



**U.S. Department of Energy**  
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**Building Energy Codes**

U.S. Department of Energy

# **Assisting States Meet the ARRA Requirements Through Utility Involvement**

**2010 Midwest Energy Solutions Conference**  
**January 13 - 15, 2010**

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# ARRA-SEP Legislation

- SEP funding is provided over base allocations if states:
  - Adopt the most recent IECC residential energy code (2009 IECC) or equivalent
  - Adopt ASHRAE's Standard 90.1-2007 or equivalent
  - ***Develop a plan to achieve 90 percent compliance within eight years. Include active training and enforcement programs and annual measurement.***



# ARRA-SEP Legislation

- Section 410

*A plan for the jurisdiction achieving compliance with the building energy code or codes described in subparagraphs (A) and (B) within 8 years of the date of enactment of this Act in at least 90 percent of **new and renovated residential and commercial building space**. Such plan shall include active training and enforcement programs and measurement of the rate of compliance each year.*

- SEP Grant Information

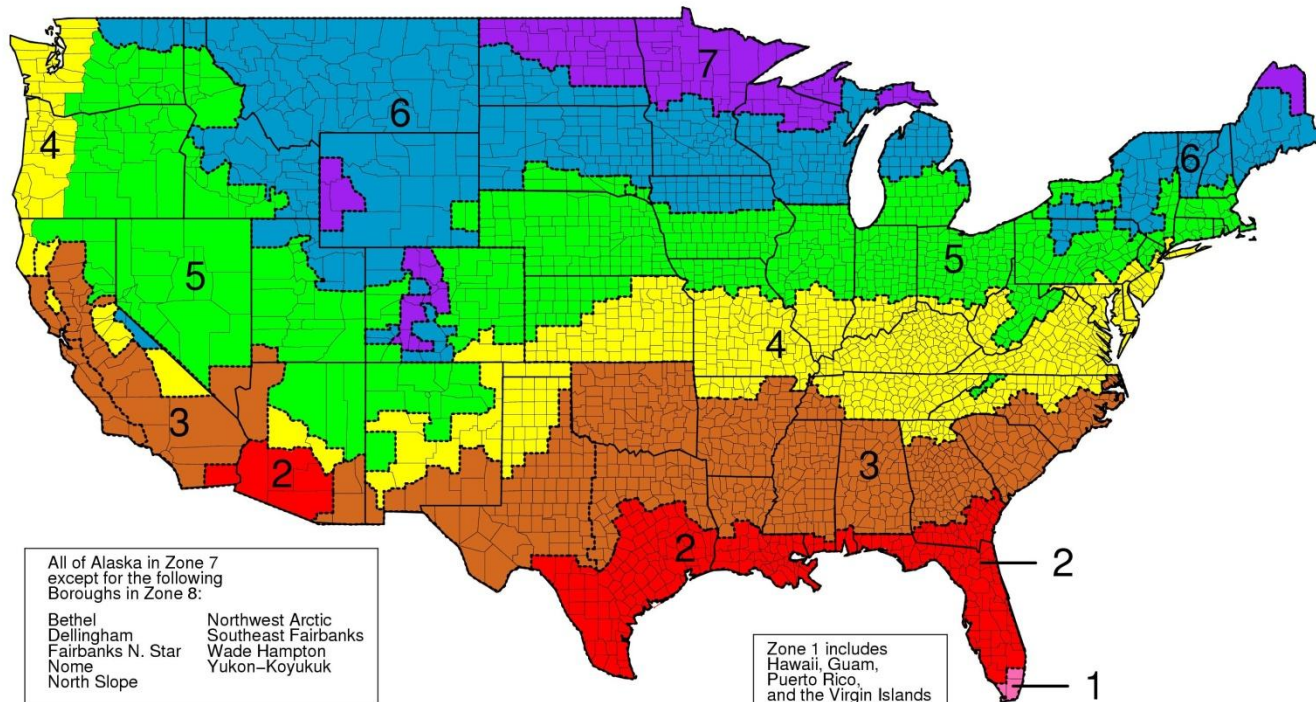
*A plan to achieve 90 percent compliance with the above energy codes within eight years. This plan will include active training and enforcement programs and annual measurement of the rate of compliance.*

# Objectives of Legislation

- ARRA: “...stimulate the economy and create and retain jobs”
- SEP: “...reduce energy costs and consumption”
- This effort is not just about measuring compliance, it’s about **improving compliance through**
  - Increased training and awareness
  - Better enforcement and process improvements
  - Increased manpower (trainers and inspectors/evaluators)
- Understand the actual compliance rates resulting in better estimation of:
  - potential energy savings through greater compliance
  - return on investment
- Understand where energy code criteria may need revision to improve implementation and enforcement

# Sample Size

- 44 or more commercial and 44 residential buildings
- Additional sample for commercial and residential renovations
- Distributed randomly across building jurisdictions within each climate zone, based on building starts



# Annual Measurement Requirements

- The ARRA requires annual measurement of progress towards the 90% compliance goal.
  - Use of spot checks to supplement full-scale onsite evaluations
    - Smaller samples to check specific jurisdictions
    - Sample, stop, fix, and sample
    - Spot checks as a tool after 90% is demonstrated
  - Use of process measurements to supplement evaluations
    - Incorporating and leveraging surveys of jurisdictional practices
    - Assistance in implementing surveys
    - Use of existing accreditation services

# How Can Utilities Become Involved?

- Examples of Utility and Utility Group Involvement in Energy Code Adoption, Implementation and Evaluation Activities
  - Utah
  - Nevada
  - Idaho

- Partners
  - Utah State Energy Program
  - Rocky Mountain Power
  - Questar Gas
- Funding Years
  - 2006 to present
- Funding Contribution
  - Cash
- Primary Activities
  - Training and Education
  - Code Adoption
  - Evaluation
  - Technical Assistance

- Training Programs
  - Provided over 44 days of training including sessions on:
    - Commercial IECC
    - Residential IECC
    - ASHRAE 90.1
- Technical Assistance
  - Provided to the building, design and enforcement industry
- Evaluation
  - Implemented the On-site Education Program
- Code Adoption
  - Provided analysis and technical assistance on supporting the adoption of the 2009 IECC/ASHAE 90.1-2007



# Nevada Utility Involvement

- Partners
  - Nevada State Energy Office
  - NV Energy (Formally Sierra Nevada Power and Nevada Power)
- Funding Years
  - 2000 to 2009
- Funding Contribution
  - Cash
  - In-kind
- Primary Activities
  - Training and Education
  - Code Adoption
  - Evaluation
  - Technical Assistance



# Nevada Utility Involvement

- Training Programs
  - Included training sessions on:
    - Commercial IECC
    - Residential IECC
    - ASHRAE 90.1
- Technical Assistance
  - Provided to the building, design and enforcement industry
- Evaluation
  - Nevada Residential Energy Code Baseline Study
  - Implemented On-Site Education Program
- Code Adoption
  - Provided analysis and technical assistance on supporting the adoption of the 2003 and 2006 IECC

- Partners
  - Idaho Energy Code Collaborative
  - Northwest Energy Efficiency Alliance
- Funding Years
  - 2001 to Present
- Funding Contribution
  - Cash
  - In-kind
- Primary Activities
  - Training and Education
  - Code Development
  - Code Adoption
  - Evaluation
  - Technical Assistance

- Training Programs
  - Included training sessions on:
    - Commercial IECC
    - Residential IECC
    - ASHRAE 90.1
    - 3<sup>rd</sup> Party Plan Review Certification
- Technical Assistance
  - Provided to the building, design and enforcement industry
- Evaluation
  - Provided regional evaluations and market evaluations
  - Implemented On-Site Education Program
- Code Development
  - Participated in the IECC Code Development process
- Code Adoption
  - Provided analysis and technical assistance on supporting the adoption of the 2003 to 2009 IECC

# How Utilities Should Get Involved

- Partner with State Energy Programs in Energy Code Deployment
- Look for opportunities to Sponsor Training Events in Underserved Areas
- Provide Design Assistance for Commercial Energy Code Compliance
- Provide Energy Code Plan Review and Inspection for Jurisdictions
- Promote “Above Code” Programs for Residential and Commercial Buildings
- Conduct Surveys and Studies to Determine the Baseline for Energy Codes
- Focus on Achieving a 100% Compliance Rate (Why Stop at 90%?)

# Additional Resources Available...

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## Building Energy Codes Program

[www.energycodes.gov](http://www.energycodes.gov)

Thank You!

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