US DEPARTMENT OF ENERGY
OFFICE OF CODES AND STANDARDS

Building Energy Codes Program

2002 State Grant Summaries

January 2003

Arizona

Background

Arizona is a home-rule state; therefore, codes are adopted and enforced on a local level. Presently the City of Tucson and Pima County are the only jurisdictions that have adopted the 1998 International Energy Conservation Code and are getting ready to adopt the 2000 IECC.

Purpose

The main purpose of this project is to enable a coalition of public agencies, utility companies, public interest groups and building industry associations to improve and expand upon current training and technical assistance programs for both the IECC and the Sustainable Energy Standard (SES).

Project Description

The primary goal of Teaching Energy Conservation (TEC) program is to conserve energy by successfully implementing the new IECC and the locally adopted SES where applicable. The program will continue to update the baseline analysis of recently constructed buildings to determine how well they perform relative to the Model Energy Code and SES

Cost Data

Federal	$100,000
Other	$ 96,233
Total	$196,233

Partners

Tucson Electric Power Company
Southwest Gas Corporation
City of Tucson
Civano
Arizona Builders' Alliance
Southern Association of Home Builders
City of Sierra Vista
Pima County
BOMA of Greater Tucson
Pima Community College
TRICO Electric Cooperative
Town of Sahuarita
American Institute of Architects
Sulphur Springs Valley Electric Coop.
Touchstone Energy
Arizona Energy Engineers

Transferability

Training materials and methods developed will be available to other states.

California

Background

The California Energy Commission, and the Building Industry Institute, the not-for-profit research and training arm of the California Building Industry Association have, since 1995, provided the much needed and desired training on the California Building Energy Efficiency Standards (Title 24) to large production builders in California and Nevada through DOE funding. The Energy Codes are very stringent and complicated and prior to the Building Energy Code Training, compliance was very low -- 75% of builders were out of compliance by at least 7%. Today, for those who have participated in the training, the data indicates that less than 25% are out of compliance, and by less than 1%, resulting in tremendous energy savings. The CEC and BII's cooperative efforts have resulted in new construction protocols, new utility programs, new diagnostic applications, and new cooperative working relationships with additional groups. These groups include local governments, utilities and energy research organizations. Homeowners have saved $2.1 million in energy costs that will continue for the life of the building. Additionally, over 25,000 kW have been saved and will continue to be realized for the life of the home. California's Title 24 building standards exceed the national Model Energy Code by approximately 25%. In regions with a high cooling load the most recent update will take those regional codes to exceeding the Model Energy Code by as much as 50%.

Purpose

To continue to focus on training large production builders in California and Nevada, consisting of classroom and on-site training for 160 individuals, representing 20 builder companies and 5,000 homes.

Project Description

California proposes to continue the builder training programs, in that it provides the opportunity to provide builders with training reflecting the newest updates to the Title 24 standards.

Cost Data

Federal	$100,000
Other	$ 45,813
Total	$145,813

Partners

Building Industry Institute

California Building Industry Association

Transferability

Training materials and methods developed will be available to other states.

Colorado

Background

Promoting energy codes and standards is a challenge in a state with over 360 local jurisdictions, over one third of which are "home rule," and many of which have no building code department at all. This challenge is further intensified by low energy costs and a relatively mild climate. This project addresses that challenge by putting energy codes in the context of better building standards, and promoting them in that context.

Purpose

E-Star Colorado will continue implementing the recommendations proposed by the energy codes advisory groups it convened from Colorado stakeholders, adapting approaches from the experiences gained in the past year. Recommendations include devising a simple but meaningful energy code that is easily understandable and enforceable, and continuing to educate all on the importance of incorporating energy efficiency into building codes and building practices. The objective is to increase the number of jurisdictions with current energy codes, and to improve those building practices which result in better energy efficiency in buildings generally, even in those jurisdictions that do not have current energy codes.

Project Description

Colorado proposes to do the following:

- Provide any necessary support to the Governor's Office of Energy Management and Conservation in their effort to update the values contained in the Colorado Voluntary Energy Standards and Guidelines to reflect ASHRAE 90.1-1999.
- Completion of a report on best practices related to building energy codes and codes implementation in Colorado and nearby states (UT, WY, AZ and NM). Estimate potential energy savings and economic impacts for those states, considering both the 2001 IECC and ASHRAE 90.1-1999.
- Continue education to code officials and builders on the content of the latest energy codes and best practices in how to enforce them.
- Provide technical assistance to local jurisdictions as they seek to adopt or update the latest version of the energy codes, and to builders as they seek to update their product to meet the new energy efficiency standards.

Cost Data

Federal	$125,000
Other	$ 42,004
Total	$167,004

Transferability

Training materials and methods developed will be available to other states.

Florida

Background

Florida with its growing population and building climate has endeavored to have an effective building energy code. Florida's new building code, effective March 1, 2002, provides a single set of documents to direct public and private building throughout the state of Florida. The new code focuses on public safety, includes energy efficiency, and increases local enforcement powers. It also encourages predictability, less time in planning and construction, and a new and consistent way to create and update codes. It includes revised energy compliance software tools to demonstrate energy code compliance, including the new and comprehensive compliance tool EnergyGauge Flacom 2001, the only methodology available for code compliance for most commercial buildings in Florida.

Purpose

The main purpose of the project is to develop the foundation to move Florida to the next generation of higher-standard codes as well as multiple code options, including ASHRAE 90.1-1999 and IECC 2003.

Project Description

Florida proposes to do the following:

- Identify major code changes between the existing Florida Building Code, based on ASHRAE 90.1-1989, and the next generation standards; develop a statement comparing the current Florida standard and ASHRAE 90.1-1999/2001 and IECC 2003; and resolve Florida-specific issues that conflict with the national codes.
- Present major changes to the code to the Florida Building Commission through its Energy Technical Advisory Committee for approval and adoption after considering the concerns of interested parties.
- Modify the structure of the compliance tool to allow inclusion of the simplified method of code compliance utilized by Chapter 8 of the International Energy Conservation Code. Computer-based algorithms for compliance by commercial buildings based on the IECC 2003 will be developed and all tables connected with the simplified component procedure will be categorized, including those for the envelope, mechanical systems, lighting, and water heating compliance.
- Develop training materials to include electronic training cards within the program.

Cost Data

Federal	$50,000
Other	$33,485
Total	$83,485

Partners

Florida Solar Energy Center
Buildings Research Division
1679 Clearlake Road
Cocoa, FL 32922
fsec.usc.edu
(321) 638-1410; fax:(321) 638-1439
Muthusamy V. Swami, Program Director
swami@fsec.ucf.edu

Transferability

Training materials and methods developed will be available to other states.

Hawaii

Background

In 2001, the statewide total number of residential building permit applications was about 8,260. With the state showing economic recovery, Hawaii anticipates an increase in home building activity in future years. This project hopes to continue and expand the unique partnerships developed with the private sector, community groups and government agencies to design and build energy efficient homes. This will be accomplished by promoting the implementation of a very recent Ordinance in the City and County of Honolulu (which contains 80 percent of Hawaii's population), mandating R-19 roof insulation. The new Ordinance represents a major part of Hawaii's Residential Model Energy Code, which is equivalent to ASHRAE Standard 90.2. The Ordinance was proposed in 1994 and passed in 2001.

Purpose

The main purpose of this project is to enable a coalition of public agencies, utility companies, public interest groups and building industry associations to improve and expand upon current training and technical assistance programs for both the IECC and SES.

Project Description

Hawaii proposes to do the following:

- Continue working with Neighbor Island Government Housing Agencies and Nonprofit Organizations to implement the REScheck software as well as Hawaii BuiltGreen Program.
- Expand partnership with Architects, Builders, Developers, Realtors, Lenders, and Neighbor Island County Elected and Building Officials and by promoting the Hawaii BuiltGreen and roof insulation Ordinance through the BIA.
- Initiate a strong Consumer Education Program.
- Evaluate the effectiveness of education and Outreach Programs.
- Meet Federal reporting and presentation requirements.
- Innovative Technology Transfer and Advanced Code Elements.

Cost Data

Federal	$ 30,000
Other	70,000
Total	$100,000

Partners

Hawaii Electric

Transferability

Training materials and methods developed will be available to other states.

Idaho

Background

On March 8, 2001 the Governor signed an Executive Order appointing the Division of Building Safety as the lead Agency for the development, promotion, implementation and enforcement of energy codes for commercial and residential buildings. Idaho's adoption of the IECC was signed by the Governor in March 2002 and will come into effect in January 2003.

Purpose

The main purpose of this project is to enable the State of Idaho, Division of Building Safety to work with Idaho cities and counties. State building managers, and multiple stakeholders to build strategies for successful implementation of the International Energy Conservation Code in Idaho during the first year of its adoption.

Project Description

Idaho proposes to do the following:

- Develop a consensus-based implementation plan for transition into the IECC.
- Provide on and off-site technical assistance to cities and counties, and in-house plan review for residential and non-residential buildings.

Cost Data

Federal	$100,000
Other	47,600
Total	$147,600

Partners

Northwest Energy Efficiency Alliance

State of Washington

State of Montana

State or Oregon

Transferability

Training materials and methods developed will be available to other states.

Iowa

Background

In 1994, Iowa adopted the 1992 Model Energy Code (MEC) and the codified version of American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE) 90.1-1989 as the statewide building energy code. However, local jurisdictions may or may not adopt the state code depending on their knowledge of the code, financial and personnel resources, community level of support and other factors. The Iowa Department of Natural Resources (DNR) established the Iowa Building Energy Code Education (BECE) Program in 1996 to educate Iowans about the energy codes and the compliance and enforcement of these codes. The program has trained and educated building officials, homebuilders, insurance industry representatives, real estate agents, lenders and community leaders. In the ongoing BECE Phase VI, the Department is working with the Iowa State Building Commissioner and other stakeholders to update the state building energy code to the 2000 International Energy Conservation Code (IECC). Five local jurisdictions in Iowa have already adopted the 2000 IECC for their building energy code and are actively enforcing this code.

Purpose

The purpose of this project is to educate Iowa communities, local and state elected officials about the advantages and benefits of adopting and enforcing building energy codes.

Project Description

Iowa proposes to do the following:

- Develop a survey to determine which communities have adopted and enforce building energy codes.
- Identify the barriers to adopting and enforcing codes.
- Develop a building energy code adoption and enforcement tool "Iowa Guide to Building Energy Codes."
- Develop case studies including comparisons of the residential energy usage and cost in homes that conform with and do not conform with the 2000 IECC to show economic benefits of code compliance.
- Conduct five regional workshops for community representatives.
- Encourage communities and elected officials to participate in the adoption and enforcement of building energy codes.
- Help communities in their adoption and enforcement of building energy codes.

Cost Data

Federal	$ 55,000
Other	67,300
Total	$122,300

Partners

Iowa Association of Municipal Utilities (IAMU)

Iowa League of Cities (ILOC)

Iowa Building Code Consultants

Building Code Assistance Project (BCAP)

International Conference of Building Officials (ICBO)

Iowa Association of Electric Cooperatives

Transferability

Training materials and methods developed will be available to other states.

Kansas

Background

The Kansas Corporation Commission's Building Energy Codes and Standards Program began in 1996 with state funds and has been substantially enhanced through DOE's Building Energy Codes Program.

The rapid move by local code jurisdictions to the *IBC-2000* and associated *IECC 2000* creates a "Teachable Moment" for achieving locally approved and enforced energy codes. Recent requests for training from builder groups and code officials document this trend.

Purpose

The goal of the project is to achieve actual energy performance of new residential and commercial buildings in Kansas equal to or greater than that would result from compliance with the 2000 International Energy Conservation Code (IECC).

Project Description

Kansas proposes to do the following:

- Identify new city and county jurisdictions adopting or considering the *IECC 2000.*
- Provide testimony in support of code adoption at city and county code meetings.
- Participate in building code committees and groups.
- Deliver training on the code compliance paths.

Cost Data

Federal	$ 59,000
Other	$ 20,734
Total	$ 79,734

Transferability

Training materials and methods developed will be available to other states.

Kentucky
(multi-state)

Background

The need for training on upgraded building energy codes is occurring at a critical time for each of the four states (North Carolina, Tennessee, Kentucky, and Georgia). Three of the states have adopted a version of the IECC. There is a substantial need for training the many organizations involved in the construction industry so that the transition to the new codes is both smooth, successful, and timely.

Purpose

The main purpose of the project is for Kentucky to coordinate a four-state effort to provide updated training materials, workshops, and outreach on residential and commercial energy codes. The project will provide a readily accessible, innovative training tool for advancing energy codes among the many organizations involved in the construction industry. It will also provided training and information in a wide variety of frameworks, including consumer education, builder and designer workshops, media articles, widespread distribution of multi-media CDs, and an enhanced Web Page with complete information on energy codes in each of the four states and a selection of on-line multi-media programs.

Project Description

Kentucky proposes to do the following:

- Hold sixteen, 2-hour seminars at building supply stores on the key steps to meeting the energy code using REScheck.
- Conduct a series of 14 one-day workshops in the four states participating on meeting the energy code as well as ways to control moisture, prevent mold and other indoor air quality problems.
- Conduct one commercial workshop in each of the four participating states with an emphasis in Tennessee and Kentucky on promoting the commercial energy code with code officials and building designers.
- Develop an active information program on the energy codes in each of the four participating states through press releases showing the potential energy savings from code compliance.
- Promote the use of the web page during the training programs and the public outreach program.

Cost Data

Federal	$150,000
Other	$ 62,671
Total	$212,671

Partners

Kentucky Division of Energy

Southface Energy Institute, Atlanta, Georgia and Boone, North Carolina

Georgia Environmental Facilities Authority

Georgia Department of Community Affairs

Georgia Power Company

Greater Atlanta Home Builders Association

Earthcraft Homes

Transferability

Training materials and methods developed will be available to other states.

Maryland

Background

States in the Northeast continue to update and implement their residential building energy codes and have identified residential energy code outreach and training as a priority for the region. In an effort to address this need, the Department of Energy funded the development of a residential energy code training curriculum and workshops under the Northeast States Residential Energy Codes Support Project. This first phase was implemented by the Vermont Department of Public Service in 2001-02.

Purpose

This project responds to the continuing needs and interests of the Northeast states as expressed through the Northeast Energy Efficiency Partnerships, Inc. (NEEP) Regional Energy Codes Project Advisory Committee. The Maryland Energy Administration will work with NEEP, the Pennsylvania Housing Research Center (PHRC), and the northeast states, utility and industry partners to further develop residential energy code training curriculum and materials in response to partner needs.

Project Description

Maryland proposes to do the following:

- Develop and deliver a new training curriculum.
- Conduct train-the-trainer workshops and advise the Northeast states to help them develop and deliver advanced residential energy code training workshops.
- Conduct advanced residential energy codes workshops in Maryland and Pennsylvania.
- Assist Northeast states to establish sustainable funding sources.
- Assist Northeast states to develop evaluation plans.
- Share information with other interested states.

Cost Data

Federal	$150,000
Other	$ 60,464
Total	$210,464

Partners

Northeast Energy Efficiency Partnerships, Inc.

Pennsylvania Housing Research Center

Transferability

Training materials and methods developed will be available to other states.

Minnesota

Background

Minnesota currently has the most advanced residential energy code in the nation. The Minnesota energy code was last update in July 1999 for commercial, industrial, and high-rise residential buildings, and April 2000 for residential buildings other than high rise.

Purpose

To provide a solid technical support base to amend the foundation insulation system rules in Minnesota Building Code. To achieve building foundation thermal energy performance meeting or exceeding that specified in the 2000 International Energy Conservation Code (IECC).

Project Description

Minnesota proposes to do the following:

- Provide technical support to develop recommendations to improve code requirements for cold climate foundation insulation and vapor retarders.
- Provide education for power vented water heater installation.
- Determine code compliance for residential attic insulation installation.
- Initiate work to further upgrade the Minnesota Energy Code.

Cost Data

Federal	$65,000
Other	$ 61,605
Total	$ 126,605

Partners

Minnesota Department of Administration

University of Minnesota

Builders Association of Minnesota

Minnesota Department of Commerce

Tranferability

Training materials and methods developed will be available to other states.

Nebraska

Background

The adoption of energy codes in Nebraska occurs at both the state and the local level with the state building codes being adopted by the legislature. Local code jurisdictions can adopt and enforce their own building codes as long as those codes meet or exceed the minimum standards set by the state code. The current state energy code is the 1983 Model Energy Code (MEC); however, there are over 50 local code jurisdictions throughout the state which enforce various local energy codes that are equal to or exceed the 1983 MEC. These local codes vary from the 1983 MEC to the 2000 International Energy Conservation Code (IECC) and may include locally modified versions of one of the national code standards.

Purpose

To encourage the adoption of the next generation energy codes statewide, Nebraska needs state specific data on what current energy codes are in effect, what current building practices are regarding the implementation of the local and state codes, and the cost-effectiveness of the adoption of the next generation building codes when compared to current building practices and code status. The Nebraska Energy Office proposes to develop persuasive Nebraska specific materials that will be used to further the adoption of the next generation energy codes by the Nebraska Legislature and/or local code jurisdictions.

Project Description

Nebraska proposes to do the following:

- Establish the Nebraska Energy Codes Team.
- Survey the State of Nebraska to determine the local energy codes in effect, the current building practices and the types and sizes of houses that are being built and develop a database.
- Complete an analysis evaluating the energy savings, construction costs and economic impacts/benefits associated with updating the current energy code.
- Develop a final report that emphasizes the potential energy savings and economic impacts/benefits to the state to assist legislators and local elected officials in the adoption of the next generation energy codes.
- Provide technical assistance to legislators, local elected officials and other interested parties to adopt the next generation energy codes.

Cost Data

Federal	$100,000
Other	$ 37,245
Total	$ 137,245

Transferability

Training materials and methods developed will be available to other states.

New Hampshire

Background

The New Hampshire Residential/Small Commercial Energy Code was adopted in September 1998 and became effective February, 1999. It is essentially an adaptation of the 1995 Model Energy Code. (Subsequent to this grant being approved, New Hampshire adopted the IECC 2000 as the statewide residential energy code). New Hampshire also adopted ASHRAE/IESNA Standard 90.1 - 1989 in July 1993 for commercial buildings in excess of 4,000 square feet.

Purpose

The project proposes to facilitate and strengthen the adoption of energy code enforcement practices in New Hampshire.

Project Description

This project will:

- Continue the delivery of workshops designed to educate the building community and local code officials on compliance and building practices;
- Continue partnership activities with regional and multi-state energy codes programs such as NEEP's Regional Building Energy Codes Support project.

Cost Data

Federal	$30,000
Other	$15,000
Total	$45,000

Partners

NEEP

Transferability

Training materials and methods developed will be available to other states.

New York

Background

The 2002 New York State Energy Conservation Code was approved on March 6, 2002. It is based on the 2000 IECC and supplements with state modifications, including commercial code for ASHRAE 90.1-1999. Effective date of New York?s energy code was July, 2002.

Purpose

The purpose of the project grant is to (1) provide training on the revised New York Energy Code; and (2) provide code enactment and enforcement assistance to New York City. The trainings will seek to educate both residential and commercial markets in the code enforcement, building, and design community.

Project Description

The trainings will build upon the Multi-State Residential Energy Code Support Project (managed by NEEP) that develops curricula and conducts builder training. New York trainings will also leverage NYSERDA's extensive marketing efforts through the Energy Star Labeled Homes Program.

Cost Data

Federal	$100,000
Other	$140,000
Total	$240,000

Partners

NYSERDA (applicant)

New York State Department of State

New York Builders Association

Building Codes Assistance Project (BCAP)

Northeast Energy Efficiency Partnerships (NEEP)

Building Owners and Managers (BOMA)

Various Industry representatives (Trane, Owens Corning, Dow, Johnson Controls, Honeywell)

Transferability

Training materials and methods developed will be available to other states.

Oregon

Background

Oregon has a mandatory state-developed residential and commercial energy code that exceeds the 1995 Model Energy Code and ASHRAE/IESNA Standard 90.1-1989.

As part of Oregon's response to the recent energy crisis, Governor John Kitzhaber asked the Office of Energy to look at improving Building Energy Codes. In 2002 Oregon submitted 57 codes upgrades. The proposals will go through the formal review process.

Purpose

The main purpose of this project is to enable the State of Oregon to help cover training expenses for both residential and non-residential code changes

Project Description

Oregon proposes to do the following:

- Develop and update written materials concerning Oregon's Energy Code for Building Code Officials and the marketplace
- Provide training and educational opportunities to building code officials, builders, designers, other stakeholders, and the public in general
- Cooperate in planning and establishing consistent training programs with other states in the region

Cost Data

Federal	$100,000
Other	75,000
Total	$175,000

Partners

Northwest Energy Efficiency Alliance

State of Washington

State of Montana

State or Idaho

Transferability

Training materials and methods developed will be available to other states.

Pennsylvania

Background

The Commonwealth of Pennsylvania enacted Act 45 in 1999, establishing the International Code Council (ICC) 2000 as the Uniform Construction Code for Pennsylvania. The final publication of regulations to implement Act 45 is expected to occur in 2003. The law requires energy certification of code officials.

Purpose

The purpose of this project is to provide continued assistance needed to fund training for code officials, builders, architects, engineers and other stakeholders, and to conduct educational outreach to the general public.

Project Description

Pennsylvania proposes to do the following:

- Deliver training programs previously developed through previous SEP grants.
- Develop targeted training for residential and commercial energy code compliance using a multidisciplinary approach to training to foster a commonly held understanding of the codes, their purposes and implementation strategies.
- Identify and train additional instructors, primarily code officials and design professionals.
- Develop and distribute energy code resources and reference materials to assist builders, design professionals and code officials with energy code provisions, including field inspection and compliance materials for use by code officials.
- Provide general coordination of general building code training efforts through the Pennsylvania Code Training Consortium (CTC).

Cost Data

Federal	$100,000
Other	$ 33,333
Total	$133,333

Partners

Pennsylvania Department of Labor and Industry

Pennsylvania Housing Research Center

International Code Council

Transferability

Training materials and methods developed will be available to other states.

Rhode Island

Background

Since 1998, the Regional Building Energy Codes Project has been an ongoing NEEP initiative funded in part by the U. S. Department of Energy through grants from the Rhode Island State Energy Office. NEEP's sponsors in the Northeast also fund the Project through cost share.

Purpose

The purpose of the Northeast Regional Energy Codes Project is to steadily increase energy efficiency in new buildings, additions, and alterations in the Northeast region of the United States through effective building energy code programs.

Project Description

Rhode Island proposes to do the following:

- Assist at least six states to update residential and commercial building energy codes to meet or exceed ASHRAE 90.1 - 1999 and 2000 IECC with 2001 supplement based on current practices;
- Inform national model building codes and standards to reflect needs of the Northeast, integrated building performance, indoor air quality, and best practices;
- Integrate building energy code development and implementation with voluntary ratepayer-funded energy efficiency programs and efforts to improve building design and energy performance in at least six states;
- Enhance resources to support state building energy code development and implementation.
- Establish a multi-year evaluation plan for the regional building energy code project in coordination with states and other stakeholders;
- Facilitate iter-state discussions of code interpretation and enforcement issues to encourage consistency;
- Build awareness of the public benefits of updated building energy codes and improved implementation.

Cost Data

Federal	$180,000
Other	$161,641
Total	$341,641

Partners

Northeast Energy Efficiency Partnerships (NEEP)

New Buildings Institute (NBI)

Northeast by Northwest

Transferability

Training materials and methods developed will be available to other states.

Texas

Background

Following the passage of Senate Bill 5 by the 77th Texas Legislature in 2001, SECO changed the scope of promoting the voluntary adoption of energy code with a successful implementation of residential energy code workshops, providing education and outreach statewide. Under past SEP grants, SECO contracted with the Energy Systems Laboratory/Texas Engineering Experiment Station of the Texas A&M University (ESL) and Sustainable Living Alliance (SLA) to provide 27 workshops on Chapter 11 of the 2000 International Residential Code (IRC) and Chapter 5 and Chapter 6 of the 2000 International Energy Conservation Code (IECC), including the 2001 Supplement. ESL and SLA provided a total of 30 workshops with more than 2,000 attendees.

Purpose

Because there is also a need for training and education in the commercial energy code, which is included in Chapter 7 and Chapter 8 of the IECC, SECO is changing the scope (but not the intent) of the original proposal. Now, instead of providing both residential and commercial energy code workshops, this proposal will support the *successful implementation* of the commercial energy code through education and outreach of the new American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) Standard 90.1-2001.

Project Description

Texas proposes to do the following:

- Arrange with ASHRAE to deliver 3 two-day trainings on ASHRAE Standard 90.1-1999/2001, targeting architects and engineers.
- Develop a one-day training on commercial code compliance on ASHRAE Standard 90.1-1999/2001, targeting state agencies, higher education, local government, and school districts, after participating in the ASHRAE "Train the Trainer" program.
- Deliver commercial energy code training in five non-attainment and affected areas of Texas: Houston, Dallas/Ft. Worth, El Paso, Austin and Corpus Christi.
- Participate in code development activities of the International Code Council and ASHRAE.
- Report summary on progress and evaluation of effectiveness including a final report summarizing all work completed under this project.

Cost Data

Federal	$100,000
Other	$ 33,362
Total	$ 133,362

Transferability

Training materials and methods developed will be available to other states.

Utah

Background

In January of 2002, Utah adopted the 2000 IECC. The adoption of this new code for Utah necessitates greater education and awareness training detailing the importance of energy efficiency in the housing industry throughout the state. The Utah Energy Office (UEO) in cooperation with the Utah Energy Conservation Coalition (UECC), the state & local chapter(s) of the ICBO, the University of Utah Engineering and Experimental Station, as well as the Utah Division of Occupational and Professional Licensing (overseeing building codes and standards in the state) plans to expand and strengthen the educational training and understanding of the newly adopted residential energy code in Utah.

Purpose

This project will address the need of supplying up-to-date readily accessible and easily understood resources and code compliance tools for the IECC 2000. This is to be accomplished through state-wide specialized group and one-on-one code training and technical assistance workshops as well as seminars to the building construction industry, design professionals, product manufacturers, code officials, the home buying public, as well as other key allies involved in the housing and energy industries.

Project Description

Utah proposes to do the following:

- Develop a new code compliance tool ('Field Guide') and code specific resources (Web based) for Utah -- specific to the 2000 IECC.
- Through comprehensive training workshops and seminars, work to increase building code officials' and the housing industry's understanding of the benefits associated with advanced energy design and residential construction practices that enable builders to meet the provisions of the 2000 IECC without significantly increasing construction costs.
- Provide training and technical support, resources, and user friendly "tips & tools" for all stakeholders on implementation, enforcement, and compliance with the 2000 IECC.

Cost Data

Federal	$ 50,000
Other	$ 20,000
Total	$ 70,000

Transferability

Training materials and methods developed will be available to other states.

Virginia

Background

The Commonwealth of Virginia's Universal State Building Code (USBC) currently mandates 1995 Model Energy Code (MEC). The Department of Housing and Community Development is in the process of drafting new regulations for the USBC. These regulations will adopt the 2000 International Code Council (ICC) family of codes, including the International Energy Conservation Code (IECC) as the new state building code.

Purpose

The purpose of this project is to enable code enforcers to achieve compliance in a more effective manner and provide builders, design professionals and contractors the skill sets required in practicing advanced, energy efficient design and construction. The ultimate goal and results of this project will be for consumers to be the prime benefactors from these seminars through ownership and operation of properly designed and constructed energy efficient homes and buildings.

Project Description

Virginia proposes to do the following:

- Conduct a series of statewide seminars for code officials, registered design professionals, builders and contractors.
- Offer comprehensive instruction on the major differences between the 1995 MEC and the 2000 IECC.

Cost Data

Federal	$15,000
Other	$ 5,000
Total	$20,000

Partners

Building Officials and Code Administrators International

Transferability

Training materials and methods developed will be available to other states.

Washington

Background

The Washington State Energy Code was revised to improve the energy efficiency of new or renovated residential buildings by increasing insulation levels and improving the quality of windows.

In July 2002. a substantial upgrade to the residential and non-residential sections of the code went into effect. These upgrades mandate increases in the envelope requirements for residential construction and the adoption of ASHRAE 90.1-1999 Equipment Standards, new prescriptive lighting fixtures and controls, and minimum requirements for commissioning of HVAC and lighting systems.

Purpose

The main purpose of this project is to support implementation of Washington State Energy Code upgrades that take effect in 2002 and establish a broader consistency in Northwest code enforcement and builder training programs.

Project Description

Washington proposes to do the following:

- Support Code implementation activities through participation on the Building Code Council
- Provide code compliance training
- Participate in the Northwest regional collaboration on code enforcement and builder training programs

Cost Data

Federal	$100,000
Other	75,847
Total	$175,847

Partners

Northwest Energy Efficiency Alliance

State of Oregon

State of Montana

State or Idaho

Transferability

Training materials and methods developed will be available to other states.

Wisconsin

Background

The Wisconsin Department of Administration, Division of Energy, has managed energy programs since the inception of federal funding for energy conservation. It is currently managing a statewide Wisconsin Focus on Energy program using public benefits funding. The Division of Energy has been preparing itself for managing this funding since 1995 with the development of program management structure concepts. The programs deal with all types of building facilities in the state both new and existing.

Purpose

Wisconsin has recently updated their energy code and adopted current IECC requirements. The state will focus training for building inspectors and plan reviewers. IECC training will be provided to commercial building code enforcement staff and IECC technical assistance will be made available. The overall goal is to move Wisconsin's new construction and remodeling markets to optimal levels of energy efficiency while providing quality construction that is safe, healthy, durable, comfortable, and affordable.

Project Description

Wisconsin proposes to do the following:

- Provide training on IECC 2003 commercial code for code officials and practioners.
- Prepare for adopting the IECC 2003 commercial code.
- Develop curriculum for training that combines residential energy codes, building science, and Wisconsin ENERGY STAR Homes.
- Provide a market assessment of residential new construction in the state.

Cost Data

Federal	$50,000
Other	$ 68,750
Total	$118,750

Partners

Wisconsin Department of Commerce

Energy Center of Wisconsin, Public Benefits

PA Government Services, Inc., Public Benefits