invest in, and purchase energy efficient buildings, fixtures, equipment, and technology
 - SBA “express” loans for EE/RE projects

Green Jobs

- \$125 million authorized for Department of Labor to establish national and state job training programs for development of energy efficient buildings and vehicles, renewable electric power, and biofuels
- Not included in '09 budget request

Proposed but NOT in EISA

- Renewable Energy Portfolio Standard (RPS)
 - Target of 15% total electricity sales to be met by renewable energy sources by 2020 (of 15%, can count 4 % from efficiency)
- Renewable Energy and Energy Efficiency Tax Incentives
 - Repeal of oil and gas subsidies, 4-year extension of renewable energy electricity production tax credit, solar investment tax credit, and “CREBS”
- Building energy code improvements

Congress Tries Again on RE/EE Tax Credits

- Effort to include in “stimulus” package failed
- U.S. House of Representatives on 2/27/08 passed the Renewable Energy and Energy Conservation Act of 2008 (H.R. 5351) to extend:
 - Production Tax Credit through 12/31/2011 (wind, geothermal, biomass, trash to energy, etc.) – 35% of facility’s cost
 - Investment Tax Credit through 12/31/2016 (solar energy property, fuel cells) – 30%
- Allows public utilities to claim ITC

H.R. 5351

- New Clean Renewable Energy Bonds
 - Authorizes \$2 billion of new “CREBS” for public power providers & electric co-ops
- Extends residential property tax credit to 12/31/2014 for solar (increases max. from \$2,000 to \$4,000) and includes small-scale wind turbines (30%, max. \$4,000), and geothermal heat pumps (max. \$2,000)

H.R. 5351

- New and extended tax credits for production of renewable fuels
- New credit for plug-in hybrid electric vehicles (PHEV). Base amount: \$4,000
(~ 75 cities in Plug-in Partners Coalition, <http://www.pluginpartners.org>)

H.R. 5351

- Energy Conservation Bond
 - To states/municipalities/tribal gov'ts for:
 - Capital expenditures for reducing energy consumption in publicly-owned buildings by at least 20%
 - Green community programs
 - Other initiatives to reduce energy consumption and greenhouse gas emissions

H.R. 5351

- Extends energy efficient commercial buildings tax deduction through 12/31/2013
 - Allows building owner to deduct expenses incurred for energy efficient building upgrades. The deduction is limited to \$1.80 per square foot of the property.

Economic Stimulus

- Energy efficiency and renewable energy tax credits will have powerful impact on cities:
 - Capital expenditures add to tax base, add and retain jobs
 - Financial incentives help utilities, government, businesses, homeowners invest in clean energy/energy efficiency
- Works hand-in-hand with Energy Efficiency Block Grants; keeps \$ where needed: Local “living labs”
- Complements State Climate Change Action Plans and Mayors’ commitments to reducing GHG emissions
- Depends on \$17 billion reduction in oil/gas subsidies; price on carbon will level the playing field

Or Lost Opportunity?

- Solar and wind federal tax credit expiration could result in loss of \$19 billion in investment opportunity and 116,000 jobs.*
- Senate action next; not necessarily H.R. 5351
- Broad-based support from all sectors
- Young industry needs government to provide certainty and stability through sound public policy

*Source: Navigant Consulting, Inc.

Economic Impacts of the Tax Credit Expiration

Report prepared for American Wind Energy Association and Solar Energy Research and Education Foundation, February 13, 2008

Building Energy Codes

- Buildings consume about 40% of the total energy used in the U.S. (nearly 50% if include industrial processing to make building materials + transport) and account for a commensurate amount of GHG emissions; 70% of electricity; water and other natural resources
- Buildings (should) last 50-100 years
- New buildings = Opportunity to “design out” inefficiencies
- Building codes = baseline for builders
- Improved building codes raise the bar

Advanced Building Energy Codes

If model building energy codes are improved (**and adopted by states/local governments**) by 30% in 2010 and 50% in 2020, we could reduce total U.S. energy use by 5% (6 quadrillion Btus), save \$50 billion a year, and eliminate 100 million tons of carbon (GHG reduction equal to taking 70 million cars off the road).

Source: Alliance to Save Energy

Advanced Building Energy Codes

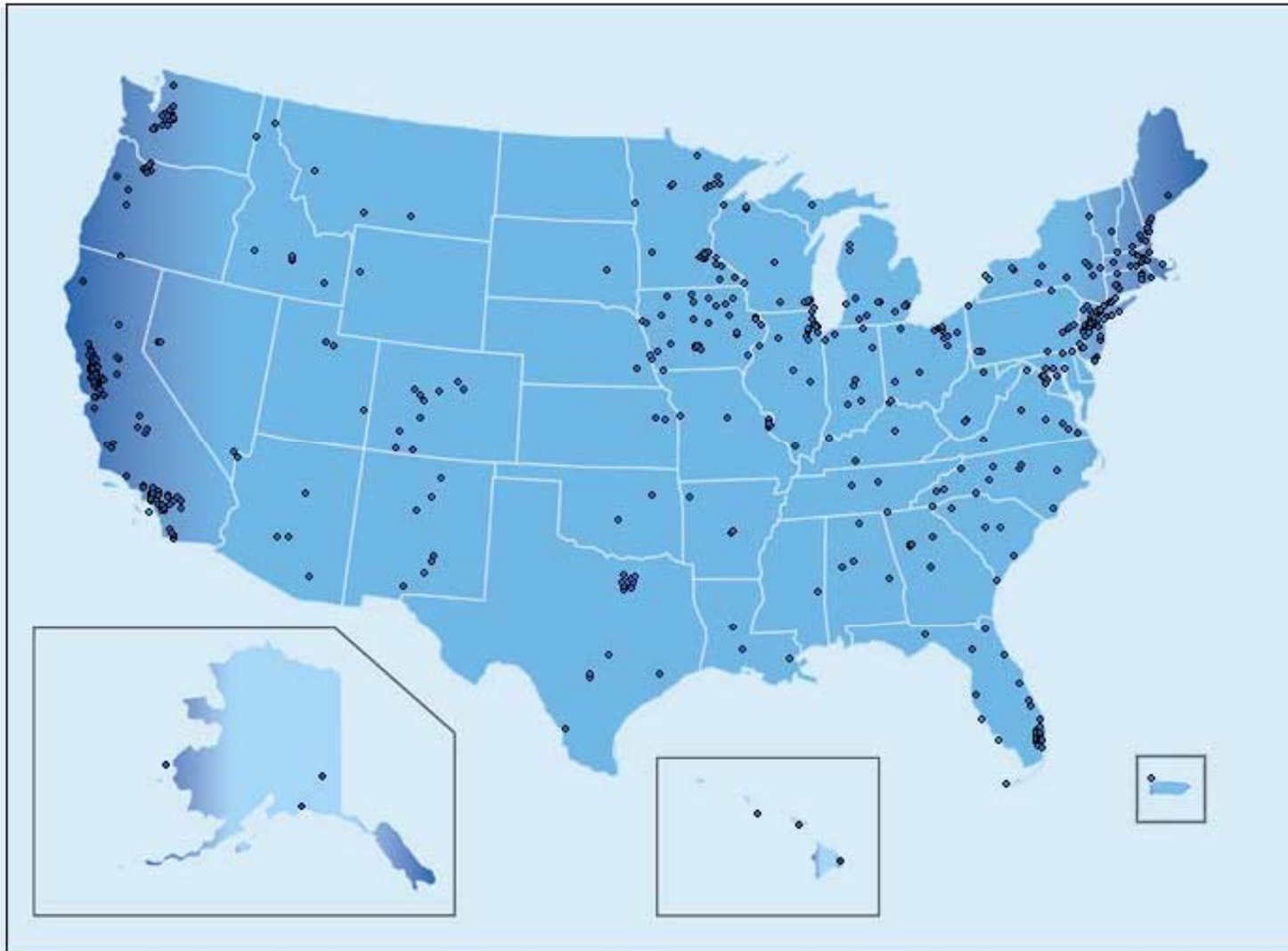
- National model codes are updated every few years by two professional organizations:
 - International Code Council – (Residential) International Energy Conservation Code
 - ASHRAE – (Commercial) ASHRAE Standard 90.1
- Section included in EISA, then dropped
- The Energy Efficient Codes Coalition

Local Leadership

- New AIA publication, *Local Leaders in Sustainability: A Study of Green Building Programs in Our Nation's Communities*
 - Current status of green building laws in American cities as of 2007
 - AIA spoke to planners and officials in 606 cities during the summer of 2007 and found:
 - 92 cities have green building programs; additional 36 are in development; west leads the way
 - http://www.aia.org/adv_localleaders

U.S. Conference of Mayors Climate Protection Agreement

780 Mayors have signed the agreement as of February 1, 2008



FY '09 Budget Request

- **Zeros out** Weatherization Assistance Program Grants (**100% cut from \$227 million** in FY 08)
- **Zeros out** Renewable Energy Production Incentive (**100% cut from \$5.0 million** in FY 08)
- **Cuts \$6.9 million** from Hydropower Program (**70% cut** from FY 08 appropriations)
- **Cuts \$4.9 million** from Tribal Energy Activities (**83% cut** from FY 08 appropriations)
- **Cuts \$12.3 million** from Solar Energy Program (**7% cut** from FY 08 appropriations)
- **Increases by \$26.8 million** Biomass and Biorefinery Systems R&D (**13% increase** over FY 08 appropriations)
- **Increases by \$14.8 million** Building Technologies (**13% increase** over FY 08 appropriations)
- **Increases by \$10.2 million** Geothermal Technology (**51% increase** over FY 08 appropriations)

Sustainable Cities

It is critical for city planners to integrate sustainable energy into master plans.

- EESI supports resources for local initiatives. Let's work together!
- Energy Efficiency Block Grants would fund “smart growth” planning and zoning
- American Planning Association/EESI Project

Selected Resources

- www.eesi.org
- www.eesi.org/programs/Smartgrowth/smartgrowth.htm
- www.planning.org/energy
- www.wbdg.org
- www.epa.gov/schools
- www.chps.net
- www.energystar.gov
- www.nrel.gov
- www.awea.org
- www.seia.org
- www.aia.org
- www.usgbc.org
- www.ase.org
- www.architecture2030.org

THANK YOU!



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