

COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES



FINAL REPORT TO THE GOVERNOR
AND THE IOWA GENERAL ASSEMBLY
SUBMITTED IN COMPLIANCE WITH IOWA CODE SECTION 103A.27

JANUARY 1, 2011

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Iowa Commission on Energy Efficiency Standards and Practices

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Amy Infelt, Professional Engineer, Design Engineers P.C.

Kevin Nordmeyer, Registered Architect, Iowa Energy Center

Larry DeBuse, Residential Builder, DeBuse Homes

Michael Carroll, Commercial Builder, Hansen Company

James Strohman, County Supervisor, Story County

Kimberly Willer, Investor Owned Utility, MidAmerican Energy

Steve Carroll, Rural Electric Cooperative, Linn County REC

Erin Buchanan, Municipal Utility, Cedar Falls Utilities

Phil Delafield, Building Official, City of Des Moines

Lynnae Hentzen, Residential Consumer, Center on Sustainable Communities

Krista Capp, Commercial Consumer, Hubbell Realty

Initial Appointees:

Kathy Draper, P.E., Professional Engineer, Terrus Realty

Diane Johnson, Municipal Utility, Waverly Power and Light

Iowa Department of Public Safety Staff:

Michael Coveyou, Planning and Research Administrator

Brian Bishop, Construction/ Design Engineer

EXECUTIVE SUMMARY

Senate File 2386 (2008 Iowa Acts, Chapter 1133) created the Commission on Energy Efficiency Standards and Practices. The Commission was established in 2008. The legislation required that the State Building Code Commissioner, or Commissioner's designee and the Director of the Office of Energy Independence, or the Director's designee serve on the Commission. All other commission members were appointed by the State Building Code Commissioner. The legislation directs the Commission on Energy Efficiency Standards and Practices to submit a report to the Governor and the Iowa General Assembly by January 1, 2011. The report is to include the findings and recommendations for new energy efficiency standards, specifications, and guidelines for existing and newly constructed buildings in Iowa. The report will also contain findings and recommendations for the establishment of incentives for energy efficient construction projects and the adoption of a statewide energy efficient building labeling or rating system.

As directed by 2008 Iowa Acts Chapter 1133, the Commission on Energy Efficiency Standards and Practices, met with a diverse group of stakeholders to seek input on energy efficient standards and practices. The list of stakeholders included individuals from both the public and private sectors. The list of those providing input to the Commission is as follows:

- Stakeholders providing input to Commission on Energy Efficiency Standards & Practices
 - Iowa League of Cities
 - Iowa State Associations of Counties
 - Cenergy – Energy Auditing Firm
 - Office of Consumer Advocate
 - Iowa Utilities Board
 - Iowa Department of Public Health
 - Iowa Landlord Association
 - Iowa Department of Transportation
 - Iowa Department of Human Rights- Community Action Division
 - Dalhoff & Associates – Iowa Weatherization Program

The Commission was constituted during September, 2008 and met for the first time during October of that year. Recognizing that the charge given to the Commission was an ambitious one, the Commission settled initially on a schedule of all day meetings one day every other month. During early 2010, as the Commission neared the end of its life, monthly meetings were held, in order to allow the Commission to consider as wide a range of information relevant to promoting energy conservation and efficiency as possible.

In all, the Commission held fourteen meetings. Presentations were made to the Commission by a wide variety of speakers. Commission agenda, minutes, and other material from the Commission are available for inspection at the Commission Web site:

<http://www.dps.state.ia.us/fm/building/energy/ceesp/index.shtml>.

Summary of Recommendations

One of the main objectives of the Commission was to develop recommendations regarding energy efficiency standards for the construction of buildings, incentives to promote energy efficient construction projects, and recommendations regarding the implementation of a building labeling/ rating system for energy efficient buildings. These recommendations represent actions that can be taken to promote energy efficient standards and practices to reduce energy usage and associated building operating costs.

Recommendations for energy efficiency through the adoption and enforcement of building energy codes

1.1 The State Building Code Commissioner and Building Code Advisory Council should continue to adopt succeeding editions of the International Energy Conservation Code (IECC), provided that amendments may be needed to address conditions specific to Iowa.

1.2 Code-based improvements in energy efficiency beyond the current edition of the IECC should be sought in two ways:

- a) Iowa officials involved in the code adoption process through the International Code Council should continue to support aggressive improvements in succeeding editions of the IECC. This would facilitate improvements in building energy efficiency based upon code compliance without placing the construction industry in Iowa at a comparative economic disadvantage.
- b) The Iowa General Assembly and Executive Branch agencies engaged in constructing buildings or facilities or financing such construction, both new construction and renovation, should consider extending the applicability of sustainable design requirements adopted by the Building Code Commissioner as part of the State Building Code and implement energy efficiency requirements that exceed the energy code.

1.3 Adoption of various energy efficient construction requirements and the enforcement of those requirements should be as consistent as feasible at the state level and at the local level.

1.4 The State Building Code Bureau should develop a model protocol for energy code inspections and plan reviews.

1.5 A menu of alternative approaches to energy code enforcement should be available to local jurisdictions at their discretion

1.6 The State Building Code Bureau should continue to develop enhanced technical capacity in energy code issues, including the ability to provide interpretations of energy code provisions to code officials.

1.7 The State Building Code Bureau should develop a database of energy and related building code enforcement information for political subdivisions, including codes adopted and areas enforced.

1.8 The Building Code Commissioner should be given authority to develop and establish standards for third party energy code enforcement and to contract with third party providers for energy code enforcement.

1.9 The General Assembly should clarify the intent of requirements for life cycle cost analysis for projects to allow for consideration of total building energy use and total cost of building ownership.

1.10 Following the recommendations of the life cycle costs analysis should be required for all building and facilities constructed or financed by a public entity, not just state-owned facilities.

Recommendations for energy efficiency through the establishment of incentives to encourage cost-effective energy efficient construction projects, measures, and improvements

2.1 Develop a comprehensive analysis of any gaps in financing and incentives for energy efficient construction

2.2 Compile a menu of optional energy efficiency financing alternatives, including interest buy-downs, on-bill financing, special assessments, loan loss reserves, and loan payments from energy costs saved should be provided as feasible in both the commercial and residential sectors to encourage energy efficient construction to meet or exceed the energy code in existing structures and to exceed the energy code in new construction

2.3 Political subdivisions should be authorized to provide loans for energy efficiency improvements, with repayment through special property tax assessments, if they wish to do so.

2.4 Offer financial incentives for verifiable energy efficient construction projects, measures, and improvements implemented at premises in Iowa that use propane or fuel oil for heating.

2.5 Energy efficiency programs and initiatives should continue and expand the availability of incentives that encourage upgrading existing building components to comply with or exceed current energy code requirements.

2.6 Any tax credits, deductions, or refunds offered for energy efficient construction, measures, and improvements should meet the following criteria:

- a. Stability, reliability, predictably
- b. Sunset provisions should be no less than 5 years
- c. Participation of rental properties should be facilitated.
- d. Self Supporting Municipal Improvement Districts and tax abatements should be allowed for energy efficiency improvements;
- e. Encourage energy efficiency improvements in Tax Increment Financing Districts.
- f. Promote verifiable and cost-effective energy efficiency construction projects, measures, and improvements that exceed the energy code and minimum efficiency requirements.

Recommendations for promoting energy efficiency through training and education

3.1 Develop comprehensive inventory of existing education programs related to energy efficient building construction and operations

3.2 Develop symposium to encourage and assist in enhancing coordination of education related to energy efficient construction and operations.

3.3 Training and education in energy efficient construction and marketing of energy efficiency should be enhanced and provided to all those involved in building construction and operations, from design professionals through building operators with an emphasis on builders, realtors, appraisers, and lenders.

3.4 Education of code officials on the existence and scope of the energy code should be provided. Training on the content and enforcement of the energy code should be provided at no or very low cost to code and other government officials.

3.5 The State of Iowa should lead by example by educating all building occupants in state buildings about the impact of personal appliances and occupant behavior on energy consumption and costs.

3.6 Existing efforts by utilities to develop building occupant awareness of energy efficiency should be enhanced and should be supported by the state.

3.7 Curricula at each level of formal schooling should reflect energy efficiency and its importance whenever appropriate.

3.8 Building energy consideration should be reflected in all curricula related to building construction.

Recommendations for energy efficiency through licensing and certifications of industry professionals

4.1 Certification of energy code enforcement officials should be required, using existing national standards.

4.2 The building operator certification program should be facilitated and encouraged, and recognized by public entities, whose building operators should be encouraged to obtain certification.

4.3 The State of Iowa should implement requirements that will result in an operator of each major state buildings being certified.

4.4 Certification of HVAC installers in proper installation of energy efficient equipment should be encouraged and promoted and should be required for installers of equipment using public funds or receiving incentives, including utility rebates.

Recommendations for additional items to advance energy efficiency standards and practices

5.1 Apply energy code to renovation and remodeling of one and two family residences.

- 5.2 Require more detailed disclosure of energy use in buildings at time of listing.
- 5.3 Establish benchmarking of energy use in all publicly owned buildings in the state, and establish program to allow communities to require benchmarking of all buildings within a community.
- 5.4 Support and incentives should be developed for political subdivisions for code enforcement and compliance.
- 5.5 Commissioning of new multi-family residential buildings, commercial buildings, and retro commissioning of major existing buildings should be encouraged, through incentive programs.
- 5.6 Commissioning of new major state buildings should be required.

After two years of studying new and existing policies, standards, and practices of efficient energy usage in the built environment, the Commission on Energy Efficiency Standards and Practices believes that each of these recommendations deserves action by the Governor, General Assembly, executive branch agencies, and other stakeholders.

The appendices contain agendas, meeting minutes, and correspondence received by the Commission.

Final Report of Commission on Energy Efficiency Standards and Practices

I. Legislative Overview

The Commission on Energy Efficiency Standards and Practices was established by the Iowa General Assembly in legislation enacted in 2008 (2008 Iowa Acts, Chapter 1133; language codified in Iowa Code section 103A.27). The Commission was established to conduct a two-year study of promotion of energy efficiency in buildings in Iowa, including, but not limited, building energy codes and their enforcement. The legislation, which took effect July 1, 2008, provided that the State Building Code Commissioner would chair the Commission, that the Office for Energy Independence would be represented and that 11 other members, appointed by the Building Code Commissioner to represent specific constituencies with particular interests in energy efficiency, would complete the Commission membership. The legislation outlined the duties of the Commission to evaluate energy efficiency standards. Their duties included the following:

Evaluate energy efficiency standards applicable to existing or newly constructed residential, commercial, and industrial buildings and vertical infrastructure at the state and local level and make suggestions for their improvement and enforcement. The evaluation of energy efficiency standards shall include but not be limited to a review of the following:

1. The reduction in energy usage likely to result from the adoption and enforcement of the standards
2. The effect of compliance with the standards on indoor air quality.
3. The relationship of the standards to weatherization programs for existing housing stock and to the availability of affordable housing, including rental units.

Additionally, the Commission was tasked with developing recommendations for new energy efficiency standards, incentives for energy efficient construction, and statewide energy efficiency building labeling or rating system for residential, commercial, and industrial buildings or complexes. The complete list of recommendations required by the legislation is as follows:

- a) Develop recommendations for new energy efficiency standards, specifications, or guidelines applicable to newly constructed residential, commercial, and industrial buildings and vertical infrastructure.
- b) Develop recommendations for the establishment of incentives for energy efficiency construction projects which exceed currently applicable state and local building codes.

- c) Develop recommendations for adoption of a statewide energy efficiency building labeling or rating system for residential, commercial, and industrial buildings and complexes.

The Commission was also charged with obtaining input from individuals, groups, associations, and agencies in carrying out the duties outlined by the legislation. The legislation asked the Commission to seek input from the Iowa League of Cities, the Iowa Landlord Association, the Department of Transportation, the Department of Public Health, and the Division of Community Action Agencies of the Department of Human Rights.

The Commission was constituted during September, 2008 and met for the first time during October of that year. Recognizing that the charge given to the Commission was an ambitious one, the Commission settled initially on a schedule of all day meetings one day every other month. Two of the original appointees to the Commission resigned during the life of the Commission. Replacements were filled in the same manner as the initial appointees, as set forth by the legislation. During early 2010, as the Commission neared the end of its life, monthly meetings were held, in order to allow the Commission to consider as wide a range of information relevant to promoting energy conservation and efficiency as possible.

In all, the Commission held fourteen meetings. Presentations were made to the Commission by a wide variety of speakers. Commission agenda, minutes, and other material from the Commission are available for inspection at the Commission Web site:

<http://www.dps.state.ia.us/fm/building/energy/ceesp/index.shtml>.

II. Profile of Iowa's Energy Usage

Energy use has been growing worldwide, nationally, and in Iowa. Coupled both with costs which have risen substantially over time and with the realization that much of the energy used in Iowa as elsewhere is derived from materials which exist in finite quantities, this has produced widespread interest in conserving available energy resources. A primary pathway to such conservation is the institution of efficiencies in energy production and use. There is general, although not universal, agreement that conserving energy and using it efficiently are imperative, given that many energy sources are finite and non-renewable. Further, it is clear that energy usage to operate buildings is a particular promising area in which to focus efforts to conserve energy and to use it more efficiently.

The profile of annual energy use in Iowa looks as follows:

Total Energy Usage per capita: 472 million Btu

Total Energy Usage: 1,414 trillion Btus

Total Energy Usage- Residential Sector: 249,139 billion Btus

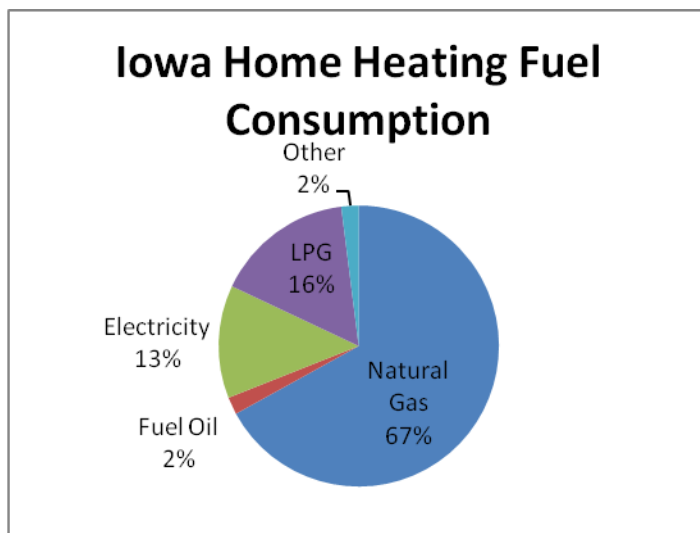


Fig 1.

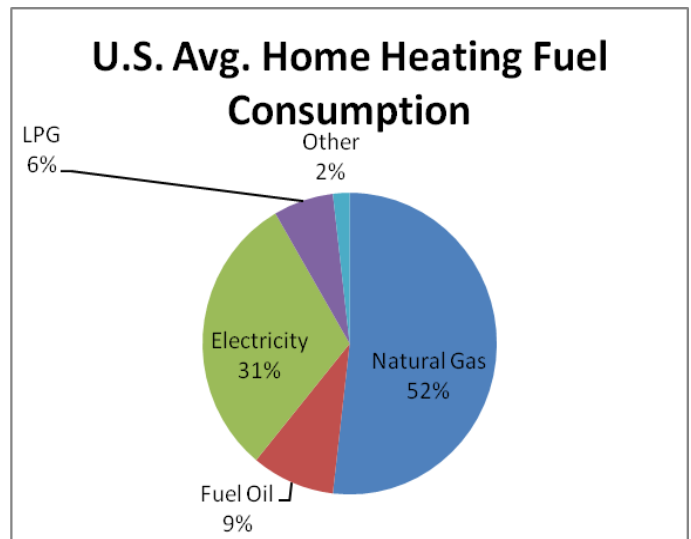


Fig 2.

Iowa ranks sixth in country for total energy usage per capita. This is due mostly to the fact that large amounts of energy are required for the agricultural industry. According to the United States Energy Information Administration, natural gas supplies nearly one fifth of the Iowa's

energy. Approximately two-thirds of Iowa's homes are heated with natural gas. Figure 1 shows the distribution of home heating fuel in Iowa. Compared to the national average, Iowa uses less electricity for home heating than the rest of the country. Iowa's use of liquefied propane gas for home heating is higher than the average consumption for the United States.

In the United States, the operations of buildings consume approximately 40 percent of the nation's total energy consumption. Buildings that are built to energy codes consume less energy during their lifetime. Energy codes can provide more benefits than just energy cost savings. Compliance with energy codes can also provide reduced emissions and enhance our state and country's energy independence. Energy codes provide a quick and cost effective way to provide energy efficiency. The Commission chose to focus on the benefits of energy codes and energy code compliance for many of their recommendations due to the fact of the high level of energy savings that could be achieved by just enforcing the energy code statewide. In addition, to energy codes, utilities in Iowa have been offering incentives and rebates to encourage energy efficient construction and new energy efficient technologies.

III. Commission Proceedings

The Commission considered a variety of approaches to reducing building energy use, including adoption and enforcement of building energy codes, financing of energy efficient construction, tax incentives for energy efficient construction and operation of buildings, incentive rebates for energy efficient construction, education and training of the public, officials, and those involved in construction, and commissioning of new and existing buildings. A significant point of emphasis is that the goal is restraining energy consumption, so that none of these approaches stand on their own, but only as tools to achieve energy savings.

The Commission began meeting on October 22, 2008 in the midst of the national economic crisis. At the initial meeting, members of the Commission discussed the charge of the Commission that was issued by the Iowa General Assembly. Committees were set-up and goals were established. Commission members were already establishing the goals and recommendations that were to be presented to the Governor and Iowa General Assembly prior to the establishment of the American Recovery and Reinvestment Act (ARRA). ARRA contained many provisions regarding energy efficiency and energy policy. Since this Commission had formed prior to ARRA, many of the energy efficiency requirements that the ARRA language contained were already being studied or implemented due the requirements of this Commission. An example of this was the ARRA language required all state governors to sign a letter of

assurance to receive additional funding if their state passed the 2009 International Energy Conservation Code as their State Energy Code for residential buildings. The State Building Code Bureau, with support from the Commission, was already planning on adopting the 2009 International Energy Conservation Code prior to ARRA.

Due to the passing of ARRA, the agenda of the Commission changed as provisions of the legislation or grant opportunities made their way to Iowa. During the Commission, the State of Iowa was the first state in the nation to receive ARRA funding from the U.S. Department of Energy for funding energy efficiency, renewable energy, and green jobs projects. The Office of Energy Independence administered all of the grants and distributed them through a variety of programs. The Department of Public Safety was able to secure funding for energy code enforcement resources through the United States Department of Energy-Energy Efficiency & Conservation Block Grant Funding. In addition the Department of Public Safety was chosen as one of nine states in the nation to administer a pilot study to evaluate energy code enforcement levels and develop a list of best practices for energy code enforcement.

The Commission first focused on the State Energy Code as an area of study. The State Energy Code is applicable throughout the state to all construction, except the remodeling and renovation of one and two family dwellings. This was due to the fact that energy code adoption and energy code enforcement provide the simplest and most cost affective means to achieve energy efficiency for newly constructed buildings. During the life of the Commission, the State Building Code Bureau adopted the 2009 International Energy Conservation Code. Commission members unanimously supported the adoption of this code.

The Commission also studied the enforcement of the State Energy Code. The Commission, Department of Public Safety, Iowa State Association of Counties and Iowa League of Cities developed a survey that was sent to all of the cities and counties in Iowa. The survey asked questions ranging from what building and energy codes the city or county adopted to what level of code enforcement was offered by the city or county. The survey provided valuable information. All cities over 15,000 in population had adopted building codes and building code enforcement due to the passing of a recent state law. Many of the larger cities in Iowa, those over 8,000 in population, had adopted building codes and provided building code enforcement. Energy code enforcement was much less for the same group of cities. Energy code enforcement for cities over 8,000 in population was approximately 25 percent. Many cities that had adopted building codes did not perform energy code enforcement. These cities cited an insufficient amount of resources, lack of training, lack of authority (due to state law), and

unwillingness to enforce a code that did not affect life safety as a factor that inhibited energy code enforcement.

Incentives and utility rebates were discussed by the Commission. Kimberly Willer, one of the Commission members representing investor owned utilities, provided the Commission with an overview of the entire current rebate and incentive programs offered by all of the investor owned utilities. The Office of Energy Independence provided an overview of their Building Energy Smart program that provides assistance to public and private entities to provide energy efficiency upgrades to existing buildings.

Building labeling programs and sustainable design standards were studied in depth by members of the Commission. Recommendations were issued by the Commission on the use of sustainable design standards and the benefits of benchmarking public buildings. Also during the life of the Commission, the State Building Code Bureau adopted Sustainable Design Standards for projects that were required due to the conditions set forth by the legislature or another state agency. During the Commission, the State Building Code Bureau hosted a symposium that invited building owners, design professionals, government agencies, and others involved in the energy and construction industries to discuss what sustainable design standards should be adopted by the state.

Since the Commission represented various stakeholders throughout the regulatory, energy, and construction sectors, many avenues and strategies were discussed and researched before providing recommendations to be included in this report. One of the key charges given to the Commission was to seek input from a variety of stakeholders outside of those named as Commission members. Specific stakeholders were named in the legislation such as the Iowa League of Cities, Iowa Department of Public Health, Iowa Department of Transportation, Iowa Landlord Association, and the Iowa Department of Human Rights- Community Action Division. Each of these stakeholders provided valuable information to members of the Commission and aided in the development of recommendations to enhance energy efficiency efforts. Below is a brief synopsis of the meeting that was held with each group.

- ***Iowa League of Cities*** – The Iowa League of Cities was a regular attendee at all Commission meetings. The Department of Public Safety and the League partnered together to develop and issue a survey to all cities in Iowa regarding building energy codes adoption and enforcement. Extremely valuable information was provided by this survey. This survey provided Commission members a snapshot on how the State

Energy Code is enforced through municipalities and what barriers exist that inhibit the enforcement of the State Energy Code.

- ***Iowa Department of Public Health***- The Iowa Department of Public Health provided a brief overview on the affects of energy efficiency and indoor air quality. The IDPH currently administers a program called the Healthy Homes Initiative. This program provides training to local and county public health departments concerning home health issues such as carbon monoxide, radon, lead, mold and pest control. State Toxicologist, Stuart Schmitz also provided input regarding fresh air ventilation requirements and indoor air quality. As buildings become tighter due to increased energy efficiency requirements, it is imperative to ensure ventilation requirements, as specified by building and mechanical codes, are followed.
- ***Iowa Department of Transportation*** – Scott Gustafson, Facilities Engineer with the Iowa Department of Transportation, provided a presentation on the energy efficiency practices that IDOT is currently implementing in their facilities across Iowa. IDOT maintains numerous maintenance garage complexes, driver’s license stations, rest areas, and office buildings across the state. Scott and the rest of the facilities staff at IDOT use Leadership in Energy and Environmental Design (LEED) Silver standards published by the United States Green Building Council (USGBC) for new construction. The LEED silver design standards are used, but certification has not been sought due to the documentation requirements. The IDOT facilities team is also considering using LEED standards for remodeling projects.
- ***Iowa Landlord Association*** - The Iowa Landlord’s Association provided a presentation from one of its members that has been leading the charge on energy efficiency. Keith Denner provided a brief presentation regarding energy efficiency in multi-family properties. Keith Denner owns and operates the Sun Prairie Apartment Complex in West Des Moines along with other rental properties in Iowa. Sun Prairie Apartments is one of the largest apartment complexes in Iowa. Mr. Denner has implemented a variety of energy efficiency measures at the Sun Prairie Apartment complex. Some the implementations included low flow toilets, compact fluorescent lighting, and thermal curtains. Mr. Denner also mentioned he is very interested in energy efficiency and he believes that energy audits should be required as a part of disclosure during real estate transactions. He also believes that buildings should carry energy ratings. Mr. Denner

mentioned that he has kept detailed paperwork on energy efficiency improvements for Sun Prairie and is able to show how these efficiencies have cut his operating expenses.

- ***Iowa Department of Human Rights- Community Action Division*** – Bill Brand with the Division of Community Action Agencies in the Department of Human Rights provided the Commission with an overview of the weatherization assistance program. The weatherization program has been in existence for over thirty years. It has been primarily federally funded and targets residential energy efficiency for low income participants. Bill explained that Iowa typically has received approximately 15 million dollars annually for the weatherization program from the federal government. The 2009 American Recovery and Reinvestment Act allocated 80 million dollars to Iowa. It is estimated that 7,200 homes in Iowa will be weatherized as a result of ARRA funds. A household is eligible based on criteria such as income level or whether an applicant is receiving financial assistance from a government program. The community action agencies serve all of Iowa's 99 counties. The community action agencies can contract out the weatherization services or perform the work with their employees. The weatherization program focuses on energy efficiency and health and safety. Homes are ranked on energy usage and those using the most energy are placed on a priority list. Bill explained that health and safety inspections focused on checking for carbon monoxide, checking the condition of the furnace heat exchanger, checking for asbestos and potential moisture problems, and ensuring there are no gas leaks. Energy efficiency measures include adding insulation, reducing air infiltration, repairing the heating system, replacing inefficient freezers and refrigerators, installing low flow shower heads and installing compact fluorescent light bulbs. Bill commented that the hiring and training of the workers needed for the additional weatherization projects due to ARRA has been challenging. The municipal utilities commented that there is an additional opportunity for the Iowa Department of Human Rights to work together with municipal gas and electric utilities, similar to the low-income energy efficiency programs that Iowa's Community Action Agencies and Iowa investor-owned utilities currently collaborate.

The work of this Commission has been coordinated by the Iowa Department of Public Safety-State Building Code Bureau and the Commissioner's Office. The Commission dissolved on June 30, 2010.

IV. Recommendations

One of the main objectives of the Commission was to develop recommendations regarding energy efficiency standards for buildings, incentives for energy efficiency construction projects, and incentives for a building labeling/ rating system for energy efficient buildings. These recommendations represent actions that can be taken to promote energy efficient standards and practices to reduce energy usage and lower building operating costs.

A. Energy Code Adoption and Compliance

The State Energy Code in Iowa is adopted as part of the State Building Code; however, contrary to what is the case for much of the State Building Code, the State Energy Code applies statewide to all construction, except for remodeling or renovation of existing one and two family residences. In an annual national assessment of state efforts to promote energy efficiency, the American Council for an Energy-Efficient Economy has rated Iowa very highly on adoption of its energy code as promoting energy efficiency, while ranking Iowa lower on its efforts to ensure compliance with the energy code. Currently the State Energy Code adopts the 2009 International Energy Conservation Code as published by the International Code Council.

Building energy codes set the minimum energy standards required to legally construct a building. Energy codes require that buildings employ minimum levels of cost effective and energy efficient technologies. Research completed by the Institute for Market Transformation, shows that for every dollar spent on energy code compliance and enforcement yields six dollars in energy savings. Energy codes provide low cost tools to provide reduced energy costs and increased energy efficiency.

1.1 RECOMMENDATION: The State Building Code Commissioner and Building Code Advisory Council should continue to adopt succeeding editions of the International Energy Conservation Code (IECC), provided that amendments may be needed to address conditions specific to Iowa. An effort should be made to minimize amendments from the nationally-recognized code to maintain consistency between Iowa construction requirements and those which apply in other jurisdictions which adopt the IECC.

Currently the State Energy Code adopts the 2009 International Energy Conservation Code (IECC) as published by the International Code Council. The IECC is a nationally recognized model code that contains requirements for energy efficient design and

construction of all building types, in all U.S. locations. The IECC contains three alternative compliance paths: simplified prescriptive requirements, a total building envelope UA (U-factor multiplied by area) approach, and a simulated performance approach. The IECC has a simple and clear map-based format for presenting code requirements that vary by climate zone, where the appropriate climate zone can be easily determined from a county map of the U.S. The IECC has eight primary climate zones. Iowa falls into two climate zones (Zones 5 and 6). Building envelope (i.e. walls, windows, doors, etc.) requirements become more stringent as the climate becomes colder, so more insulation and better windows are required in northern Iowa compared to southern Iowa.

1.2 RECOMMENDATION: Code-based improvements in energy efficiency beyond the current edition of the IECC should be sought in two ways:

(1) Iowa officials involved in the code adoption process by the International Code Council should continue to support aggressive improvements in succeeding editions of the IECC. This would facilitate improvements in building energy efficiency based upon code compliance without placing the construction industry in Iowa at a comparative economic disadvantage.

(2) The Iowa General Assembly and Executive Branch agencies engaged in constructing buildings or facilities or financing such construction, both new construction and renovation, should consider extending the applicability of sustainable design requirements adopted by the Building Code Commissioner as part of the State Building Code or other energy efficiency requirements exceeding the energy code.

The 2009 version of the IECC provided a twelve percent increase in energy savings over the previous 2006 edition of the IECC. In October 2010, the ICC governmental voting representatives cast their ballot to increase the energy savings of the 2012 version of the IECC to thirty percent greater than the 2006 version. The State Building Code Bureau will begin examining the 2012 version of the IECC in early 2012 for possible adoption in 2013.

Sustainable design requirements or above code programs for public buildings would provide a cost effective use of public monies due to increased energy savings and reduced building operating costs. In addition these measures would allow the state to lead the charge of energy efficiency by leading by example.

1.3 RECOMMENDATION: Adoption of various energy efficient construction requirements and the enforcement of those requirements should be as consistent as feasible at the state level and at the local level.

The state energy code is the 2009 version of the International Energy Conservation Code (IECC). The IECC is a member of the International Code Council (ICC) family of codes. The ICC develops construction codes for building, residential building, mechanical, plumbing, fuel gas, fire safety, energy, etc. All of these codes that address various portions of a building are designed to work together and are correlated to avoid any conflicts. The IECC references the International Mechanical Code for many of its code provisions regarding energy efficiency for heating and cooling equipment. Correlation and consistency among code requirements is critical; and therefore it is essential that consistency be maintained between the adoption of the energy code and the mechanical code. Although the State Mechanical Code, as adopted by the State Building Code Bureau, is not applicable throughout the state, many local jurisdictions adopt the International Mechanical Code for the installation of heating, ventilation, and cooling equipment. The State Energy Code, which is the 2009 IECC, works in tandem with the International Mechanical Code.

1.4 RECOMMENDATION: The State Building Code Bureau should develop a model protocol for energy code inspections and plan reviews.

Since the State Energy Code applies to construction statewide, the State Building Code Bureau should provide a model protocol for energy code inspections and plan reviews to be used by local jurisdictions to implement energy code enforcement measures. The model protocol would provide checklists, plan review guides, etc. for local code officials to follow to ensure adequate energy code enforcement. Recently, the State Building Code Bureau was awarded an Energy Efficiency & Conservation Block Grant through the U.S. Department of Energy to fund two positions to aid in the enforcement of the State Energy Code. These positions will develop energy code enforcement tools and provide energy code outreach to local jurisdictions.

1.5 RECOMMENDATION: A menu of alternative approaches to energy code enforcement should be available to local jurisdictions at their discretion:

- ***Jurisdictions which choose to provide energy code enforcement should be supported in doing so.***
- ***Jurisdictions which provide building code enforcement and choose not to provide energy code enforcement should be allowed to do so and provided with options of plan reviews and inspections conducted by third party contractors, selected by the State Building Code Commissioner, or by state inspectors if feasible.***
- ***Energy code enforcement in areas without local code enforcement should be subject to energy code enforcement provided by a third party contractor selected by the State Building Code Commissioner or state inspectors, if feasible.***

The issue of energy code enforcement has become a national topic with the passing of the American Recovery and Reinvestment Act (ARRA) in 2009. Within the ARRA requirements, all state governors issued a letter of assurance that states will be ninety percent compliant with targeted energy codes by 2017. These targeted energy codes were the 2009 International Energy Conservation Code for residential building and Standard 90.1- 2007 published by the American Society of Heating Refrigeration and Air-Conditioning Engineers (ASHRAE) for commercial buildings. In Iowa, energy code enforcement is accomplished at the local level. Current enforcement of the state energy code is very sporadic across the state. Energy code enforcement by state and local building code authorities is lacking in many areas across the state. The issue of providing different approaches to energy code enforcement was discussed at length with members of the Commission and members of the building inspection community. The consensus of these discussions was to provide choices for local jurisdictions. A local jurisdiction that wants to perform their own energy code plan reviews and inspections can continue to perform these functions. If a city decides it does not have the resources to perform energy code enforcement, a third party energy code inspection contractor hired by the State Building Code Commissioner (or state inspector if feasible) would provide energy code enforcement for that city. Areas without any local code enforcement would either use a third party energy code inspection contractor or a state inspector. A funding stream for either the third-party contractor or state energy code inspector would need to be established.

1.6 RECOMMENDATION: *The State Building Code Bureau should continue to develop enhanced technical capacity in energy code issues, including the ability to provide interpretations of energy code provisions to code officials.*

During the life of the Commission, the State Building Code Bureau was awarded an Energy Efficiency & Conservation Block Grant from the U.S. Department of Energy. This award allows the hiring of an energy code engineer and an energy code inspector to facilitate enforcement of the State Energy Code. Many local jurisdictions do not possess the personnel or the expertise to adequately enforce the energy code. These positions will provide technical support and code interpretations for state and local jurisdictions. A toll-free hotline was also established with this grant to allow local building officials the ability to receive technical support regarding the State Energy Code. These positions are only funded through June 2012. Additional funding mechanisms will need to be pursued to allow these functions to continue within the State Building Code Bureau.

1.7 RECOMMENDATION: *The State Building Code Bureau should develop a database of energy and related building code enforcement information for political subdivisions, including codes adopted and areas enforced.*

During the life of the Commission, a survey was completed by the Iowa League of Cities to gain information regarding the enforcement of the State Energy Code. This survey provided valuable information regarding cities building and energy code activities. As helpful as this survey was, additional information can be gained by developing a database of what building codes are enforced throughout the state as well as what political subdivisions provide building and energy code enforcement. This database would be made available to the public, via a public accessible website, to allow for better dissemination of information concerning applicable building and energy codes in Iowa.

1.8 RECOMMENDATION: *The State Building Code Commissioner should be given authority to develop and establish standards for third party energy code enforcement and to contract with third party providers for energy code enforcement.*

If a third party energy code enforcement contractor program is established, the rules, standards and contracts should be established by the State Building Code Commissioner. This would be needed to provide consistency and ensure objectivity for the third-party program. The third-party energy code contractors would need to meet the same standards as state and local energy

code inspectors. Authority to contract with third-party contractors would allow the State Building Code Commissioner to provide energy code enforcement to those areas of the state do not have the resources to provide this service. In addition contracting with third-party contractors would provide state energy code enforcement on an as needed basis, rather than requiring full-time resources at the state or local level.

1.9 RECOMMENDATION: The General Assembly should clarify the intent of requirements for life cycle cost analysis for projects to allow for consideration of total building energy use and total cost of building ownership.

The Life Cycle Cost Analysis requirement for the construction of public buildings is a vital tool to allow those involved with the design and construction of the building to evaluate different building components. The goal of the life cycle cost analysis is to provide the lowest life cycle cost for the ownership of the building. Many times the most energy efficient design does not have the lowest life cycle cost. The General Assembly needs to clarify the intent of the life cycle cost analysis on whether cost savings or energy savings should be the governing factor.

1.10 RECOMMENDATION: Following the recommendations of the life cycle costs analysis should be required for all building and facilities constructed or financed by a public entity, not just state-owned facilities.

Currently Iowa Code 470 provides specific language for projects that are required to adhere to the life cycle cost analysis. New buildings that exceed twenty thousand square feet are required to comply as well as additions that exceed fifty percent of the value of the original building are required to submit a life cycle cost analysis. Since building projects are becoming more complex, the life cycle cost analysis shall either apply to all public buildings, regardless of size or the requirements shall be rewritten to better define their appropriate use.

B. Financing and Incentives

Iowa law requires that all utilities have energy efficiency plans. The Iowa Utilities Board has the authority to set goals and approve plans for investor-owned utilities. Many Iowa utility companies offer a variety of incentives and financing options for energy-efficient improvements to customer's properties. Incentives are often offered for energy efficiency improvements in new construction projects and retrofits in existing buildings. Utilities also offer rebates or low-interest loans to customers when they make energy efficient improvements to their homes or

businesses; examples include rebates for installing a new high-efficiency furnace. In addition to utilities, federal, state, and local governments are encouraging more energy efficient methods by providing tax incentives and other financing options.

2.1 RECOMMENDATION: Develop a comprehensive analysis of any gaps in financing and incentives for energy efficient construction

Recognizing that upfront costs continue to present an obstacle to implementation, a comprehensive analysis should be commissioned to investigate any gaps in energy efficiency financing and incentive programs in Iowa. As part of settlement agreements for the IOUs' current energy efficiency plans, the Iowa Utilities Board approved a collaboration process among Iowa utilities and energy efficiency stakeholders, which is primarily voluntary in nature and administered by the Office of Consumer Advocate. The collaboration seeks to identify and advance, where appropriate, additional opportunities for coordinated energy efficiency program processes and best practices in energy efficiency programming and delivery. With this focus, it is expected that the collaborative will positively contribute to efforts to make Iowa rate payer funded energy efficiency programs more uniform, available, and user-friendly.

The energy efficiency collaborative could help guide and inform a comprehensive analysis of gaps in energy efficiency financing and incentives.

2.2 RECOMMENDATION: Compile a menu of optional energy efficiency financing alternatives, including interest buy-downs, on-bill financing, special assessments, loan loss reserves, and loan payments from energy costs saved should be provided as feasible in both the commercial and residential sectors that encourage energy efficient construction to meet or exceed the energy code in existing structures and to exceed the energy code in new construction

Incentives and other financing alternatives provide a means for existing buildings to be upgraded to use energy more efficiently. In addition consumer choices can be altered to include more energy efficient products and methods, especially for new construction, if financing programs are provided. Financing programs are just one part of the energy efficiency equation. Financing programs need to be combined with other tools such as education, outreach, technical assistance, etc. to allow consumers to make the decisions to perform energy efficiency upgrades. All information concerning these energy efficiency financing alternatives shall be published on a state website.

2.3 RECOMMENDATION: Political subdivisions should be authorized to provide loans for energy efficiency improvements to existing buildings, with repayment through special property tax assessments, if they wish to do so.

Special property tax assessments enable political subdivisions to raise money through the issuance of bonds or other means to fund energy efficiency projects. Tax Increment Finance Districts or other special assessment tax districts allow political subdivisions to issue bonds to fund projects with a public purpose, such as roads, sewers, or other public infrastructure. The property owners that benefit from the improvement repay the bond through property assessments, which are paid as an addition to the property tax bill. The use of special assessments to finance energy efficiency improvements would allow a property owner to install energy efficient upgrades without a large up-front payment. The financing would be repaid over a set number of years through a special tax or assessment only on the property owners who voluntarily chose to add the cost of energy efficient upgrades to their property taxes. Financing is secured through a lien on the property to protect the political subdivision in case of foreclosure.

2.4 RECOMMENDATION: Offer financial incentives for verifiable energy efficient construction projects, measures, and improvements implemented at premises in Iowa that use propane or fuel oil for heating.

Consumers who utilize propane and other fuel oils for heating purposes have limited or no access to financial incentives to encourage implementation of energy efficient construction projects, measures, and improvements. Recognizing that upfront costs continue to present an obstacle to implementation of energy efficiency, policymakers should identify and authorize a sustainable funding mechanism to extend the availability of energy efficiency incentives to Iowa consumers who utilize propane or fuel oil for heating but do not have access to comprehensive energy efficiency incentives.

2.5 RECOMMENDATION: Energy efficiency programs and initiatives should continue and expand the availability of incentives that encourage upgrading existing building components to comply with or exceed current energy code requirements.

Iowa's gas and electric utilities continue to be a leader in energy efficiency program spending. In 2006, according to the Consortium for Energy Efficiency, Iowa was the leader of utility energy efficiency spending per capita. According to the 2007 Iowa Utilities Board presentation to the

Energy Policy Advisory Forum, energy efficiency spending for rebate programs and incentives has reduced the growth of annual electricity use by two million megawatt-hours and reduced the growth of annual natural gas use by 7 billion cubic feet. Iowa has received many economic benefits from the energy efficiency programs offered by utilities. Societal tests for investor-owned utilities show that customer of IOU's have received two dollars on every one dollar invested. Investor-owned utilities have provided these savings of energy and energy costs by providing incentives for energy efficient new construction, offering rebates and incentives for energy efficient upgrades in existing buildings, and providing assistance and incentives for energy efficient upgrades for commercial, industrial, and agricultural industries. Consumer-owned utilities are also required to implement energy efficiency programs, set energy savings goals, create plans to achieve those goals, and report to the Iowa Utilities Board. Electric cooperative societal tests as recently filed with the Iowa Utilities Board reflect \$1.32 savings for every dollar invested in energy efficiency for the electric cooperatives expected over the plan years of 2010 to 2014. Municipal utility assessments of potential have also indicated the benefits of efficiency programs – as one example, the societal test in the assessment of potential filed with the Iowa Utilities Board by the municipal members of Missouri River Energy Services indicates \$2.29 in benefits for every dollar invested in their portfolio of energy efficiency programs.

2.6 RECOMMENDATIONS: Any tax credits, deductions, or refunds offered for energy efficient construction, measures, and improvements should meet the following criteria:

- a. Stability, reliability, predictably**
- b. Sunset provisions should be no less than 5 years**
- c. Participation of rental properties should be facilitated.**
- d. Self Supporting Municipal Improvement Districts (SSMID) and tax abatements should be allowed for energy efficiency improvements;**
- e. Encourage energy efficiency improvements in Tax Increment Financing Districts.**
- f. Promote verifiable and cost-effective energy efficiency construction projects, measures, and improvements that exceed the energy code and minimum efficiency requirements.**

Incentives offered by state and local government should encourage development and increase energy efficiency. These credits, deductions or refunds should be stable, reliable and

predictable in order for real estate developers and investors to conduct long range development planning.

C. Training and Education

Energy efficiency needs to appeal to broad range of interested parties. Training and education are key elements in promoting the benefits of energy efficiency and exposing consumers and industry professional to new technologies, incentives, and other information to encourage energy efficient practices and projects. The benefits of energy efficiency reach across entire communities. Efforts to promote energy efficient education at all levels of government will lead to energy saving practices.

3.1 RECOMMENDATION: Develop comprehensive inventory of existing education programs related to energy efficient building construction and operations.

In order to prevent duplication of existing programs and to provide the most benefit for taxpayer dollars, a complete inventory of existing education programs related to energy efficiency practices should be maintained. This list shall be housed by a state agency that has a direct role in energy efficiency and education, such as the Office of Energy Independence, Iowa Energy Center, or other appropriate agencies. The list of education programs should also be available via a public accessible website.

3.2 RECOMMENDATION: Develop symposium to encourage and assist in enhancing coordination of education related to energy efficient construction and operations.

The State Energy Council, which is a council of state government leaders that have responsibility for energy efficiency or usage, developed a subcommittee to provide coordination of existing training efforts by various state agencies. An annual symposium that allowed all of the education efforts related to energy efficient construction and operations would be extremely beneficial to identify all energy education efforts and to avoid any duplication of efforts.

3.3 RECOMMENDATION: Training and education in energy efficient construction and marketing of energy efficiency should be enhanced and provided to all those involved in building construction and operations, from design professionals through building operators with an emphasis on builders, realtors, appraisers, and lenders.

Many of those involved in construction, design or real estate lack the knowledge on what products or incentives are available for energy efficiency projects. Education should be provided to showcase the cost benefits and environmental benefits that energy efficient construction provides to the community and the building owner.

3.4 RECOMMENDATION: Education of code officials on the existence and scope of the energy code should be provided. Training on the content and enforcement of the energy code should be provided at no or very low cost to code and other government officials.

Energy codes provide an affordable and effective mechanism to provide energy efficiency. Many political subdivisions lack the necessary training and enforcement resources to ensure compliance with the energy code. In order for energy codes to be truly effective, training on the content and enforcement of the energy code must be provided to political subdivisions at no or very low cost.

3.5 RECOMMENDATION: The State of Iowa should lead by example by educating all building occupants in state buildings about the impact of personal appliances and occupant behavior on energy consumption and costs.

Changing the habits of building occupants through education is a very effective means of gaining energy efficiency. Education programs shall be offered to all building occupants in state buildings to show the impacts of personal appliance energy usage. The education shall also offer additional energy savings tips regarding building use and occupant behavior.

3.6 RECOMMENDATION: Existing efforts by utilities to develop building occupant awareness of energy efficiency should be enhanced and should be promoted by the state.

State and local governments should partner with utilities to provide information to building occupants, property owners, etc to promote the energy efficiency incentives, rebates, and other products that are being offered by utilities.

3.7 RECOMMENDATION: Curricula at each level of formal schooling should reflect energy efficiency and its importance whenever appropriate.

Energy efficiency should motivate the next generation to guide energy-efficient behavior and generate enthusiasm for careers in energy technology and other energy-related sectors.

Curricula should be designed at both the primary and secondary education level to encourage energy-efficient behavior and sustainable practices.

3.8 RECOMMENDATION: Building energy consideration should be reflected in all curricula related to building construction.

Energy efficiency should be included in curricula related to building construction. Colleges that offer bachelor degrees, community colleges, vocational schools, and other trades school should include energy efficient design and construction practices into education programs that are involved in the design or construction of buildings or building systems.

D. Licensing and Certification

4.1 RECOMMENDATION: Certification of energy code enforcement officials should be required, using existing national standards.

Certification programs raise the professional profile of code officials. Certification in the energy code allows an individual to demonstrate their level of knowledge and understanding of this document. As the energy code becomes more complex, it is desirable for code officials to demonstrate they have achieved a sufficient level of knowledge of the energy code by obtaining certification.

4.2 RECOMMENDATION: Building operator certification programs should be facilitated and encouraged, and recognized by public entities, whose building operators should be encouraged to obtain certification.

Facility managers and building operators are responsible for a variety of building's systems, such as the electrical, HVAC, and lighting systems. To operate a building efficiently, one must be able to understand all of these systems and develop an overall plan that optimizes each system to provide the most energy efficiency to a building. Building operator certification programs train facilities personnel on how building systems work together and how to provide the most energy efficiency to a building. In addition to providing strategies for building systems operation, certification programs also train facilities personnel on preventative maintenance and other building system topics.

4.3 RECOMMENDATION: The State of Iowa should implement requirements that will result in an operator of each major state buildings being certified.

In order to ensure that State of Iowa is utilizing its resources in an efficient and effective manner, facilities personnel that operate major state buildings shall be certified in building operations. Certifications will allow facility personnel that they are operating state facilities to optimize energy efficiency and reduce energy usage.

4.4 RECOMMENDATION: Certification of HVAC installers in proper installation of energy efficient equipment should be encouraged and promoted and should be required for installers of equipment using public funds or receiving incentives, including utility rebates.

Correct installation of any heating, ventilation, and air conditioning (HVAC) equipment is critical for the performance of the system. This especially holds true for the installation of energy efficient equipment. Certification programs for HVAC installers should be encouraged and promoted for all installations. Certified HVAC installers shall be required for installers using public funds or receiving utility rebates. Certification programs teach installers on proper installation techniques, correct selection and sizing of equipment and ductwork, and appropriate methods to adjust the settings of heating and cooling to maximize the efficiency of their operation. Implementation of this recommendation should be coordinated with the Iowa Plumbing and Mechanical Systems Board.

E. Additional Energy Efficiency Recommendations:

5.1 RECOMMENDATION: Apply energy code to renovation and remodeling of one and two family residences.

Currently, the State Energy Code applies state-wide and to all construction except the renovation and remodeling of one and two family residences. The energy code should be expanded to include these activities. Additions and renovations provide the ideal time for buildings to be required to increase their energy efficiency. The International Energy Conservation Code, which the State of Iowa adopts as its energy code, already has provisions that address additions, alterations, renovations and remodeling to existing buildings. Additions or alterations can place different demands on an existing system that may necessitate changing all or part of an existing system. Since the energy code does not currently apply to renovations

or remodeling, existing heating and cooling equipment could use more energy than initially intended due to increased demands. The energy code should apply to renovations and remodeling projects of one and two family dwellings in order for these projects to be consistent with national standards and to allow for upgrades in energy efficiency.

5.2 RECOMMENDATION: Require more detailed disclosure of energy use in buildings at time of listing.

Energy information disclosure about a building's energy usage is a vital asset in promoting consumer awareness of energy efficiency. State government should require property owners or realtors to disclose energy usage at the point-of-listing. This action would allow consumers to make informed choices on the energy performance and operational cost of a building prior to purchasing. In addition this would drive the construction of new energy efficient buildings and the retrofiting of existing buildings to become more energy efficient.

5.3 RECOMMENDATION: Establish benchmarking of energy use in publicly owned buildings in the state, and establish program to allow communities to require benchmarking of public buildings within a community.

Benchmarking is a method of comparing one building with other similar type buildings to determine appropriate energy usage. Benchmarking allows building owners to determine whether or not energy improvements need to be made in existing buildings. Once energy improvements are made, benchmarking can show how effective those changes were in reducing energy usage. The Iowa Energy Center (IEC), a unit within Iowa State University, is conducting a pilot research and demonstration project to benchmark a sampling of public buildings in Iowa across multiple sectors including city, county, state, k-12, and community college facilities in an effort to evaluate a benchmarking methodology across multiple building types. The initial phase of this project will sample approximately 10 – 15% of public buildings across the state. The IEC has convened a stakeholder advisory group including representatives from, the Iowa Utility Association, the Iowa Association of Municipal Utilities, the Iowa Association of Electric Cooperatives, the Office of Consumer Advocate, the Iowa Utility Board, as well as state agencies including the Department of Public Safety, Office of Energy Independence, Department of Administrative Services, and Iowa Department of Transportation. This stakeholder group continues to expand with representatives from the Iowa League of Cities, the Iowa Association of Counties, and the Iowa Department of Education. The

stakeholder group will meet quarterly during the project period to provide critique and input for the pilot project and participate in evaluating the project at completion. Initial resources for this project are being funded through the Office of Energy Independence with Federal ARRA funding. The project began October 1, 2010 and will conclude by March 31, 2012.

5.4 RECOMMENDATION: Support and incentives should be developed for political subdivisions for code enforcement and compliance.

Energy code enforcement begins at the local level. Incentives and support should be provided to political subdivisions that are enforcing the state energy code. The State Building Code Bureau will attempt to provide as much technical support to political subdivisions as existing state resources will allow.

5.5 RECOMMENDATION: Commissioning of new multi-family residential buildings, commercial buildings, and retro commissioning of major existing non-residential building should be encouraged, through incentive programs.

Building commissioning for new buildings is a quality assurance process to verify and document that building systems function as designed and meet the operational needs of the building. Retro-commissioning is the act of commissioning existing buildings. Key elements of building commissioning include verifying building systems performance documenting design intent and operating sequences, and training building operations staff on system operation and maintenance procedures. Commissioning is becoming a common industry practice for newly constructed commercial buildings. Retro-commissioning usually focuses on energy using equipment such as lighting, mechanical equipment, and equipment controls with the goals of obtaining energy cost savings for the owner. The act of commissioning a building does cost the building owner money, however; the initial costs of commissioning are recovered many times over through increased energy costs savings and more efficiently operated buildings. Existing buildings can achieve energy savings through the use of incentives provided for retro-commissioning. Historically, multi-family residential buildings are typically not commissioned since their mechanical systems are relatively simple. As building technologies have evolved residential building mechanical systems have become more complex. Multi-family residential buildings would become more energy efficient due to building commissioning. Since residential building mechanical systems are typically less expensive than commercial building mechanical

systems, incentivizing commissioning for these projects would allow the residential sector of the construction industry to realize the benefits of commissioning.

5.6 RECOMMENDATION: Commissioning of new major state buildings should be required.

Building commissioning provides many benefits to the building owner and building occupants. Commissioning would allow for lower operating costs throughout the life of the building. Other benefits of commissioning include fewer disputes between the building owner and contractor, fewer changes orders where commissioning begins early, and a fully functional building at first occupancy. Although there is an increased up-front cost for building commissioning, experience has shown that a building that is not commissioned will cost more to operate than a commissioned building.

Appendix A

Commission on Energy Efficiency Standards and Practices Legislation (SF 2386)

Senate File 2386 - Enrolled

PAG LIN

1 1 SENATE FILE 2386
1 2
1 3 AN ACT
1 4 RELATING TO ENERGY EFFICIENCY BY ESTABLISHING A COMMISSION ON
1 5 ENERGY EFFICIENCY STANDARDS AND PRACTICES, PROVIDING FOR
1 6 THE REPORTING OF ENERGY EFFICIENCY RESULTS AND SAVINGS BY
1 7 GAS AND ELECTRIC PUBLIC UTILITIES, SPECIFYING PROCEDURES FOR
1 8 ASSESSING POTENTIAL ENERGY AND CAPACITY SAVINGS AND DEVELOP-
1 9 ING ENERGY EFFICIENCY GOALS BY GAS AND ELECTRIC UTILITIES
1 10 NOT SUBJECT TO RATE REGULATION, PROVIDING FOR THE ESTAB-
1 11 LISHMENT OR PARTICIPATION IN A PROGRAM TO TRACK, RECORD, OR
1 12 VERIFY THE TRADING OF CREDITS FOR ELECTRICITY GENERATED
1 13 FROM SPECIFIED SOURCES, AND PROVIDING FOR THE ESTABLISHMENT
1 14 OF AN INTERIM STUDY COMMITTEE TO CONDUCT AN EXAMINATION OF
1 15 ENERGY EFFICIENCY PLANS AND PROGRAMS WITH AN EMPHASIS ON
1 16 THE DEMAND OR CUSTOMER PERSPECTIVE, AND PROVIDING AN EFFEC-
1 17 TIVE DATE.
1 18
1 19 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:
1 20
1 21 Section 1. NEW SECTION. 103A.27 COMMISSION ON ENERGY
1 22 EFFICIENCY STANDARDS AND PRACTICES.
1 23 1. A commission on energy efficiency standards and
1 24 practices is established within the department of public
1 25 safety. The commission shall be composed of the following
1 26 members:
1 27 a. The state building code commissioner, or the
1 28 commissioner's designee.
1 29 b. The director of the office of energy independence, or
1 30 the director's designee.
1 31 c. A professional engineer licensed pursuant to chapter
1 32 542B.
1 33 d. An architect registered pursuant to chapter 544A.
1 34 e. Two individuals recognized in the construction industry
1 35 as possessing expertise and experience in the construction or
2 1 renovation of energy=efficient residential and commercial
2 2 buildings.
2 3 f. A member of a local planning and zoning commission or
2 4 county board of supervisors.
2 5 g. Three individuals representing gas and electric public

2 6 utilities within this state, comprised of one individual
2 7 representing rural electric cooperatives, one individual
2 8 representing municipal utilities, and one individual
2 9 representing investor-owned utilities.

2 10 h. A local building official whose duties include
2 11 enforcement of requirements for energy conservation in
2 12 construction.

2 13 i. Two consumers, one of whom owns and occupies a
2 14 residential building in this state and one of whom owns and
2 15 occupies a building used in commercial business or
2 16 manufacturing.

2 17 2. The commissioner shall appoint all members to the
2 18 commission other than those members designated in subsection
2 19 1, paragraphs "a" and "b". Appointment of members are subject
2 20 to the requirements of sections 69.16 and 69.16A. A vacancy
2 21 on the commission shall be filled for the unexpired portion of
2 22 the regular term in the same manner as regular appointments
2 23 are made. Members appointed by the commissioner shall be
2 24 reimbursed for actual and necessary expenses incurred in
2 25 performance of their duties. Such members may also be
2 26 eligible to receive compensation as provided in section 7E.6.
2 27 A majority of the members shall constitute a quorum.

2 28 3. Duties of the commission shall include but are not
2 29 limited to the following:

2 30 a. Evaluate energy efficiency standards applicable to
2 31 existing or newly constructed residential, commercial, and
2 32 industrial buildings and vertical infrastructure at the state
2 33 and local level and make suggestions for their improvement and
2 34 enforcement. The evaluation of energy efficiency standards
2 35 shall include but not be limited to a review of the following:

3 1 (1) The reduction in energy usage likely to result from
3 2 the adoption and enforcement of the standards.

3 3 (2) The effect of compliance with the standards on indoor
3 4 air quality.

3 5 (3) The relationship of the standards to weatherization
3 6 programs for existing housing stock and to the availability of
3 7 affordable housing, including rental units.

3 8 b. Develop recommendations for new energy efficiency
3 9 standards, specifications, or guidelines applicable to newly
3 10 constructed residential, commercial, and industrial buildings
3 11 and vertical infrastructure.

3 12 c. Develop recommendations for the establishment of
3 13 incentives for energy efficiency construction projects which
3 14 exceed currently applicable state and local building codes.

3 15 d. Develop recommendations for adoption of a statewide
3 16 energy efficiency building labeling or rating system for
3 17 residential, commercial, and industrial buildings and
3 18 complexes.

3 19 e. Obtain input from individuals, groups, associations,
3 20 and agencies in carrying out the duties specified in
3 21 paragraphs "a" through "d", including but not limited to the
3 22 Iowa league of cities regarding local building code adoption

3 23 and enforcement in both large and small communities, the Iowa
3 24 landlord association, the department of transportation, the
3 25 department of public health, the division of community action
3 26 agencies of the department of human rights regarding
3 27 low-income residential customers, and obtain additional input
3 28 from any other source that the commission determines
3 29 appropriate.

3 30 4. The commission shall be formed for the two-year period
3 31 beginning July 1, 2008, and ending June 30, 2010, and shall
3 32 submit a report to the governor and the general assembly by
3 33 January 1, 2011, regarding its activities and recommendations.
3 34 Administrative support shall be furnished by the department of
3 35 public safety, with the assistance of the office of energy
4 1 independence and the department of natural resources.

Appendix B

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2. U.S. Department of Energy – Building Energy Codes Program <http://www.energycodes.gov>
3. Energy Information Administration – State Energy Profiles
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4. Institute for Market Transformation – <http://www.imt.org>
5. “Building an Energy Efficient Future” *Western Governors’ Association*, January 2008
6. U.S. Department of Energy –Energy Efficiency & Renewable Energy -
<http://www1.eere.energy.gov/wip/solutioncenter/financialproducts/financingoverview.html>
7. International Code Council – <http://www.iccsafe.org>
8. “Energy Efficiency and Iowa Utilities” January 4, 2007 Iowa Utilities Board
<http://www.state.ia.us/iub>

Appendix C

Meeting Agendas and Meeting Minutes

Meeting Dates:

October 22, 2008
December 4, 2008
February 4, 2009
April 1, 2009
June 3, 2009
August 5, 2009
October 7, 2009
December 2, 2009
January 6, 2010
February 10, 2010
March 3, 2010
April 7, 2010
May 5, 2010
June 2, 2010

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
OCTOBER 22, 2008
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA

Agenda:

- | | | |
|-------|--------------------------------------------------------------------------------------------------------------|-------------------|
| I. | Call to Order and Welcome. | Chairperson Crine |
| II. | Introduction of Commission Members | |
| III. | Commission Member Administrative Issues | Lisa Havel |
| IV. | Commission Duties and Responsibilities | Chairperson Crine |
| V. | Explanation of the Administrative Rulemaking Process and Background on Enactment of Senate File 2386 and 517 | Mike Coveyou |
| VI. | Discussion on Committees and Assignments | |
| VII. | Discussion on Commission Goals and Objectives | |
| VIII. | Public Comments | Chairperson Crine |
| IX. | Commission Timetable and Future Meeting Schedule | Chairperson Crine |

Governor
Patty Judge
Lt. Governor



Chester J. Culver
Commissioner
James Kenkel
State Fire Marshal

**COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
NOVEMBER 4, 2008, 10:00 AM
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA**

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from October 22, 2008 Meeting
- III. Commission Member Administrative Issues
- IV. Report on Legislative Interim Committee on Energy Efficiency
- V. Report on Survey of Local Government Code Adoptions
- VI. Discussion on Committees and Committee Reports
- VII. Continuation of Discussion on Commission Goals and Objectives
- VIII. Public Comments
- IX. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

**COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
FEBRUARY 4, 2009, 10:00 AM
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA**

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from December 4, 2008 Meeting
- III. Commission Member Administrative Issues
- IV. Recommendations for Possible Legislation
- V. Report on Survey of Local Government Code Adoptions
- VI. Discussion on Committees and Committee Reports
- VI. Continuation of Discussion on Commission Goals and Objectives
- VII. Discussion on Federal Stimulus Bill
- VIII. Public Comments
- VIII. Update on Sustainable Design Standards
- IX. Other Business
- IX. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

**COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
APRIL 1, 2009, 10:00 AM
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA**

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from February 4, 2008 Meeting
- III. Discussion on Current and Future Legislation, including HF 780 – Energy Office Transfer
- IV. Report on Survey of Local Government Code Adoptions
- VI. Discussion on 2004 DNR Survey
- V. Committee Reports
- VI. Discussion on Federal Stimulus Bill and Adoption of 2009 IECC
- VII. Public Comments
- VIII. Update on Sustainable Design Standards
- IX. Other Business
- IX. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

**COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
JUNE 3, 2009, 10:00 AM
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA**

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from April 1, 2009 Meeting
- III. Review of Legislative Session
- IV. Report on Survey of Local Government Code Adoptions – Shannon Paseka, Megan Osweiler and Nathan Bonnet
- V. Presentation on Energy Compliance Auditing – Cenergy, Inc.
- VI. Committee Reports
- VII. Update on Federal Stimulus Bill and Adoption of 2009 IECC
- VIII. Presentation on RESCheck and ComCheck – Brian Bishop
- IX. Public Comments
- X. Discussion on Potential Changes to Life Cycle Cost Analysis Program
- XI. Update on Sustainable Design Standards – Mike Coveyou
- XII. Other Business
- XIII. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

**COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
AUGUST 5, 2009, 10:00 AM
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA**

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from June 3, 2009 Meeting
- III. Report on Survey of Local Government Code Adoptions – Shannon Paseka
- IV. Committee Reports- Legislative, Research & Education, others
- V. Update on Federal Stimulus Bill and Adoption of 2009 IECC
- VI. Presentation on RESCheck and ComCheck – Brian Bishop
- VII. Public Comments
- VIII. Report from ENERGY CODES 2009 – Stuart Crine & Mike Coveyou
- IX. Discussion on Life Cycle Cost Analysis Program- Lee Vannoy
- X. Other Business
- XIII. Next Meeting and Adjournment – Next Meeting October 7th, 2009

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

**COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
JANUARY 6, 2010, 10:00 A.M.
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA**

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from December 2, 2009 Meeting
- III. Committee Reports
 - a. Legislative
 - b. Research, Education, etc.
 - c. Others
- IV. Final Report Outline [Facilitated Discussion] – Mike Coveyou
- V. Public Comments
- VI. Other Business
- VII. Report Timeline and Future Meeting Schedule- Stuart Crine
- VIII. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

**COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
FEBRUARY 10, 2010, 10:00 A.M.
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA**

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from January 6, 2010 Meeting
- III. Committee Reports
 - a. Legislative
 - b. Research, Education, etc.
 - c. Others
- IV. Greg Dalhoff – Dalhoff & Associates- Iowa Weatherization program
- V. Mindy Uhle and Stuart Schmitz – Iowa Department of Public Health
- VI. Final Report Outline [Facilitated Discussion] – Mike Coveyou
- VII. Public Comments
- VIII. Other Business
- IX. Report Timeline and Future Meeting Schedule- Stuart Crine
- X. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

**COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
MARCH 3, 2010, 10:00 A.M.
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 343
215 EAST 7TH STREET
DES MOINES, IA**

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from February 10, 2010 Meeting
- III. Committee Reports
 - a. Legislative
 - b. Research, Education, etc.
 - c. Others
- IV. Presentation from Scott Gustafson – Iowa Department of Transportation
- V. Final Report Work Session – Mike Coveyou
- VI. Public Comments
- VII. Other Business
- VIII. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner
James Kenkel
State Fire Marshal

COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
April 7th, 2010, 10:30 A.M.
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 343
215 EAST 7TH STREET
DES MOINES, IA

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from March 3, 2010 Meeting
- III. Committee Reports
 - a. Legislative
 - b. Research, Education, etc.
 - c. Others
- IV. Bill Brand – Department of Human Rights- Community Action Division- Weatherization Program
- V. Utility Energy Efficiency Incentive Program – IUB/ OCA
- VI. Work Session on Final Report – Mike Coveyou
- VII. Public Comments
- VIII. Other Business
- IX. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner

COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
May 5th, 2010, 9:00 A.M. to 3:00 P.M.
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from April 7, 2010 Meeting
- III. Committee Reports
 - a. Legislative
 - b. Research, Education, etc.
 - c. Others
- IV. Work Session on Final Report – Mike Coveyou
- V. Public Comments
- VI. Other Business
- VII. Next Meeting and Adjournment

Chester J. Culver
Governor
Patty Judge
Lt. Governor



Eugene T. Meyer
Commissioner

COMMISSION ON ENERGY EFFICIENCY STANDARDS AND PRACTICES
MEETING NOTICE AND AGENDA
June 2nd, 2010, 10:00 A.M. to 2:00 P.M.
DEPARTMENT OF PUBLIC SAFETY BUILDING, ROOM 125
215 EAST 7TH STREET
DES MOINES, IA

Agenda:

- I. Call to Order
- II. Review and Acceptance of Minutes from May 5, 2010 Meeting
- III. Committee Reports
 - a. Legislative
 - b. Research, Education, etc.
 - c. Others
- IV. Work Session on Final Report – Mike Coveyou
- V. Public Comments
- VI. Other Business
- VII. Next Meeting and Adjournment

**Commission on Energy Efficiency Standards and Practices
October 22, 2008**

Commission Members Present:

Krista Capp
Mike Carroll
Steve Carroll
Larry DeBuse
Phil Delafield
Kathy Draper
Diane Johnson
Lynnae Hentzen
Kevin Nordmeyer
James Stroman
Monica Stone
Kim Willer

Staff Attending:

W. Stuart Crine, Building Code Commissioner
Mike Coveyou, Agency Rules Administrator
Lisa Havel, Clerk Specialist

The meeting was called to order at approximately 10:05 am by Building Code Commissioner Stuart Crine.

Commissioner Crine introduced Eugene Meyer the Department of Public Safety Commissioner, who welcomed the commission.

Commissioner Crine opened the floor for introductions of the commission and staff members.

Clerk Specialist Lisa Havel explained to the commission what is needed for expense reimbursement and the proper way to fill out the administrative forms.

Commissioner Crine described the commission's duties and responsibilities

- The creation of this commission is based in the Iowa Acts of 2008, SF 2386.
- The commission is responsible for
 - The evaluation of energy efficiency standards
 - Developing recommendations for new energy efficiency standards, specifications, or guidelines applicable to newly constructed residential, commercial, and industrial buildings and vertical infrastructure.
 - Developing recommendations for the establishment of incentives for energy efficiency construction projects which exceed currently applicable state and local building codes.
 - Developing recommendations for adoption of a statewide energy efficiency building labeling or rating system for residential, commercial and industrial buildings and complexes.

Commission on Energy Efficiency Standards and Practices

October 22, 2008

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- Obtaining input from individuals, groups, associations and agencies.

Commissioner Crine handed out a rough draft timeline to the commission

- The Commission on Energy Efficiency Standards and Practices will hold their meetings every other month on the 1st Wednesday of the month.
- December's meeting will be held on Thursday the 4th.

Commissioner Crine recognized Agency Rules Administrator Mike Coveyou to give a presentation on Ensuring Energy Efficient Design and Construction which includes an explanation of administrative rulemaking process and background on enactment of Senate File 2386 and 517.

- International Energy Conservation Code
- Discussed the State Energy Code Issues
 - How stringent should the requirements be
 - Should Iowa vary from the International Energy Conservation Code (IECC).
 - Enforcement

Commissioner Crine recognized discussion on committees and assignments

- The commission produced potential subcommittees
 - Building labeling / Rating / Incentives / Goals
 - Research / Survey / Quantification
 - Weatherization / Affordable Housing
 - Enforcement / Compliance / Adoption / Indoor Air Quality

Commissioner Crine adjourned the meeting for lunch at approximately 11:30 am.

Commissioner Crine reconvened the meeting at approximately 12:15 pm.

Sub committees were selected

Building Labeling / Rating / Incentives / Goal Subcommittee

Diane Johnson – Co-chair	Lynnae Hentzen
Kevin Nordmeyer – Co-chair	Kim Willer
Mike Carroll	Steve Carroll
Krista Capp	Monica Stone

Research / Survey / Quantification Subcommittee

Lynnae Hentzen – Co-chair	Phil Delafield
Monica Stone – Co-chair	Diane Johnson
Kevin Nordmeyer	Larry DeBuse

Weatherization / Affordable Housing Subcommittee

Kim Willer – Co-chair	James Strohman
Kathy Draper Co-chair	

Commission on Energy Efficiency Standards and Practices
October 22, 2008
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Enforcement / Compliance / Adoption / Indoor Air Subcommittee
Phil Delafield - Chair
Mike Carroll
Steve Carroll
Krista Capp
Kathy Draper
Larry DeBuse

Commissioner Crine discussed with the Commission goals and objectives.

- The Commission must produce a report for the Governor's Office and Legislation.
- Determine the Benefits of the Energy Codes
 - Use Cost-Benefit to educate
- Determine hurdles to energy code enforcement
 - Getting consistent enforcement
 - Training
 - Alternative to Authority having jurisdiction (AHJ) Inspections
- Education and incentives for consumers and contractors to drive market transformation.
- Develop compliance tools
- Base energy code vs. above code standards
- Voluntary compliance reduces enforcement which reduces cost
- Determine current state of compliance
- Encourage compliance and acceptance of building efficiency features

Commissioner Crine opened the floor for any public comments

- Jeff Geerts from Iowa Department of Economic Development (DED), Community Development division
 - Talked about the DED environmental sustainability initiatives and how it applies to their projects
 - Discussed the threshold that DED projects will need to meet to obtain grants and funds.
- Lee Vannoy from the Department of Natural Resources.
 - Huge potential for reducing energy in both residential and commercial construction
- Nathaniel Baer from Iowa Environmental Council
 - Strongly encourages the Commission to make early action recommendations.

The next meeting of the Commission on Energy Efficiency Standards and Practices will be held on December 4, 2008 in the Department of Public Safety Building 1st floor public conference room. Anyone wishing to participate can do so from there.

The meeting was adjourned at approximately 1:55 pm by Commissioner Crine.

Respectfully Submitted,

Lisa Havel
Clerk Specialist

**Commission on Energy Efficiency Standards and Practices
December 4, 2008**

Commission Members Present:

Krista Capp
Mike Carroll
Steve Carroll
Larry DeBuse
Phil Delafield
Kathy Draper
Diane Johnson
Lynnae Hentzen
Kevin Nordmeyer
James Stroman
Monica Stone
Kim Willer

Commission Members Not Present:

Kathy Draper

Staff Attending:

W. Stuart Crine, Building Code Commissioner
Mike Coveyou, Agency Rules Administrator
Brian Bishop, Construction/ Design Engineer

The meeting was called to order at approximately 10:00 am by Chairman of the Energy Efficiency Commission Stuart Crine.

The minutes of the October 22nd meeting were read. There was one correction by James Stroman. The correction was on page 3 of the minutes. It should read "Governor's office and legislature", not "Governor's office and legislation". Phil Delafield made a **motion** to accept the minutes as corrected. **Second** by Steve Carroll. Motion passed unanimously.

Mike Coveyou reported on the Legislative Interim Committee on Energy Efficiency that met on December 3, 2008. Coveyou explained that the Legislative Interim Committee on Energy Efficiency was interested in energy codes, the Energy Efficiency Commission, a statewide building code, and training for energy codes. Chairman Crine, who also attended Legislative Committee meeting, stated that the Energy Efficiency committee should be thinking of energy efficiency recommendations that could be presented now to the Legislative Committee for consideration of possible legislation during the 2009 session of the legislature.

Mike Carroll asked Mike Coveyou about specific questions or concerns that the Legislative Committee would like the Energy Efficiency committee to address. Coveyou responded that he did not stay for the entire meeting so he did not know all that was decided by the Legislative Committee at the adjournment of the meeting. Steve Carroll responded that he attended the entire meeting and although the Legislative Committee did not have enough members present to vote

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December 4, 2008
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recommendations, they did discuss the use of the Power Fund for the funding of public education for energy efficiency. Steve mentioned that as the Energy Efficiency Commission creates goals and guidelines to present to the Legislature the commission should also show how the goals and guidelines need to be funded.

Phil Delafield also commented on the presentation he gave to the Legislative Committee concerning energy code enforcement. He mentioned that the larger local jurisdictions could likely be able to handle energy code enforcement better than the smaller jurisdictions. Delafield also mentioned that he stressed to the Legislative Committee that the playing field needs to be leveled for the entire state so that a minimum standard is applicable throughout the state for construction code enforcement. Mike Carroll asked Phil about the aspect of voluntary energy code compliance versus energy code enforcement and whether or not there is any incentive to that. Delafield replied that he would like to see a third party that would commission a building to show it meets all of the energy code requirements. Delafield also stated that he mentioned to the Legislative Committee that public education on energy efficiency would be needed to educate consumers on the role of energy efficiency in construction.

Monica Stone discussed the Power Fund and how there is a 2.5 million dollar carve-out to be used by community colleges for energy education. Chairman Crine stated that Bob Mulqueen from the Office of Energy Independence had also mentioned the use of the Power Fund for energy education. Diane Johnson commented that possible funding might be better served by allocating energy education dollars to rural electric cooperatives or municipal utilities rather than community colleges. Diane stated that she felt contractors would associate the utility companies as having more expertise in energy education rather than community colleges. Diane also mentioned that education needs to address consumers and builders/construction officials.

Chairman Crine mentioned that the Legislative Committee asked about who could deliver the training. He recommended that the International Code Council (ICC) would be the best to deliver the training since they publish the adopted energy code and have training programs on the code already established. Crine mentioned that it would be best to tie together those entities that have training dollars available so that were delivering the same education to builders, contractors, and code officials. Diane Johnson mentioned that the ICC would add credibility to the energy code training to help encourage contractors and building officials to attend.

Kevin Nordmeyer mentioned that the Iowa Energy Center could be a source of funding for energy education grants. Nordmeyer mentioned that he has utilized the Iowa Energy Center in the past for green building seminars and the grants are available now. Steve Carroll mentioned that the training must be statewide to accommodate anyone who wants to attend.

Shannon Paseka and Megan Osweiler from the Iowa League of Cities presented a survey that will be sent out to all of the cities of Iowa to gain information about building code and energy code enforcement. Steve Carroll mentioned that the commission should also contact Nathan Bonnett from the Iowa State Association of Counties so that all counties in Iowa receive the survey as well. Shannon then discussed the specifics of the survey with the Commission. Discussion ensued amongst the members and the representatives of the Iowa League of Cities

**Commission on Energy Efficiency Standards and Practices
December 4, 2008
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concerning the survey. Shannon finished the presentation of the survey and noted all changes as requested by the commission. The survey will be changed and the revised survey will be presented to the Commission either via email or at the next Commission meeting before being delivered to the cities.

Chairman Crine recessed the meeting the meeting for lunch at approximately 12:45 pm. Chairman Crine reconvened the meeting at approximately 1:15 pm.

Chairman Crine spoke about the 2009 International Energy Conservation Code (IECC) and the final action code hearings recently held in Minneapolis, MN. Crine mentioned the 30 percent solution that was proposed to be included in the 2009 IECC. The 30 percent solution was a proposal to be voted on during the final action code hearings of the 2009 IECC that would have increased the energy efficiency of buildings by 30 percent more than the 2006 IECC. The 30 percent solution proposal was not approved at the final action hearings, however individual parts of the proposal were approved and it is estimated that the 2009 IECC will end up providing about 20 percent more energy efficiency than the 2006 IECC. Crine mentioned that the state plans to adopt the 2009 IECC on January 1, 2010. Diane mentioned that any proposed training should coincide with the adoption of the new energy code.

Chairman Crine next asked the subcommittees to provide a report to the rest of the Commission. Only two subcommittees had the chance to meet; they were the Building Labeling/ Rating/ Incentives/ Goals Subcommittee and Weatherization/Affordable Housing Subcommittee.

Kevin Nordmeyer of the Building Labeling Subcommittee provided a report to the Commission concerning the subcommittee's meeting. The Building Labeling Subcommittee would like to investigate all of the building rating systems available, any tools available to help evaluate buildings, and ways to provide incentives to achieve energy efficiency. Phil Delafield inquired about "Green Mortgages" as an incentive. Kevin Nordmeyer responded that the subcommittee needs to investigate all incentives available.

Kimberly Willer of the Weatherization Subcommittee presented the goals of this subcommittee. This subcommittee set up five goals and they are as follows:

- What is out there now?
- Education
- Old vs. New
- How Enforced/ Evaluated?
- Affordable Housing

Kimberly asked the Commission if anyone else would be interested in joining the Weatherization subcommittee. James Strohman also reported about the goals of the subcommittee and affordable housing.

Chairman Crine suggested to the Commission that any subcommittee that would want to set up a meeting or conference call should let him or Brian know so that they can accommodate that request.

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December 4, 2008
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Chairman Crine discussed the goals and objectives of the Commission. Crine asked the commission for any suggestions of goals and objectives that should be the priority of the Energy Efficiency Commission. Phil Delafield stated that he does not feel that the Commission has an adequate measure of where the state is with energy efficiency. Phil asked if anyone had access to a previous DNR report from Eric Mackela concerning energy efficiency and building construction. Phil felt that any recommendations should not be made until the Commission has sent out the energy/ building code survey to the cities and counties so that the commission could obtain a baseline on energy code rather than making assumptions. The consensus of the Commission was to wait for the survey to be sent out to the cities and counties before any goals and objectives are forwarded to the legislature.

Chairman Crine asked the Commission members to add the subject of energy code training to one of the subcommittees. The Commission members agreed to add energy code training to the Research/ Training/ Quantification subcommittee.

Steve Carroll added that the Commission should present to the legislature an endorsement of the 2009 International Energy Conservation Code. Chairman Crine agreed that it would be a good idea for the Commission to show support for the 2009 IECC, but it would be more effective at a date closer to the anticipated adoption date of the code.

The next meeting of the Commission on Energy Efficiency Standards and Practices will be held on February 4, 2008 in the Department of Public Safety Building 1st floor public conference room.

The meeting was adjourned at approximately 2:00 pm.

Respectfully Submitted,

Brian Bishop
Construction /Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
February 4, 2009**

Commission Members Present:

Mike Carroll
Steve Carroll
Larry DeBuse
Phil Delafield
Lynnae Hentzen
Kevin Nordmeyer
James Strohman
Kim Willer

Commission Members Not Present:

Kathy Draper
Diane Johnson
Monica Stone
Krista Capp

Staff Attending:

W. Stuart Crine, Building Code Commissioner
Mike Coveyou, Agency Rules Administrator
Brian Bishop, Construction/ Design Engineer

The meeting was called to order at approximately 10:00 am by Chairman Stuart Crine.

The minutes of the December 4, 2008 meeting were read. Chairman Crine announced that Amy Infelt will be filling the seat vacated by Kathy Draper. Kathy Draper had to leave the Commission due to employer commitments. There was one correction to the minutes by Chairman Crine. The correction was on page 1 of the minutes. Kathy Draper was not present, but yet her name still appeared under the "Members Present" heading. This item will be corrected. Phil Delafield made a **motion** to accept the minutes as corrected. **Second** by Larry DeBuse. **Motion** passed unanimously.

Chairman Crine asked Lisa Havel to speak to the Commission members about the State of Iowa travel payments and how to properly fill those forms out. Additionally she spoke about the guidelines of the State of Iowa travel payments and documentation required for payment.

Shannon Paseka, from the Iowa League of Cities and Mike Coveyou discussed the status of the survey of the local government code adoptions. Coveyou talked about the timeline of the survey. He discussed several timelines and advised that the survey should not go out any later than June. Coveyou also mentioned that Chairman Crine has a question into the Assistant Attorney General's office to clarify whether local governments are required to enforce the provisions of the State Energy Code.

Commission on Energy Efficiency Standards and Practices
February 4, 2009
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Shannon distributed to the Commission members a revised survey that reflected the changes to the survey discussed at the December meeting. The Commission went through the current survey and discussed various changes. The survey will be turned over to the Research & Survey subcommittee to make the final changes before it is sent out to cities and counties. The subcommittee will inform the Commission to when the survey is ready and will let the Commission members review it before it is released to the cities and counties.

Chairman Crine discussed that he had been contacted by the Department of Economic Development regarding the possibility of funding energy code training for code officials. Crine mentioned that he was asked for a budget to present to Economic Development. Chairman Crine received some pricing information from the International Code Council (ICC). The training would cost \$2200 per day. Total cost of the training for five one day training days to be located throughout the state would cost approximately \$15 to \$20 thousand dollars. This budget would not include the cost of room rental, lunch, etc. This budget only represents the cost of the instruction and class materials only. Chairman Crine mentioned that any training on the energy code should cover the 2009 International Energy Conservation Code (IECC). ICC mentioned that they would not have a class ready for the 2009 IECC until late summer or early fall. Crine mentioned that the issue of whether local code officials are required to enforce the state energy code needs to be answered before the classes are offered as this may significantly boost the attendance. Crine also discussed that he did not know the deadlines for the possible funding of the training. The utilities may also be able to provide some funding for energy code training, but this is still a work in progress.

Steve Carroll inquired about having the Iowa Energy Center funding some of the training. Mike Coveyou stated that any possible funding is extremely tentative. Kevin Nordmeyer indicated that he will be the new director of the Iowa Energy Center. He begins as the new director on March 1, 2009. Nordmeyer indicated that he had not looked at the Energy Center's budget, but he did feel that the Iowa Energy Center could be an avenue for funding of energy training.

Phil Delafield mentioned the idea of credentialing local code enforcement officials in the energy code/building code to convey creditability to those who are requesting the energy inspections. Mike Coveyou suggested that credentialing of inspections could be a long term goal of the Commission.

Coveyou discussed the possibility of having the Iowa Dept. of Public Safety provide the credentialing of energy/building code inspectors. Chairman Crine spoke of credentialing of fire and building inspectors in the State of Tennessee and how it actually raised the creditability and awareness of the building and fire officials.

Delafield also shared the idea of a self inspection/certification program. This would be utilized for areas that do not have any local code enforcement and have never been regulated.

Steve Carroll asked Chairman Crine when the state intends to adopt the 2009 International Energy Conservation Code (IECC). Crine responded that the State intends to adopt the 2009 IECC on January 1, 2010. This adoption has many factors that weigh into the adoption, with the most important being available funding. Mike Coveyou mentioned that the Federal economic stimulus bill that was recently passed by the US Congress provides additional funding for states

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that adopt the ASHRAE 90.1 2007 or the 2009 IECC. The language of the economic stimulus bill may require an earlier adoption of the 2009 IECC. Chairman Crine tabled the discussion on the 2009 IECC until later in the meeting.

Chairman Crine directed the Commission to the next item on the agenda, which were recommendations for possible legislation. Senator Bolkcom had asked for items that could be introduced to the legislature for possible energy legislation. Steve Carroll distributed an article discussing possible legislation in South Dakota that would require real estate transactions to provide disclosure of energy usage for the property that was being sold. Discussion by the Commission members ensued on this topic.

Chairman Crine recessed the meeting for lunch at approximately 11:45 pm.
Chairman Crine reconvened the meeting at approximately 12:24 pm.

Chairman Crine reconvened the meeting discussing possible items for legislation. After much discussion, the Commission members agreed upon the following items for possible legislation.

Possible Items for Legislation

- Property tax credit or incentives if third party approves structure as meeting the state energy code
- Add language to seller's disclosure form that structure meets energy code or seller provides energy usage during a real estate transaction
- Clarify responsibilities of local jurisdictions for energy code enforcement.
- Multi-family/ Renting Incentives for energy code compliance
- Plan for better public education
- Credentialing building inspectors, designers, contractors
- Create/strengthen liability for misrepresentation of energy performance.
- Adoption of 2009 International Energy Code Council (IECC)

Chairman Crine opened the floor for the reports of the various subcommittees. Lynnae Hentzen discussed the Research and Education subcommittee. The subcommittee created goals and focused on research that needed to be completed to locate a baseline of where energy efficiency is in Iowa. The research and education subcommittee will meet on March 11, 2009 at 10 am to 11:30 am. This subcommittee will also expand to members outside the Commission. No other subcommittees met prior to this meeting.

The Commission revisited their goals and objectives.

Chairman Crine discussed the Federal Stimulus Bill and how it will affect energy efficiency in Iowa. Mike Coveyou spoke on the stimulus bill and stated that in order for states to be eligible for additional grants they must meet three provisions that deal with the energy code. They are as follows:

- Adopt an residential energy code based on the most current published standard

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- Adopt a nonresidential energy code such as ASHRAE 90.1 2007 or 2009 IECC
- Develop a plan that would achieve 90% compliance with energy code standards within 8 years of enactment

An update of the sustainable design standards was provided by Mike Coveyou. Standards need to be in place by July 1, 2009. ASHRAE 189 is a sustainable design standard code that is being developed and will not be available until late 2010 or 2011. The NAHB/ICC standard has also been published recently. Coveyou stated that no standards have been selected at this time, and any standards that are selected will be chosen on an interim basis and will be revisited in the future. Mike Carroll stated that he would like to see these standards as goals rather than requirements.

The next meeting of the Commission on Energy Efficiency Standards and Practices will be held on April 1, 2009 in the Department of Public Safety Building, 1st floor public conference room.

The meeting was adjourned at approximately 1:42 pm.

Respectfully Submitted,

Brian Bishop
Construction /Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
April 1, 2009**

Commission Members Present:

Mike Carroll
Steve Carroll
Larry DeBuse
Phil Delafield
Lynnae Hentzen
Kevin Nordmeyer
Kim Willer
Krista Capp
Diane Johnson
Monica Stone
Amy Infelt

Commission Members Not Present:

James Strohman

Staff Attending:

W. Stuart Crine, Commission Chairman and State Building Code Commissioner
Mike Coveyou, Agency Rules Administrator
Brian Bishop, Construction/ Design Engineer

The meeting was called to order at approximately 10:05 am by Chairman Crine.

Chairman Crine introduced Amy Infelt as a new Commission member. Amy is a professional engineer from Cedar Rapids. Amy will be filling the seat vacated by Kathy Draper.

The minutes of the February 4, 2009 meeting were read. Kimberly Willer made a **motion** to accept the minutes as corrected. **Seconded** by Steve Carroll. **Motion** passed unanimously.

Chairman Crine moved to the next agenda item to discuss current and future legislation. This included House File 780 which moved the State Energy Office from the Department of Natural Resources to the Office of Energy Independence. Chairman Crine turned the discussion over to Monica Stone to elaborate on the energy office transfer. Monica stated that the bill was moving forward and was located in the House appropriations committee. Monica stated that the transfer of the energy office is effective upon enactment. Mike Coveyou also joined the discussion of the legislative update. Mike commented about the Power Fund. . Mike discussed the Energy Block Grants that are created by the Federal funding stream for the State Energy Plan. Monica further discussed the Power Fund and how \$25 million dollars a year has been allocated to it through 2011. Mike stated that the Renewable Fuels Association Bill was passed. This bill allowed more retailers to be able to dispense E-85 fuels.

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April 1, 2009

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Next the discussion moved to future energy legislation. Coveyou discussed the possibility of removing the energy code exemption for the remodeling of 1 and 2 family dwellings. Phil Delafield asked about changes of occupancy and how they relate to the State Energy Code. Crine, Coveyou, and Bishop commented on this matter. Coveyou also discussed the creation of an electrical transmission authority. This authority would allow Iowa to ship wind energy out of state. Diane Johnson commented that each state in the Midwest is trying to set up similar wind energy transmission authority bills and she does not see the viability of these bills unless it is handled at a federal level.

Steve Carroll asked Crine if he had received a response from Senator Bolckcom regarding his letter outlining potential energy legislation letter. Crine stated he had not heard back from Senator Bolckcom and that it appears that he may have mistakenly sent out a draft of the letter to both the Senator and Commission members rather than the final letter. Crine agreed to track this down and make sure that the final letter is sent to the Senator and members.

Chairman Crine moved to the next item on the agenda which was discussion on the 2004 DNR survey of energy code compliance. Crine asked Phil Delafield to discuss his understanding of the survey. Delafield stated that the survey answers some of the questions on how well energy code compliance is achieved in the regulated areas and the unregulated areas. Delafield further explained that the results show that of the 65 newly constructed single family homes surveyed, most met the 2000 International Energy Conservation Code requirements. The report indicated that while many of the homes did not comply with the energy code per the plans, that when they were built in the field, changes were made by the builder to bring the home into compliance with the energy code. The Commission further discussed the survey.

Kevin Nordmeyer asked Delafield about the energy auditing process of the DNR survey. Delafield responded that the study looked at the energy usage, building envelope, mechanical systems, and prescriptive methods of the energy code. Delafield also explained that one of the barriers to improved energy code performance is the non-regulated areas versus the regulated areas. Delafield stated that one justification to improving compliance in the non-regulated areas is to level the playing field across the state between regulated and non-regulated areas.

Delafield initiated a discussion on REScheck and COMcheck and the use of these tools for local building code departments and how the City of Des Moines uses these tools for the enforcement of the energy code. Chairman Crine asked the Commission if they would like a demonstration on REScheck and COMcheck at the next meeting and the Commission agreed to take a look at these tools.

Crine passed around a copy of the Commercial and Residential Energy Toolkits that were made available in 1999 from the DNR. The Commission examined these documents.

Discussion also ensued concerning farms and agricultural use buildings. Mike Coveyou pointed out to the Commission that the State Energy Code only applies to buildings that are intended for human occupancy. Buildings such as hog confinements and other buildings housing livestock are exempt from the State Energy Code.

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The Commission moved to the next item on the agenda which was the Survey of Local Code Adoptions. Shannon Paseka, from the Iowa League of Cities and Mike Coveyou discussed the status of the survey of local government code adoptions. Mike and Shannon went through the survey as developed by the research and education subcommittee. Changes were made by the Commission to the wording of some of the items. Shannon has been working with Nathan Bonnett with the Iowa Association of Counties so they could send the survey to all 99 counties as well. Coveyou talked about the timeline of the survey. Shannon indicated that she will inform the Commission members of when the survey will be sent out to the cities.

Chairman Crine recessed the meeting for lunch at 12:06 pm.
Chairman Crine reconvened the meeting at 12:43 pm.

Chairman Crine opened the floor for the reports of the various subcommittees. Lynnae Hentzen provided the report for the Research & Education Committee. Hentzen handed out notes from the committee's March 25th meeting and provided a report. Hentzen discussed the local code adoption survey, sustainable design standards, past DNR studies to build on, and the applicability of the State Energy Code and local enforcement. Stuart Crine provided the Commission with an informal opinion from Assistant Attorney General Scott Galenbeck. Crine explained that this opinion states that local officials, who have an existing code enforcement program, are required to enforce the State Energy Code. Hentzen also discussed new construction, renovation and change of occupancy. Delafield expanded on changes of occupancy and how the City of Des Moines has dealt with the energy code. The Commission discussed changes of occupancy and how the International Energy Conservation Code and the State Energy Code define the applicability of changes of occupancy. Hentzen indicated that Labeling Committee may merge with the Research Committee. Kevin Nordmeyer added that there are statistics available from the American Institute of Architecture that show that by 2030, three quarters of the United States building stock will be new or renovated. Nordmeyer added that this statistic shows the importance of the work of the Energy Efficiency Commission.

The next item on the agenda was the Federal Stimulus Bill. Crine recognized Monica Stone to discuss the Stimulus funding. Stone indicated that there will be \$25 million dollars available for competitive funding for energy projects in the state. Stone provided a break-down of how the funding will be utilized. She added that the deadline for the State Energy Program money must be obligated by September 30, 2010.

Sustainable design standards were discussed by Mike Coveyou. There will be a public hearing concerning sustainable design standards on April 14th in room 125 of the DPS Building. Coveyou indicated that the design standards need to be in place by July 1, 2009. The proposed design standards are LEED Gold and compliance with ASHRAE 90.1 for commercial buildings and Iowa Green Streets Criteria as published by the Iowa Department of Economic Development for residential construction. Nordmeyer indicated that there is a new version of LEED that will be out later this month. Discussion ensued concerning the sustainable rules.

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Chairman Crine addressed a few items under "Other Business" Crine mentioned that he recently had a meeting with Lynnae Hentzen and Bob Brice with Cenergy, Inc. concerning conflicts of interest involving energy raters. Crine stated that they discussed energy raters that are installing mechanical systems and then certifying that the mechanical system meets the energy standard.

Crine also discussed the use of third party energy raters to perform energy code inspections in lieu of local code officials. Crine indicated that even if the all of the local code officials wanted to inspect energy code provisions many areas of the state would still have no energy code enforcement. Discussion will ensue at the next meeting

Kevin Nordmeyer discussed the B3 protocol and the AIA 2030 challenge. Nordmeyer stated that the B3 program is a benchmarking program for the State of Minnesota. He has set up a meeting with Minnesota officials to discuss this program. Nordmeyer mentioned that he would like to set up a meeting with these officials to talk to the Commission.

Crine discussed how the Minnesota State Building Code and Fire Marshal have delayed the adoptions of the 2009 I-Codes until 2012 due to economic factors.

The next meeting of the Commission on Energy Efficiency Standards and Practices will be held on June 3rd, 2009 in the Department of Public Safety Building 1st floor public conference room.

The meeting was adjourned at approximately 2:01 pm.

Respectfully Submitted,

Brian Bishop
Construction /Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
June 3, 2009**

Commission Members Present:

Kim Willer
Kevin Nordmeyer
Lynnae Hentzen
Monica Stone
Larry DeBuse
Phil Delafield
Mike Carroll
Steve Carroll
James Strohman
Krista Capp
Amy Infelt

Diane Johnson by phone

Staff Attending:

W. Stuart Crine, Commission Chairman and State Building Code Commissioner
Mike Coveyou, Planning & Research Administrator
Brian, Bishop, Construction/Design Engineer
Cindy Meyerdirk, Clerk Specialist

The meeting was called to order at approximately 10:06 a.m. by Chairman Crine.

Chairman Crine introduced Cindy Meyerdirk as the new staff member who will be responsible for taking the minutes for future Commission Meetings.

Chairman Crine asked if any changes were needed on the April 1, 2009 meeting minutes. Mike Coveyou asked that where it states that Coveyou "discussed the Energy Block Grants that are created by the Federal funding stream for the State Energy Plan", it should state, "Energy Block Grants that are created by the Federal funding stream from the stimulus bill". He also asked to change "Coveyou also discussed the creation of an electrical transmission authority" to "mentioned a bill that would create an electrical transmission authority".

Mike Carroll made a **motion** to accept the minutes as corrected. **Seconded** by Kim Willer. **Motion** passed unanimously.

Second item on the agenda was the review of the Legislative Session, Chairman Crine asked Monica Stone and Mike Coveyou to comment.

Mike Coveyou mentioned that:

- The Bio Diesel Bill did not pass.
- The Bill to transfer the energy responsibilities from the Department of Natural Resources to the Office of Energy Independence did pass.

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Monica Stone reported the new State Energy Office for both policy and program delivery as well as the power fund will be at the Office of Energy Independence as of July 1, 2009.

Chairman Crine asked Kevin Nordmeyer to explain the creation and purpose of the ad hoc Green Jobs Training Committee to the Commission. Nordmeyer explained that the committee grew out of discussions within the State Energy Council regarding concerns about an uncoordinated effort to allocate and spend funds on training for “Green Jobs” such as energy auditors, inspectors, builders and others. The group has met several times and is working to identify both the needs and who is able to fill those training needs in the rapidly changing area of green jobs.

Shannon Paseka, Megan Osweiler from the Iowa League of Cities and Nathan Bonnet from the Iowa State Association of Counties reported on the Survey of Local Government Code Adoptions. Out of 947 incorporated cities, about 50% responded to the survey. The members were given handouts with the results and asked to review them and prepare any questions for the next Commission meeting.

Bob Brice and Tim Hanes from Cenergy, Inc. delivered a presentation on Energy Compliance Auditing.

Some of the Topics were:

- HERS Rating (Home Energy Rating System)
- 360 Degree View of the Rating/Auditing System
- Benefits & Potential Pitfalls
- The Real Story about HVAC Systems
- What/Who are these Raters
- Conflicts of Interest What to do?
- Rebates / Incentives / Tax Credits

The Commission then discussed some of the issues concerning energy audits and who or what body should play a role in addressing them.

Chairman Crine recessed the meeting for lunch at 12:38 p.m.

Chairman Crine reconvened the meeting at 1:22 p.m.

Steve Carroll suggested that a count on HERS ratings be taken for the last 2, 3, 4 years in Iowa as well as for new housing.

To facilitate the drafting of several legislative proposals, the Commission recommended the formation of a new committee to carryout such work. The following members volunteered for the committee and a meeting will be scheduled before the next Commission meeting.

- Steve Carroll
- James Strohman
- Mike Carroll
- Phil Delafield
- Kim Willer
- W. Stuart Crine, Chair

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Due to the time, both the presentation on RESCheck and ComCheck and the discussion on Potential Changes to Life Cycle Cost Analysis Program were put on hold until the next meeting.

Chairman Crine solicited public comments from the audience and there were none.

Mike Coveyou provided an update on the adoption of Sustainable Design Standards.

The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on August 5, 2009.

The meeting was adjourned at approximately 2:09 p.m.

Respectfully Submitted,

Cindy Meyerdirk
Clerk Specialist

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
August 5th, 2009**

Commission Members Present:

Monica Stone
James Strohman
Krista Capp
Steve Carroll
Phil Delafield
Kim Willer
Amy Infelt
Kevin Nordmeyer

Commission Members Absent:

Diane Johnson
Larry DeBuse
Lynnae Hentzen
Mike Carroll

Staff Present:

Stuart Crine, Commission Chairman and State Building Code Commissioner
Mike Coveyou, Planning & Research Administrator
Brian Bishop, Construction/Design Engineer
Cindy Meyerdirk, Clerk Specialist

The meeting was called to order at approximately 10:05 am by Chairman Crine.

Chairman Crine asked if there were any comments or changes to the June 3rd, 2009 meeting minutes. There were none, Kim Willer made a **motion** to accept the minutes, **seconded** by Monica Stone. **Motion** passed unanimously.

Shannon Paseka from the Iowa League of Cities presented additional information and analysis on the Building and Energy Code Survey. The information provided to the Commission members included the survey questions and responses broken down by percentages of city populations.

Discussion by members of the Commission ensued. Phil Delafield inquired about a breakdown on the counties after reviewing the information on the cities. Shannon responded that she could gather the information for the counties, but there was not a lot of county data available due to many of the counties not responding. Steve Carroll commented that the survey indicated many municipalities performed permitting, but not many communities performed active enforcement of the energy code. Delafield inquired about the enforcement and level of compliance of the State Energy Code as it relates to commercial buildings. Crine responded that it does not work well and it is weak at best. Chairman Crine recognized the Honorable Senator Joe Bolckcom, who was in attendance at the meeting. Senator Bolckcom praised Shannon Paseka and the Commission for the work that had been done on the survey. Steve Carroll inquired about Bob

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Brice with CENERGY on the subject of the numbers of HERS ratings that have been completed. Chairman Crine responded that he would try to provide that information to the Commission at a later date.

Chairman Crine again recognized Senator Bolkcom. The Commission introduced themselves and gave the organizations which they represent. Senator Bolkcom told the members that he was present as a staff member from the University of Iowa with an interest in energy issues and wanted to learn more about the local policy issues that relate to energy efficiency for an upcoming conference that he is helping to plan in mid October.

Discussion continued on the survey. Kim Willer inquired on the possibility of asking the cities if they have adequate staffing for additional enforcement of energy and building codes. Chairman Crine felt that the Iowa Association of Building Officials would be a good resource to answer this question. Monica Stone interjected that there are funding dollars available through the ARRA funding and through the Iowa Power Fund that local communities could use for additional staffing for code enforcement. Phil Delafield stated that many of the smaller communities could not justify a full position for energy code enforcement.

The Commission discussed the issue of asking the communities what barriers they face and to get a description of what it would take for their community to better engage in the enforcement of the energy codes. Shannon responded that at the last meeting of the Commission she provided a list of barriers that the cities indicated kept them from enforcing the energy code. Chairman Crine ended this discussion about how the State Building Code Bureau and the Iowa Association of Building Officials were working on a grant application from the Department of Economic Development to put on energy code classes across the state for building code officials.

Chairman Crine moved to the next item on the agenda which was committee reports.

- Chairman Crine stated that Lynnae Hentzen, who was absent from the meeting, had reported that her group was not able to meet.
- Kevin Nordmeyer updated that a sub-group of the State Energy Council has begun meeting and to work on coordinating Green Job Training efforts. The Department of Economic Development has provided funding to the Center On Sustainable Communities (COSC) to perform statewide education efforts dealing with sustainable building practices. The investor owned utilities have also committed some funding for COSC to do some quality installation education for HVAC contractors between now and November.

Chairman Crine went over the recommended legislative proposals from the Commission's Legislative Committee meeting. He did not ask the full Commission to vote on the proposals as they needed additional research and revision. The three legislative proposals suggested by the Committee were as follows:

- 1) Add energy usage questions to the disclosure statement for real estate transactions.
 - As a part of the "Seller Disclosure of Property Conditions", the seller of any existing real estate would be required to provide utility usage records for the past twenty-four (24) months or for the total number of months owned, whichever is less. If the

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- heating fuel for the property is not provided by a utility, then the seller must provide an estimate of the monthly fuel costs for the same time period.
- The seller must provide a list of all energy efficient upgrades performed on the property during the term of their ownership.
 - For new construction: The builder must provide a written statement to the buyer that the home meets or exceeds the current edition of the State Energy Code.
 - The seller of a home must have an energy audit conducted by an independent, third-party auditor and the results of the audit must be provided as a part of the "Seller Disclosure of Property Conditions". Minimum competency criteria for such auditors would be established by some state agency.
- 2) Consider legislation that focuses on existing one and two family housing stock.
- Amend Iowa Code 103A.8A to remove the exemption for the renovation of one and two family dwellings from compliance with the State Energy Code. NOTE: This action may be required by the Federal Stimulus Act.
- 3) Dramatically increase funding for public education on energy efficiency and energy codes.
- Allocate funds to the Iowa Energy Center or similar entity, specifically for the education of the public on the importance of and how to improve energy efficiency; including a focus on the potential pay-back for energy efficiency efforts. This would involve all forms of media such as TV, radio, newspapers, internet, and printed material.
 - Mandate an age appropriate curriculum (minimum 15 hours per year) on energy efficiency for middle school grades. Development and distribution of curriculum materials to schools would likely be needed as a part of this proposal.

The members discussed the legislative proposals at length. The discussion ended with the committee scheduling another meeting to further define the legislative proposals. James Strohman asked if Senator Bolkcom had any suggestions for the direction of the legislative committee. Senator Bolkcom did suggest getting a representative of the Commission to work with the realtors and banking industry, in regards to the home energy audit and real estate disclosure form, to get those industries on board prior to presenting this idea to the legislature. Senator Bolkcom also suggested raising awareness on all of these issues to gain more public support and understanding.

Chairman Crine recessed the meeting for lunch at approximately 11:55 a.m.

Chairman Crine reconvened the meeting at approximately 12:35 p.m.

Chairman Crine and Mike Coveyou provided a report on their recent attendance at Energy Codes 2009 that was held in Portland, Oregon. Energy Codes 2009 is an annual event hosted by the U.S. Department of Energy and presents topics concerning building energy codes. Mike Coveyou explained that one of the major topics of the conference was the plan that needed to be developed by the states to ensure 90 percent compliance of the energy code within eight years in order to comply with the requirements of the ARRA funding. Mike turned the discussion over to

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Monica to discuss an update on the Federal Stimulus bill. Monica Stone reported approvals were coming in from the Department of Energy for the various funds that are appropriated to the state, the most recent being a 3.8 million dollar fund for energy star appliance rebates.

Chairman Crine introduced Lee Vannoy, P. E. to the Commission. Lee is a Senior Environmental Engineer with the Office of Energy Independence. Lee is responsible for reviewing the Life Cycle Cost Analysis that is required when public buildings are newly constructed or undergo major renovations. Mr. Vannoy presented an overview of the Life Cycle Cost Analysis program to the Commission. He also went over changes on the Life Cycle Cost Analysis Program that were made last summer and went into effect January 1, 2009. At the conclusion of the presentation, Chairman Crine asked Lee if he felt any changes were needed to the Life Cycle Cost Analysis (LCCA) program. Lee felt that two areas that needed change would be better enforcement of the LCCA and the definition of renovation within the life cycle cost analysis legislation. Chairman Crine commented that any changes needed for the life cycle cost analysis program could be sent to the Commission for review. Lee mentioned that there has been an increase in the number of LCCA submittals in the past year.

Chairman Crine recognized Brian Bishop, a member of the State Building Code Bureau staff, to give a presentation on RES-Check and COM-Check. RES-Check and COM-Check are computer programs created and supported by the U.S. Department of Energy, that allow designers to input details of their project to prove energy code compliance. Brian provided an overview of both RES-Check and COM-check to the members of the Commission. Brian indicated that these programs are very useful for both the designer to show compliance and for the code official to verify compliance with the energy code. Chairman Crine indicated that these are very useful tools and that making these a requirement for plan submittal at the State Building Bureau may be discussed in the near future.

There were no public comments or other business.

The meeting was adjourned at approximately 1:43 p.m. The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on October 7, 2009.

Respectfully Submitted,

Cindy Meyerdirk
Clerk Specialist

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
October 7th, 2009**

Commission Members Present:

Monica Stone
James Strohman (via phone)
Steve Carroll
Kim Willer
Amy Infelt
Lynnae Hentzen (via phone)
Kevin Nordmeyer
Larry DeBuse

Commission Members Absent:

Diane Johnson
Phil Delafield
Krista Capp
Mike Carroll

Staff Present:

Stuart Crine, Commission Chairman and State Building Code Commissioner
Mike Coveyou, Planning & Research Administrator
Brian Bishop, Construction/Design Engineer

The meeting was called to order at approximately 10:10 am by Chairman Crine.

Chairman Crine asked if there were any comments or changes to the August 5th, 2009 meeting minutes. There were none, Amy Infelt made a **motion** to accept the minutes, **seconded** by Steve Carroll. **Motion** passed unanimously.

Chairman Crine announced to the members of the Commission that Diane Johnson has resigned from the Commission due to her work commitments. Crine stated that he will work with the Iowa Association of Municipal Utilities to find a replacement for Johnson's vacated seat.

Chairman Crine addressed all members of the Commission concerning the timeline. The Commission will cease on June 30, 2010. Crine stated that there are only four regularly scheduled meetings remaining until the cessation of the Commission. The Commission must provide a report to the Governor and Legislature by January 1, 2011. Crine stated that it would be optimal to have the report completed prior to the end of the Commission. Crine further stated that the Commission may need to start meeting more frequently, such as monthly rather than every other month.

Crine recognized Monica Stone, Commission member and Policy and Communication Director for the Office of Energy Independence (OEI), to discuss the Building Energy Smart (BEST) program that OEI is re-introducing. The program was previously called the Iowa Energy Bank.

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Monica provided a brief synopsis of the program to the Commission members. Stone commented that this program helps public and non-profit organizations identify and implement energy efficiency improvements in their facilities. Energy efficiency projects are identified and an analysis is done by a consulting engineer that the program helps the facility obtain. The BEST program can provide financing for energy efficiency projects that are identified for these facilities. Larry DeBuse asked Monica if this program was available for new buildings. Monica responded that this program is available for new construction. She provided an example of how a Life Cycle Cost Analysis may increase a project's cost and this program would be one way to finance that cost. Chad Kleppe from the Master Builders of Iowa asked Monica what type of marketing would be performed for this program. Monica responded that OEI has hired The Energy Group as a consultant for energy efficiency marketing. Monica also spoke about the how the building experts and engineering professionals are chosen to work for this program. The building experts and engineering professionals are pre-qualified by the BEST program by submitting an application indicating their experience on energy efficiency projects. Amy Infelt commented that the previous Energy Bank process documentation was not practical. Amy commented that she hoped that the BEST program would provide a more practical approach for documentation. Monica responded that the process is being evaluated for the BEST program and The Energy Group will perform the initial walk-through evaluations. Larry DeBuse also inquired about the financing available for these projects. Monica responded that the financing for public projects is tied to the "A" rated general bond index and the interest rate is dependent on the market, but it is about 3.75%. Discussion on this program continued between the members of the Commission.

Monica Stone also reported on the Green Construction Training Committee and the Green Jobs Task Force. The committee started meeting first as an ad hoc group from members of the State Energy Council. The committee was created to coordinate efforts on green construction training between state agencies, community colleges, etc. The work of this committee has slowed due to the development of the Green Jobs Task Force. The Governor created the Green Jobs Task Force with the signing of Executive Order 16. The task force involves members from the Office of Energy Independence, Department of Economic Development, community colleges, private colleges, Department of Transportation, Board of Regents, Iowa Energy Center, and Department of Public Safety. The task force is charged with developing green jobs in Iowa. The Green Jobs Task Force held a symposium on September 10th to gather input for a green jobs plan. The green jobs plan will be submitted to the Governor on October 9th. The green jobs plan will be used to help write a grant application from the U.S. Department of Labor for future funding for green job programs.

Chairman Crine recognized Mike Coveyou, Planning and Research Administrator for the Department of Public Safety, to discuss the state's adoption of the 2009 International Energy Conservation Code. Coveyou explained that a notice of intended action has been filed to update the state building code and state energy code. Included in the notice of intended action is the adoption of the 2009 International Energy Conservation Code (IECC). The proposed building code and energy code will be available for public comment at three public hearings. The three public hearings will be held at locations throughout the state starting in Des Moines on October 13th, Carroll on October 14th, and Cedar Rapids on October 15th. Coveyou mentioned that the

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state building code and mechanical code were also being adopted and updated at this time, which will make all of the adopted codes compatible. The energy code applies statewide and references portions of the mechanical code, and these documents need to be compatible to allow the codes to be adequately enforced. The code adoption is intended to go in effect on January 1, 2010.

Mike Coveyou also reported on the status of sustainable design standards for the State of Iowa. Coveyou stated that he had a request to use the Green Globes format for sustainable design standards. He also discussed creating separate standards for web portal and data centers due to the difficulty of these types of businesses meeting the requirements of LEED v3.0. LEED v3.0 would not exempt process energy from meeting the requirements of the rating systems. Process energy was exempt in previous versions of LEED and data centers contain large amounts of process energy. Coveyou also discussed the federal Waxman-Markey bill that contains language concerning a minimum energy code set by the federal government. The language within the legislation also contains requirements for a level of compliance through enforcement of energy codes.

Chairman Crine recognized Kevin Nordmeyer to discuss the Architecture 2030 initiative. Nordmeyer explained that Architecture 2030 was created by Ed Masseria, an architect from New Mexico, who had written many books on passive design and similar topics. Architecture 2030 establishes goals for different types of buildings to be carbon neutral by 2030. The measures are determined by kBtu of energy usage per square foot of building area. The American Institute of Architects has adopted this as a driving force for optimizing energy efficiency. Nordmeyer mentioned that the state of Minnesota is pursuing the analysis of this program to be incorporated into their statewide design standards.

Chairman Crine discussed the Midwest Governor's Association Energy Efficiency Advisory Group. Crine provided a handout of some items that the Group identified as policy options on energy efficiency topics. Some of the policy options included enhanced enforcement and mandatory training related to building energy code implementation and strengthening building energy codes and appliance standards.

Chairman Crine asked for committee reports from all of the active committees. Mike Coveyou provided a handout on potential legislative concepts for two of the items the Legislative committee had identified. The first legislative concept dealt with the disclosure of utility costs prior to real estate transaction. The second concept dealt with deleting the current exemption from the applicability of the State Energy Code to remodeling or renovation of one or two family residences. Mike also included a legislative concept authorizing the State Building Code Commissioner to offer energy code training to local building officials and to persons who may enforce the building code under contract with a code enforcement authority. Chairman Crine asked the legislative committee to look over the concepts for review and recommend any revisions. The Commission could then vote on these legislative ideas at the next meeting to decide if they want to move forward with the legislative proposals.

Lynnae Hentzen provided the report for the Research and Education Committee. She gave a summary of the committee conference call that took place the week before the Commission

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meeting. The committee discussed the concept of accommodating future load growth by improved energy efficiency and the use of renewable energy. Lynnae mentioned that OEI, Midwest Energy Efficiency Alliance, and the Investor Owned Utilities had information regarding energy usage baselines. The committee also discussed what needed to be included in the final report that will be sent to the Governor and Legislature. Monica Stone provided a report regarding energy usage in Iowa. This report was prepared by OEI in December 2008.

Chairman Crine recessed the meeting for lunch at approximately 11:55 a.m.

Chairman Crine reconvened the meeting at approximately 12:25 p.m.

Chairman Crine introduced Jennifer Easler, an attorney with the Office of Consumer Advocate. She has been leading the Energy Efficiency Collaborative between the Investor Owned Utilities (Mid American Energy, Alliant Energy, and Black Hills) and various stakeholders. Jennifer explained the purpose and mission of the collaboration. The first year of the collaboration focused on residential construction sector, primarily energy audits. The primary goal of the collaborative is to try to make the energy efficiency programs rebate incentive programs available from all of the IOU's as uniform and user-friendly as possible. Another goal of the collaborative is to get out a common message to the public about the availability of these energy efficient programs, incentives, and audit information to allow consumers to make energy improvements to their home. The collaborative is working to train HVAC installers to ensure utility rebate-eligible equipment is installed properly, sized correctly, and all of its energy efficient features work properly. Jennifer also discussed the goal of the collaborative to eliminate the potential for the conflicts of interest between energy auditors also being the mechanical equipment installers. Jennifer discussed the new construction program for homes and the Energystar® program. The Commission discussed the conflict of interest issue that allows energy raters to rate their own work. Chairman Crine stated that he would like to see some state agency step up to regulate energy auditors/raters to provide creditability to the energy rating industry. The Members of the Commission discussed the pros and cons of the Energystar® program. The Commission agreed that the Commission's final report needs to address the shortcomings of the Energystar® program.

The next item on the agenda was the Final Report Outline. This was a facilitated discussion administered by Mike Coveyou. Mike discussed the timeline of the Commission's final report. The final report is due January 1, 2011. The last scheduled Commission meeting is June 2010. Mike created a flipchart explaining the Charge to the Commission.

- Charge to the Commission
 - Evaluate Building Energy Efficiency Standards
 - New & existing
 - State & Local
 - Residential, Commercial, Industrial
 - Reduction in Energy Use
 - Effect on Indoor Air Quality

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- Relationship to weatherization programs and availability of affordable housing
- Develop recommendations for new energy efficiency standards for new construction
- Recommendations for incentives for projects which exceed applicable codes
- Recommendations for building labeling or rating system
 - Residential: HERS/ HERS +
 - Commercial: % better than ASHRAE 90.1
 - Industrial:
- Obtain broad range of stakeholder input

The legislation specifically lists several stakeholders that are to be consulted. Those stakeholders are Iowa League of Cities, Iowa Landlord Association, Iowa Department of Transportation, Iowa Department of Public Health, and the Iowa Department of Human Rights- Community Action Division. Kevin Nordmeyer suggested that the Commission draft ideas for the final report and then invite the specific agencies those ideas affect to gather input.

Members of the Commission also discussed the labeling and rating systems as part of the charge of the Commission. Chairman Crine felt that it is the charge of the Commission to evaluate all of the building labeling/rating systems available and provide recommendations to be included in the final report. Nordmeyer provided statistics on registered LEED buildings and professionals in Iowa. Two years ago there were six LEED certified buildings. Last year there were 14 LEED certified buildings. As of August there were twenty-two LEED certified buildings. Those in process this year are 307 buildings. LEED accredited professionals went from 200 last year to 800 this year. Nordmeyer mentioned that these increases were all market driven and did not come about due to mandates.

Coveyou continued with the facilitated discussion. As a part of the discussion, Coveyou created the following flipchart sheet:

- What do we know about Building Energy Consumption in Iowa?
 - OEI Report – December 2008
 - Midwest Governor’s Association Report
 - League of Cities Survey
 - DNR Study – Britt/Makela Group Study
 - Iowa Utilities Association
 - 40% Building Energy Use
 - Navigant report to OEI
 - Architecture 2030

Chairman Crine distributed two handouts. One handout addressed previous questions regarding energy raters. Tim Hanes from CENERGY provided information regarding the compliance level for energy audits and the number of energy auditors in the state. The other handout provided some analysis done by the Building Code Bureau staff to the League of Cities survey that was completed.

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Coveyou captured the discussion by creating another flipchart sheet titled “Energy Policy in Iowa: The Context”. This flipchart provided the Commission with a comprehensive list of energy policy throughout state government.

- Energy Policy in Iowa: The Context
 - State Energy Plan
 - IUB – Energy Efficiency programs
 - State Energy Code
 - OEI Statute
 - Green Government Initiative / Energy Management in State Government – “Lead by Example”
 - Executive Orders 41, 3, 6
 - Public Construction – Life Cycle Cost Analysis
 - Energy Reviews
 - Sustainable Design
 - Climate Change Advisory Council
 - OCA Collaborative

Coveyou wrapped up the discussion by having the Commission discuss strategies to achieve reductions in energy use. Coveyou also discussed having the Commission create an action plan for the completion of the report at its December meeting.

There were no public comments or other business.

The meeting was adjourned at approximately 1:55 p.m. The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on December 2, 2009.

Respectfully Submitted,

Brian Bishop
Construction/ Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
December 2, 2009**

Commission Members Present:

James Strohman
Steve Carroll
Kim Willer
Amy Infelt
Lynnae Hentzen
Kevin Nordmeyer
Larry DeBuse
Mike Carroll
Erin Buchanan

Commission Members Absent:

Phil Delafield
Krista Capp
Monica Stone

Staff Present:

Stuart Crine, Commission Chairman and State Building Code Commissioner
Mike Coveyou, Planning & Research Administrator
Brian Bishop, Construction/Design Engineer

The meeting was called to order at approximately 9:05 a.m. by Chairman Crine.

Chairman Crine introduced Erin Buchanan as a new Commission member. Erin is the Energy Services Coordinator for Cedar Falls Utilities. Erin will be filling the seat that represents municipal utilities. The seat was vacated by Diane Johnson in October.

Chairman Crine asked if there were any comments or changes to the October 7th, 2009 meeting minutes. There were none. Mike Carroll made a **motion** to accept the minutes, **seconded** by Kimberly Willer. **Motion** passed unanimously.

Crine discussed how the statute that created the Commission on Energy Efficiency Standards and Practices stated that the Commission was to seek input from certain state agencies. One agency that was named was the Department of Transportation. Chairman Crine introduced Scott Gustafson, Facilities Engineer for the DOT, to the Commission members. Scott was observing the meeting today and will provide a presentation of the DOT's energy efficiency practices at the Commission's meeting in January.

The first item on the agenda was the Final Report Outline. This was a facilitated discussion administered by Mike Coveyou that was continued from the previous meeting. Mike discussed the timeline of the Commission's final report. The final report is due January 1, 2011. The last scheduled Commission meeting is June 2010. Mike posted the flipcharts that were created at the

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December 2, 2009
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last meeting. He also ran through the highlights of each chart. As a part of the discussion, Coveyou revisited the following flipchart sheet:

- What do we know about Building Energy Consumption in Iowa?
 - OEI Report – December 2008
 - Midwest Governor’s Association Report
 - League of Cities Survey
 - DNR Study – Britt/Makela Group Study
 - Iowa Utilities Association
 - 40% Building Energy Use
 - Navigant report to OEI
 - Architecture 2030
 - Climate Change Advisory Council
 - Quantity Energy Savings
 - ACEEE, MEEA, DOE, EERE, EIA, CRECS
- ACEEE – American Council for Energy Efficient Economy
 MEEA – Midwest Energy Efficiency Alliance
 DOE – U.S. Department of Energy
 EERE – Energy Efficiency and Renewable Energy –(US DOE)
 EIA – Energy Information Administration
 CRECS -

Discussion ensued by Amy Infelt, Lynnae Hentzen, Mike Carroll and Erin Buchanan regarding the topic of “Strategies to Achieve Reductions in Energy Use”. Amy Infelt mentioned providing more funding for enforcement of the energy code. Steve Carroll also mentioned that awareness of the State Energy Code should be another mission that the Commission should include in their final report. Coveyou provided the idea of providing incentives for local governments to enforce the energy code. Mike Carroll interjected that incentives wouldn’t necessarily have to be funding, but instead it could be manpower from the state, such as the state providing an energy code inspector to that local community. Amy added that energy code enforcement should be the focus rather than new code adoption to level the playing field for the construction industry. Steve Carroll mentioned the state electrical program being used as a model for energy code enforcement. Amy and Steve also added that education that provides awareness of the State Energy Code and its applicability is vital to the furtherance of the energy code.

Coveyou captured the discussion by creating a new flipchart sheet titled “Strategies to Achieve Reductions in Energy Use”. This flipchart provided the Commission with a list of strategies to reductions in energy use.

- Strategies to achieve reductions in energy use.
 - Energy Codes
 - Adoption
 - Enforcement
 - Education
 - Political Subdivision
 - Incentives
 - Community Incentives

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- Development of program

Coveyou created another flipchart regarding the strategy of energy codes to reduce energy use. The flip chart was titled "Strategy 1: Energy Codes"

Flipchart:

Strategy 1: Energy Codes

- Education/ Training
 - Public Officials
 - Construction Contractors
 - Architects & Engineers
 - Building Owners
 - Homeowners/ homebuyers
 - Realtors
 - Mechanical Professionals
 - Electricians
- Uneven Playing Field
 - Confusion
 - Lack of awareness
 - Accountability
- Content
 - Existence
 - Applicability of Code
 - Key Components
- Engage
 - IEC - Iowa Energy Center
 - MBI – Master Builders of Iowa
 - HBAI – Home Builders Association of Iowa
 - AIA – American Institute of Architects – Iowa Chapter
 - ASHRAE – American Society of Heating, Refrigeration, and Air Conditioning Engineers
 - COSC – Center on Sustainable Communities
 - USGBC – U.S. Green Building Council
 - IABO – Iowa Association of Building Officials
 - SMACNA – Sheet Metal Contractors of North America
 - Community Colleges

Coveyou created another flipchart regarding the strategy of enforcement of energy codes to reduce energy use. The flip chart was titled "Strategy 2: Energy Codes Enforcement"

Strategy 2: Energy Codes Enforcement

- Largely a responsibility of local jurisdictions
- Utility hookup requires verification of energy code compliance
- Local code enforcement vs. not
- Passive vs. Active enforcement
- Residential vs. Commercial
- Checklist

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- Education of Inspectors
- Statewide inspection of mechanical/ plumbing installations
- Clarify local responsibility for enforcement of State Energy Code

Coveyou created another flipchart regarding the strategy of enforcement of energy codes to reduce energy use. The flip chart was titled “Reducing Energy in Existing Buildings”

- Educating Building Owners
- Energy Efficiency Improvements
- Building Energy “Passport”

Mike Carroll mentioned that the educational component of the strategy would not necessarily need to be handled wholly by the state. M. Carroll cited many trade organizations and industry partners available that could help provide education of the energy code.

Chairman Crine mentioned that report should acknowledge that the enforcement of the State Energy Code will fall heavily upon local governments. Crine stated that the state would probably never have all of the resources to properly enforce the energy code statewide. Discussion by the Commission ensued. Larry DeBuse mentioned the recently created State Electrical Inspection program and how that program is up and running on a statewide basis. S. Carroll agreed that if a State Energy Code inspection program could be created similar to the State Electrical Inspection program it may work. Kevin Nordmeyer mentioned that some type of documentation for a contractor to show energy code compliance such as a checklist identifying critical energy code features could be used to allow local code inspectors to determine that a project meets the energy code. Chairman Crine also added that there is a plan to have statewide inspection of plumbing and mechanical installations. Crine added that maybe this discussion of energy code inspections should be added to the plumbing and mechanical plan. Chairman Crine acknowledged that the state’s model has not been set-up for combination inspectors, but it doesn’t mean that combination inspectors are not out of the question. Many members of the Commission liked the idea of trying to tack energy code inspections on to the development of future state inspection program such as electrical or plumbing and mechanical. Crine also mentioned the legislation that was passed last year that setup a study committee between the Department of Public Safety, Iowa Association of Building Officials, and Department of Public Health to study a plan to implement plumbing and mechanical inspections statewide. M. Carroll asked Chairman Crine if there was a legislative mandate for the electrical inspections. Crine responded that statewide electrical inspections were mandated by the legislature. M. Carroll proposed adding statewide energy inspections as a legislative proposal. Chairman Crine responded that it would be appropriate for the Commission to propose that energy code inspections be incorporated into a possible statewide plumbing and mechanical inspection program. Members of the Commission agreed that this idea should be pursued.

Kevin Nordmeyer brought up the element of performance of heating and cooling systems, and not just the enforcement of code minimums. Nordmeyer mentioned that there should be some mechanism in place to also inspect for performance issues. Amy Infelt responded that an energy code enforcement program may be able to work up to looking at the performance issue, but it

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December 2, 2009
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wouldn't be able to start there. Mike Carroll commented that maybe the performance issue should be left to utility incentives. Lynnae Hentzen brought up that COSC is already providing education to HVAC installers to discuss performance and proper installation techniques.

Amy Infelt pointed out the Commission has not discussed energy code enforcement for cities that already have building code enforcement in place. Amy mentioned that she has never discussed energy code issues with building officials in her area of the state. Coveyou cited that if code officials were not stressing the energy code in eastern Iowa, then code officials in other parts of the state are probably not stressing enforcement of the energy code. Chairman Crine stated that many building officials acknowledge that the energy code is not a priority or it outside the scope of their job description. Crine mentioned that he had received an unofficial opinion from the agency's attorney general that local code officials are obligated to enforce the State Energy Code. Coveyou interjected that city attorneys are the legal counsel for cities, and they are the ones who interpret state laws for their city. Coveyou suggested that the Commission should define the responsibility of cities to enforce the energy code so it is clear that cities are obligated to enforce the State Energy Code. Mike Carroll recommended that there be a minimum standard or checklist provided to local code officials to define the State Energy Code inspection requirements. Coveyou cited the State Electrical Inspection program as an example of having a minimum standard for local code inspectors.

Coveyou wrapped up the facilitated discussion and mentioned to the Commission that at its next meeting the facilitated discussion will discuss the topic of incentives.

Chairman Crine introduced Joe Kelly and Keith Denner of the Iowa Landlord's Association. The charge of the commission specifically mentioned seeking input from the Iowa Landlord's Association. Joe Kelly is the lobbyist for the Iowa Landlord's Association. Joe introduced one of the members he represents, Mr. Keith Denner. Keith Denner owns and operates the Sun Prairie Apartment Complex in West Des Moines along with other rental properties in Iowa. Sun Prairie Apartments is one of the largest apartment complexes in Iowa. Mr. Denner has implemented a variety of energy efficiency measures at the Sun Prairie Apartment complex. Some the implementations included low flow toilets, compact fluorescent lighting, and thermal curtains. Mr. Denner also mentioned he is very interested in energy efficiency and he believes that energy audits should be required as a part of disclosure during real estate transactions. He also believes that buildings should carry energy ratings. Mr. Denner mentioned that he has kept detailed paperwork on energy efficiency improvements for Sun Prairie and is able to show how these efficiencies have cut his operating expenses. Chairman Crine invited Mr. Denner back to future Commission meetings.

Chairman Crine recessed the meeting for lunch at approximately 11:45 a.m.

Chairman Crine reconvened the meeting at approximately 12:17 p.m.

Kimberly Willer gave a presentation to the Commission regarding all of the investor owned utilities rebate programs for 2010. MidAmerican Energy, Alliant Energy, and Black Hills Energy

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rebate program material was provided to all of the Commission members. Kimberly discussed the highlights of the 2010 MidAmerican Energy rebate program.

The next item on the agenda was committee reports. Mike Coveyou provided a brief summary of the legislative proposals that the Legislative Committee would like to forward to Senator Bolckom. The first legislative proposal was to require disclosure of utility bills during real estate transactions. Members of the Commission discussed this proposal. The Commission decided that this proposal was not perfect, but it should be forwarded to Senator Bolckom for consideration. Larry DeBuse made a **motion** to move forward with the legislative proposal regarding disclosure of utility bills during real estate transactions. This was **seconded** by Kevin Nordmeyer. **Motion** passed unanimously.

The Commission discussed the second legislative proposal regarding the deletion of the exemption of the energy code regarding renovation and remodeling of the 1 and 2 family dwellings. **Motion** made by Steve Carroll made a motion to accept the proposal regarding deleting the exemption for energy code compliance for 1 and 2 family dwellings. Erin Buchanan **seconded** the motion. Larry DeBuse opposed the motion. Remainder of Commission members approved the motion. **Motion carried.**

Chairman Crine mentioned that a resolution may be considered at the next Commission meeting for including energy inspections in the study committee regarding the electrical, mechanical, and plumbing inspections.

There was no report from the Education and Research Committee.

Mike Coveyou discussed the proposal concerning sustainable design rules for data centers and web portal businesses. Kevin Nordmeyer had some concerns regarding the language with the wording of the requirement of ASHRAE 90.1-2007. Nordmeyer stated that it appears that the rule is only requiring compliance with ASHRAE 90.1 to be considered sustainable. Coveyou responded that Nordmeyer raised some good issues and that this rule may need to be rewritten during the public comment period of the rule adoption process.

There were no public comments or other business.

Chairman Crine addressed all members of the Commission concerning the timeline. The Commission will cease on June 30, 2010. Crine stated that there are only four regularly scheduled meetings remaining until the cessation of the Commission. The Commission must provide a report to the Governor and Legislature by January 1, 2011. Crine stated that it would be optimal to have the report completed prior to the end of the Commission. Crine further stated that the Commission may need to start meeting more frequently, such as monthly rather than every other month. The Commission decided to meet next month in order to complete the final report. The Commission decided to pencil in the first Wednesday of every month until June 2010. The next meeting will be held on January 6th, 2010 at 10 a.m.

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Crine mentioned that if any member of the Commission knew of any interested party that would like to present to the Commission at its next meeting to forward their contact information to the Building Code Bureau Staff. Coveyou stated that the Homebuilders should be given the opportunity to speak before the Commission.

Chairman Crine also discussed the International Code Council (ICC) hearings that were held in Baltimore in late October and early November. The International Energy Conservation Code Committee passed provisions that would increase the energy efficiency of the 2012 International Energy Conservation Code (IECC) by 30 percent over the 2006 IECC. Another provision would make the International Residential Code energy efficiency code provisions match the IECC's provisions. All provisions will have to pass final action hearings before they are incorporated into the 2012 International Energy Conservation Code. Crine also mentioned the creation of the International Green Construction Code (IGCC). This code would be a sustainable construction code that would codify sustainable design provisions. There is a real push to get this code out on the market before other codes are available. Chairman Crine is on an adoption advisory committee from ICC that will advise and promote local governments to adopt the IGCC.

The meeting was adjourned at approximately 1:20 p.m. The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on January 6th, 2009.

Respectfully Submitted,

Brian Bishop
Construction/ Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
January 6, 2010**

Commission Members Present:

Steve Carroll
Kim Willer (via phone)
Amy Infelt
Lynnae Hentzen
Kevin Nordmeyer
Larry DeBuse
Erin Buchanan
Phil Delafield
Krista Capp
Monica Stone

Commission Members Absent:

James Strohman
Mike Carroll

Staff Present:

Stuart Crine, Commission Chairman and State Building Code Commissioner
Mike Coveyou, Planning & Research Administrator
Brian Bishop, Construction/Design Engineer

The meeting was called to order at approximately 10:15 a.m. by Chairman Crine.

Chairman Crine asked if there were any comments or changes to the December 2, 2009 meeting minutes. There were none, Phil Delafield made a **motion** to accept the minutes, **seconded** by Steve Carroll. **Motion** passed unanimously.

The first item on the agenda was committee reports. Lynnae Hentzen discussed the recent HVAC installer training classes that her organization provided around the state as part of an Iowa Department of Economic Development grant. Lynnae mentioned that those heating, ventilation, and air conditioning (HVAC) installers that attended the training all commented on how much they learned. Lynnae's organization, Center for Sustainable Communities (COSC), still has some grant money available and would like to initiate an energy rater training seminar and a HVAC installer training/certification seminar. The HVAC installer training and certification would be administered by the National Comfort Institute (NCI). Lynnae was seeking input from the Commission to see if this training was worth pursuing. Kevin Nordmeyer mentioned that the community colleges and the Iowa Energy Center have been discussing the different training options available and are trying to recommend which training program is the best. Lynnae mentioned that she is working with the investor owned utilities to possibly tie the certification to utility rebates and incentives. Steve Carroll interjected that certifications don't necessarily translate into more energy efficient practices, unless there are proper enforcement means or continuing education requirements to ensure the certification properly represents the skills of the

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certificate holder. Erin Buchanan stated that her employer, Cedar Falls Utilities, has utilized the National Comfort Institute training for the energy rater that they employ and NCI has provided solid training in the past. Chairman Crine stated that he was happy to see that Lynnae's organization was taking the initiative to start training and certifying HVAC installers. The general consensus of the Commission was that it was not the charge of the Commission to dictate the practices of Lynnae's organization, COSC, but the training and certification program for HVAC installers is a really good start to promote energy efficiency and best practices for HVAC installations.

Crine mentioned that Commission's final report outline, which would be discussed later in the meeting, was based upon a suggested format provided by Commission member James Strohman. Crine also discussed the results of the Administrative Rules Review Committee that was held on December 7, 2009. The administrative rules that adopted the 2009 International Codes, including the 2009 International Energy Conservation Code, passed with the exception of the residential sprinkler provision. The residential sprinkler provision which was included in the 2009 International Residential Code will be delayed until at least the end of the upcoming legislative session.

There was no report from the legislative subcommittee.

The next item on the agenda was the Final Report Outline. This was a facilitated discussion administered by Mike Coveyou that was continued from the previous meeting. Mike provided handouts to the Commission. The first handout contained all of the information from the flipcharts that were created at the previous meetings. The second handout was a draft outline of the final report. Mike reviewed the draft of the final report with the Commission. Kevin Nordmeyer asked if a map or a list of Iowa's neighboring states and their adopted energy codes could be provided to the Commission. Chairman Crine responded that a map or list of neighboring states and their adopted energy codes would be provided at the next Commission meeting. Members of the Commission continued to review the final report outline. Coveyou captured all of the comments and recommendations for the final report outline and will provide an updated final report outline to the Commission at the next meeting.

Chairman Crine recessed the meeting for lunch at approximately 12:10 p.m.

Chairman Crine reconvened the meeting at approximately 12:45 p.m.

Mike Coveyou asked members of the Commission to look over the final report outline and then they can provide their notes and recommendations at the next meeting or they could email their comments to Mike or Brian Bishop. Members of the Commission wrapped up their discussion on the final report outline and will continue this discussion at next month's meeting.

Kimberly Willer commented that she could arrange to have Greg Dalhoff, contractor for MidAmerican Energy's weatherization program, provide a presentation at the next Commission meeting. Chairman Crine and other members of the Commission were interested in having this presentation. Kimberly will contact Greg Dalhoff to set up this meeting. Chairman Crine

Commission on Energy Efficiency Standards and Practices
January 6, 2010
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mentioned that the final report should include all those individuals and organizations that provided presentations before the Commission.

There were no public comments or other business.

The meeting was adjourned at approximately 2:00 p.m. The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on February 3rd, 2010.

Respectfully Submitted,

Brian Bishop
Construction/ Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
February 10, 2010**

Commission Members Present:

Steve Carroll (via phone)
Kimberly Willer
Amy Infelt
Lynnae Hentzen
Kevin Nordmeyer
Larry DeBuse
Erin Buchanan
Phil Delafield
Mike Carroll

Commission Members Absent:

James Strohman
Krista Capp
Monica Stone

Staff Present:

Stuart Crine, Commission Chairman and State Building Code Commissioner
Brian Bishop, Construction/Design Engineer

The meeting was called to order at approximately 10:00 a.m. by Chairman Crine.

Guests in attendance at the meeting included:

Jennifer Moehlman – Department of Administrative Services
Mindy Uhle – Iowa Department of Public Health
Stuart Schmitz – Iowa Department of Public Health
Greg Dalhoff – Dalhoff Associates
Scott Gustafson – Iowa Department of Transportation
Shannon Wright – Iowa League of Cities

Chairman Crine asked if there were any comments or changes to the January 6th, 2010 meeting minutes. There were none, Kevin Nordmeyer made a **motion** to accept the minutes, **seconded** by Kimberly Willer. **Motion** passed unanimously.

The first item on the agenda was committee reports. Chairman Crine provided an update on the legislation proposed by the Commission; Senate File 2080 introduced by Senator Bolkcom. The legislation would delete the energy code exemption for the remodeling or renovation of one and two family dwellings. There was no report from the Education and Research Committee or the Legislative Committee.

Greg Dalhoff, with Dalhoff Associates, LLC, provided a presentation on the Iowa Statewide Low Income Collaborative Evaluation (SLICE) program. SLICE is a weatherization evaluation

**Commission on Energy Efficiency Standards and Practices
February 10, 2010
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program that is overseen by the investor owned utilities, Iowa community action agencies, Office of Consumer Advocate, and others. This evaluation began in mid-1992 and is the longest running weatherization assistance program in the United States. The SLICE program evaluates program impacts through an assessment of savings, reported at the state, utility and agency levels using a standardized report which allows for clear comparison across the years.

Mindy Uhle and Stuart Schmitz from the Iowa Department of Public Health then provided a presentation on healthy homes and indoor air quality issues and its relationship to energy efficiency measures. Mindy Uhle administers the Healthy Homes Initiative program for the Iowa Dept. of Public Health. She provided information on the Healthy Homes Initiative Program. This program provides training to local and county public health departments concerning home health issues such as carbon monoxide, radon, lead, mold, and pest control. Stuart Schmitz, State Toxicologist for the Environmental Health Division, provided information on indoor air quality issues such as mold, radon, volatile organic compounds (VOC), and fresh air/ventilation requirements.

Chairman Crine recessed the meeting for lunch at approximately 11:30 p.m.

Chairman Crine reconvened the meeting at approximately 12:00 p.m.

Chairman Crine distributed a map of the United States that depicted each state's adopted residential and commercial energy code. Members of the Commission discussed how Iowa's energy code adoption compared to the surrounding Midwestern states. Crine also discussed his recent trip to the National Association of State Energy Officials (NASEO) Conference in Washington, D.C. His attendance at the conference was for the energy code portion. The main subject that was discussed was the Department of Energy acceptance requirements for the ninety percent energy code compliance criteria as part of the American Recovery and Reinvestment Act (ARRA). The conference was cut short due to the impending snowstorm in D.C. so many of the topics at the conference were not covered as extensively as originally planned.

There were no public comments or other business.

Kimberely Willer commented that Mid American Energy has a program called Energy Wise. Energy Wise educates low income families on energy efficiency practices.

The Commission discussed the State Energy Code. Phil Delafield provided insight on the local code official's role with energy codes. He stated that many communities do not have the resources to perform the required energy code inspections. Delafield also stated that the State Energy Code deletes the administrative portion regarding plan reviews, inspections and stop work orders. He felt that with this deletion, the code strips local code officials of the ability to perform these enforcement actions. Chairman Crine interjected that the State Energy Code was adopted with these deletions due to the State Building Code administrative rules already containing language regarding inspections and plan review. Crine suggested that cities would either need to adopt the deleted provisions out of the International Energy Conservation Code or provide language in their ordinance regarding energy inspections, plan review, etc. Chairman

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February 10, 2010
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Crine mentioned the idea of allowing a third party inspection program for energy codes. Crine mentioned that the Commission may want to include this concept of using third-party energy code inspectors in the final report. Delafield was very receptive to this idea and provided some details of what the program would need to include. The program should allow a city to perform the energy code inspections if desired, conflicts of interest should be addressed, and minimum levels of certifications for inspectors would need to be included.

Chairman Crine addressed the final report. Since Mike Coveyou was unable to attend the meeting, it was decided by the Commission to not work on the report this month. Copies of the report outline were distributed to the members. The members of the Commission agreed to look over the outline and provide input for the report at the next meeting. Crine also mentioned that if members of the Commission have suggestions for any topics that haven't been covered to please let him know.

Amy Infelt discussed the Life Cycle Cost Analysis (LCCA) required by Iowa Code on certain public buildings. Amy attended a recent meeting held by the Office of Energy Independence that discussed the use of the life cycle cost analysis. Amy mentioned that the life cycle cost analysis recommends equipment based on the lowest total ownership cost for a building, not the lowest use of energy. Amy felt that the issue of whether the LCCA should be based on saving energy or saving money should be included in the Commission's final report.

Shannon Wright with the Iowa League of Cities stated that energy codes will be a topic in the May issue of the Cityscapes magazine that is provided to members of the Iowa League of Cities. Phil Delafield will be providing input for the article from a local code official's perspective. Shannon also asked if Chairman Crine would also provide input to the article as well. Crine agreed he would be happy to provide any input for the article.

The meeting was adjourned at approximately 12:47p.m. The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on March 3rd, 2010.

Respectfully Submitted,

Brian Bishop
Construction/ Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
March 3, 2010**

Commission Members Present:

Steve Carroll
Kimberly Willer
Amy Infelt
Lynnae Hentzen
Larry DeBuse
Erin Buchanan
Monica Stone
James Strohman
Phil Delafield

Commission Members Absent:

Krista Capp
Mike Carroll
Kevin Nordmeyer

Staff Present:

Stuart Crine, Commission Chairman and State Building Code Commissioner
Brian Bishop, Construction/Design Engineer
Mike Coveyou, Planning & Research Administrator

The meeting was called to order at approximately 10:00 a.m. by Chairman Crine.

Guests in attendance at the meeting included:

Scott Gustafson – Iowa Department of Transportation
Shannon Wright – Iowa League of Cities

Chairman Crine asked if there were any comments or changes to the February 10th, 2010 meeting minutes. Phil Delafield had one correction to page two of the minutes. Instead of stating “his department did not have the resources” it should be changed to “many communities may not have the resources”. Amy Infelt also had a correction on page three of the minutes. Instead of stating “the life cycle cost analysis recommends equipment based on the lowest operating cost for a building” it should be changed to “the life cycle cost analysis recommends equipment based on the lowest total ownership cost of a building”. Larry DeBuse made a **motion** to accept the minutes as corrected, **seconded** by Kimberly Willer. **Motion** passed unanimously.

The first item on the agenda was committee reports. Chairman Crine asked Mike Coveyou to provide an update regarding the status of legislation that had been introduced during the current general assembly. Coveyou provided an update regarding the status of the legislation that Senator Bolkcom introduced regarding the applicability of the energy code to the renovation of one and two family dwellings. This legislation did not make it out of committee. The other legislation proposal provided to Senator Bolkcom that required sellers of real estate to provide

Commission on Energy Efficiency Standards and Practices

March 3, 2010

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utility bills to show energy usage was not selected for introduction. There was no report from the Education and Research Committee. Lynnae Hentzen did comment on the possibility of having the Center on Sustainable Communities (COSC) host an Energy Code Forum in conjunction with the Mid Iowa Construction Code Council (MICC). This forum would allow local building code officials to discuss their training needs regarding the energy code.

The next item on the agenda was a presentation from Scott Gustafson, Facilities Engineer with the Iowa Department of Transportation (IDOT). Scott provided a presentation on the energy efficiency practices that IDOT is currently implementing in their facilities across Iowa. IDOT maintains numerous maintenance garage complexes, driver's license stations, rest areas, and office buildings across the state. Scott and the rest of the facilities staff at IDOT use Leadership in Energy and Environmental Design (LEED) Silver standards published by the United States Green Building Council (USGBC) for new construction. The LEED silver design standards are used, but certification has not been sought due to the documentation requirements. The IDOT facilities team is also considering using LEED standards for remodeling projects. Scott also showcased some of the recent projects completed by IDOT that utilized sustainable building practices.

Chairman Crine distributed copies of the letter that Iowa League of Cities authored regarding energy efficiency and the role of Iowa cities. Members of the Commission reviewed the letter.

There were no public comments or other business.

Mike Coveyou discussed the two new green construction standards that will be released soon. ASHRAE has developed Standard 189.1 for sustainable buildings and the International Code Council has developed the International Green Construction Code.

Chairman Crine moved to the next item on the agenda which was the final report outline. Mike Coveyou led the discussion and distributed a handout titled "Issues/ Proposals for Consideration by Commission on Energy Efficiency Standards and Practices". The Commission went through each item on the handout. The first item discussed by the Commission was whether or not Iowa should continue to adopt succeeding editions of the International Energy Conservation Code. The Commission discussed how all of the state construction codes are adopted. It was the consensus of the Commission to recommend that the State continue to adopt succeeding editions of the International Energy Conservation Code as well as the International Mechanical Code, since these two documents are inextricably linked together. Chairman Crine clarified to the Commission the applicability of both the State Energy Code and the Mechanical Code that is adopted by the State Building Code Bureau. The State Energy Code applies to all construction statewide. The mechanical code only applies to construction that is subject to the State Building Code, such as state-owned buildings, projects financed with state monies, and areas that have specifically adopted the State Building Code.

Coveyou asked Chairman Crine whether or not the Commission should be voting on the report proposal today since not all of the members of the Commission were present. Chairman Crine asked the Commission members who were present how they wanted to handle this issue. James

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March 3, 2010

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Strohman stated that if the Commission members had a general consensus on an issue it should be treated as an approval.

Steve Carroll inquired about whether or not the report should include some type of energy cost savings documentation due to newly adopted codes. Chairman Crine agreed that the energy cost savings documentation due to current energy codes and future energy codes should be included in the report. Crine stated that Building Code Bureau staff would research this savings documentation. Crine added that the 2012 International Energy Conservation Code will provide up to thirty percent savings in energy usage when compared to the 2006 International Energy Conservation Code (IECC). Amy Infelt also agreed with the proposal of adopting subsequent energy codes since Iowa is adopting a widely used national standard and has been a leader in energy code adoption in the Midwest.

Coveyou moved to item number two on the proposal list. This proposal discussed whether the Commission should endorse the development of technical capacity in the State Building Code Bureau to provide leadership and technical assistance in the enforcement of the State Energy Code. Discussion ensued among the members of the Commission. Phil Delafield commented that there is a strong need for this if the State is going to mandate a state-wide code. He believes that the State should provide the resources to support that code in terms of technical capacity, training, etc.

Chairman Crine discussed that many of the energy code inspection/ enforcement plans of the Commission have not taken into account the investor-owned utility rebate programs. Steve Carroll felt that a state-wide energy code enforcement program would augment the investor-owned utility above energy code rebate programs. Chairman Crine mentioned that a strategy utilizing third-party energy code inspectors would seem the most logical since the State would likely not have the capacity to hire the required number of energy code inspectors to effectively run a state-wide program. Chairman Crine asked Brian Bishop to explain the inspection process that is utilized by the State of Texas. Bishop explained that Texas uses state inspectors and third party inspectors, called registered specialists for energy and accessibility code enforcement. These registered specialists perform plan review and inspection functions on behalf of the State of Texas. A state filing fee is required for any project in the state. The plan review and inspection fees are paid directly to the registered specialist directly from the contractor or building owner. The registered specialist performs all of the functions and provides a report to the state. The primary drawback to this third party inspection program is the money for the plan review and inspections is transferred between the registered specialist and the contractor, which can lead to conflict of interest problems. Coveyou felt that the Texas model may be viable to be used in Iowa if a few modifications were made to eliminate conflicts of interests. Larry DeBuse interjected that the Homebuilders Association is going to make the case that they have increased energy efficiency over the last fifteen years on a voluntary basis and there is no need for an energy code enforcement program.

Chairman Crine recessed the meeting for lunch at approximately 11:45 p.m.

Chairman Crine reconvened the meeting at approximately 12:30 p.m.

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Amy Infelt stated that items two through six are all tied together through the issue of enforcement and that adopting more stringent codes should not be the focus. The focus should be on enforcing the currently adopted energy code. Coveyou asked the Commission if items three through six should be grouped together. Crine suggested that at the next meeting a report outlining all of the credentialing options would be provided to the Commission. Phil Delafield asked the question of what are the repercussions of not following the energy code. Delafield suggested that the Commission recommend consumer protection legislation in regards to energy code compliance. Steve Carroll mentioned that there is already a statute in the Iowa Code that does not allow a utility company to provide permanent electric service unless that home meets the current State Energy Code. Members of the Commission also discussed providing incentives or public recognition to contractors and other companies for meeting the requirements of the energy code. The Commission discussed the possibility of adding a credentialing process for builders, contractors, and designers.

The Commission discussed the second page of the proposal ideas. The first item discussed was the use of heat recovery ventilation units in residential construction. The Commission also discussed the issue of unusually tight construction and indoor air quality. More details were needed on these issues before a decision could be determined.

The next item discussed was whether or not there should be any more restrictive provisions added to the IECC. The consensus of the Commission was to try to keep the state energy code as close to the national standard as possible.

Incentives were the next item discussed by the Commission. The Commission agreed that the current utility rebates are adequate incentives to promote energy efficiency. The Commission discussed the idea of using incentives to modify existing buildings to improve energy efficiency. Amy Infelt mentioned the use of utility rebates to encourage energy efficiency upgrades in existing buildings. Delafield brought up the subject of urban renewal districts and using tax credits to be used as an incentive for energy efficiency upgrades in existing buildings. Coveyou suggested that Jennifer Easler, attorney with the Office of Consumer Advocate, should come to the next Commission meeting to address the realm of utility rebate programs available. Erin Buchanan asked whether there were incentives or policies outside of utility rebate programs that could encourage efficiency for consumers that utilize propane. Steve Carroll responded that the way the propane industry is structured it would be very difficult to create a rebate program within this industry.

The next proposal discussed by the Commission was the idea of developing recommendations for adoption of a statewide energy efficiency building labeling or rating system. Chairman Crine asked the question of whether or not it should be the Commission's role to pick one building rating systems. Members of the Commission agreed that it should not recommend or endorse only one building rating or labeling system, since all of the building rating systems currently available promote energy efficiency and sustainability.

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Coveyou recommended that the Legislative and Administrative/ Budgetary items on the proposals list be tabled until next month's Commission meeting. Chairman Crine agreed.

The Commission decided to end the meeting discussing net zero energy construction and sustainable design. Coveyou stated that Roya Stanley, director of the Office of Independence, has been very outspoken about pursuing the goal of net zero energy construction for state buildings. Amy Infelt felt that it was too soon to recommend net zero energy construction standards since the methods of net zero energy construction are still under development and have not yet been clearly defined. Chairman Crine posed the question of providing goals in the report to have the State of Iowa build at least one net zero energy project to be used for demonstration purposes. Infelt stated that the goals for a high performance building that are extremely energy efficient is completely different than the goals of a net zero energy building. Net zero energy buildings require another utility component such as the on-site production of renewable energy that is really beyond the scope of energy efficiency and this Commission. Lynnae Hentzen commented that although net zero energy construction is important, energy efficiency in existing structures should be more of the focus of this Commission.

Steve Carroll inquired about adding a recommendation to have all construction regulation consolidated into one agency so that energy efficiency could be tied to the building and mechanical codes.

The meeting was adjourned at approximately 2:00 p.m. The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on April 7th, 2010.

Respectfully Submitted,

Brian Bishop
Construction/ Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
April 7, 2010**

Commission Members Present:

Steve Carroll
Kimberly Willer
Amy Infelt
Lynnae Hentzen
Larry DeBuse
Erin Buchanan
Kevin Nordmeyer
James Strohman (via phone)
Krista Capp
Phil Delafield

Commission Members Absent:

Mike Carroll
Monica Stone

Staff Present:

Stuart Crine, Commission, Chairman and State Building Code Commissioner
Brian Bishop, Construction/Design Engineer
Mike Coveyou, Planning & Research Administrator

The meeting was called to order at approximately 10:40 a.m. by Chairman Crine.

Guests in attendance at the meeting included:

Jennifer Moehlman – Iowa Department of Administrative Services
Shannon Wright – Iowa League of Cities
Bill McAnally – Iowa Central Community College
Megan Osweiler – Iowa League of Cities

Chairman Crine asked if there were any comments or changes to the March 3rd, 2010 meeting minutes. Erin Buchanan had one correction to page four of the minutes. Kimberly Willer had one correction. Amy Infelt also had corrections that she provided in writing. Lynnae Hentzen made a **motion** to accept the minutes as corrected, **seconded** by Phil Delafield. **Motion** passed unanimously.

Chairman Crine introduced newly appointed State Fire Marshal Ray Reynolds to the Commission. The members introduced themselves to Fire Marshal Reynolds and he made a short statement in support of the mission of the Commission.

Chairman Crine introduced Bill Brand with the Division of Community Action Agencies in the Department of Human Rights. Bill provided the Commission with an overview of the weatherization assistance program. The weatherization program has been in existence for over

Commission on Energy Efficiency Standards and Practices
April 7th, 2010
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thirty years. It has been primarily federally funded and targets residential energy efficiency for low income participants. Bill explained that Iowa typically has received approximately 15 million dollars annually for the weatherization program from the federal government. The 2009 American Recovery and Reinvestment Act allocated 80 million dollars to Iowa. It is estimated that 7,200 homes in Iowa will be weatherized as a result of ARRA funds. A household is eligible based on criteria such as income level or whether an applicant is receiving financial assistance from a government program. The community action agencies serve all of Iowa's 99 counties. The community action agencies can contract out the weatherization services or perform the work with their employees. The weatherization program focuses on energy efficiency and health and safety. Homes are ranked on energy usage and those using the most energy are placed on a priority list. Bill explained that health and safety inspection focused on checking for carbon monoxide, checking the condition of the furnace heat exchanger, checking for asbestos and potential moisture problems, and ensuring there are no gas leaks. Energy efficiency measures include adding insulation, reducing air infiltration, repairing the heating system, replacing inefficient freezers and refrigerators, installing low flow shower heads and installing compact fluorescent light bulbs. Bill commented that the hiring and training of the workers needed for the additional weatherization projects due to ARRA has been challenging. Several members of the Commission asked Mr. Brand questions regarding the weatherization program. Amy Infelt commented that the Commission should include in their final report a means to show support for the weatherization program. Chairman Crine asked Bill if a plan had been discussed concerning the ramp down of all the additional workers that had to be hired due to ARRA. Bill responded that currently the program is moving at such a fast pace that it hasn't really been considered, however there has been discussions with other state agencies on what happens with these additional workers once the funding stream is depleted. Mike Coveyou asked Bill Brand if they have considered turning the extra weatherization evaluators into energy auditors since there may be need for them in the future. Mr. Brand responded that his office should be able to figure out where the weatherization program is headed once they completely have their arms wrapped around the ARRA weatherization project. Larry DeBuse asked Bill if the weatherization program included window replacement. Mr. Brand responded that windows are only replaced if they are absolutely necessary since they are not cost effective. Kevin Nordmeyer asked how big is the magnitude of people that need to be served. Bill responded that the numbers hadn't been run for a while, but based on the last study it was approximately 180,000 eligible homes. This number was based on the old eligibility guidelines, so the current number has increased. Coveyou asked Mr. Brand about his take on households utilizing propane to heat their house and whether or not they should be included in a weatherization program funded by the Propane Education and Research Council. Mr. Brand responded that the propane industry has discussed the use of some funds to be used for energy efficiency and weatherization. The main objective of the Propane Education and Research Council is propane awareness and safety. Steve Carroll asked if there is any rating attached to the properties that are being weatherized. Mr. Brand responded that there is no documentation left with the homeowner to show how much work has been done by the community action agency during a weatherization project. The community action agency would keep records, but there is nothing left at the project site. Chairman Crine asked if carbon monoxide detectors are included during the safety portion of the weatherization project. Bill responded that carbon monoxide detectors are installed.

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April 7th, 2010
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Chairman Crine introduced Khosrow Khojatesh from the Office of Consumer Advocate. Khosrow provided a brief overview of the investor-owned utilities' energy efficiency plans. The investor owned utilities spend a combined \$160 million a year on energy efficiency incentives. Interstate Power and Light (Alliant Energy) currently offers incentives for energy efficiency in agricultural applications. Mid American is currently working on providing energy efficiency programs for agricultural customers. Khosrow also mentioned that propane gas users are being considered for investor owned utilities energy efficiency programs since most propane users are electrical customers, and only use propane for heating purposes. Coveyou asked for a breakdown of the \$160 million that is used for new construction. Khosrow stated that he will provide that information to the Commission members.

There were no public comments or other business.

Chairman Crine recessed the meeting for lunch at approximately 12:30 p.m.

Chairman Crine reconvened the meeting at approximately 1:00 p.m.

Amy Infelt mentioned she had a few more corrections to the minutes. Those corrections dealt with her explanation of net zero energy projects. Those corrections were provided to Brian Bishop for amendment to last month's minutes.

Chairman Crine discussed the Energy Code pilot program sponsored by the Department of Energy. The U.S. Department of Energy along with the regional energy efficiency partnerships are looking for five states to be included in a pilot study of obtaining ninety percent compliance with the energy code. The DOE will provide funding of \$150,000, plus technical resources for training and enforcement. Chairman Crine asked the Commission members whether or not this was worth pursuing. Steve Carroll made a motion to the application and further pursue the Department of Energy's request to be included as one of the energy code pilot studies, second by Krista Capp. Motion passed unanimously. Chairman Crine mentioned that International Code Council has recently released the International Green Construction Code (IGCC). A copy of the IGCC was being passed around for members of the Commission to view. Chairman Crine also discussed the Building Code Bureau's grant application with the Office of Energy Independence. Chairman Crine discussed the history of the grant application with OEI. Currently the Building Code Bureau is in discussions with the Office of Energy Independence to fund two energy code enforcement positions, one engineer and one building inspector. A training component with the grant is included and would be used to educate code officials, builders, and designers about the use and application of the energy code. Chairman Crine also discussed the timeline regarding the final report. Crine asked if the Commission members would prefer one long meeting next month or two separate meetings. Members of the Commission decided to have a work session meeting for the May meeting. The meeting will begin at 9:00 a.m. on May 5th.

Mike Coveyou distributed copies of a very rough draft of the final report. The rough draft contained the structure of the report and a breakdown of topics that would be discussed. Coveyou mentioned that the history of energy conservation in Iowa should be included in the report. Amy

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April 7th, 2010
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Infelt discussed what an impact the utility rebate programs have had across Iowa to improve energy efficiency. Coveyou further explained the sections of the report. Kevin Nordmeyer mentioned that the executive summary of the report should state that this Commission was formed prior to the American Recovery and Reinvestment Act and other federal energy program grants. Steve Carroll agreed that the report should state that Iowa has been concerned with energy conservation for some time and Iowa should try to sustain the ability to remain a leader in energy conservation. Amy mentioned that the first meeting of the Commission there was a brainstorming session concerning all of the studies and work that has been done concerning energy efficiency. She would like this history to be considered in the final report. Nordmeyer mentioned that the Office of Energy Independence and Workforce Development Department could provide input on all of the allocations that Iowa has received as part of the Recovery Act. Amy mentioned that there also should be a place in the report that Iowa has been a leader in adopting the most current energy code, but the area of code enforcement needs to be enhanced. Chairman Crine and Coveyou mentioned that there needs to be an explanation of code adoption and code enforcement, active and passive enforcement, and enforcement and compliance. Phil Delafield mentioned that the Britt/Makela report from 2003 indicated that most homes surveyed in Iowa met the energy code requirements, although they had not undergone proper documentation or inspection. Coveyou posed the question of having unregulated areas being able to request an energy code inspection from the state. Chairman Crine felt that a program like that would not be effective due to the inability to plan for resource needs. Nordmeyer mentioned verification by a third party is really the only way of ensuring that a project meets the energy code. Chairman Crine discussed the issue of regulated areas versus non-regulated areas and how this should be included in the report. The following ideas concerning the final report were discussed among the Commission members.

- Kevin Nordmeyer mentioned OEI's request for supplementary energy centers. Nordmeyer posed the question of whether or not energy code would be included with these regional offices. Chairman Crine responded that the Office of Energy Independence has stated they do not want to be involved with enforcement of the energy code and it should remain with the State Building Code Bureau.
- Phil asked what consequences are available if construction does not meet the energy code.
- Phil also discussed that means for existing buildings to be retrofitted for energy efficiency should be discussed in the final report.
- Coveyou told the Commission that they need to be explicit on their stance of the stringency of the current energy adopted energy code. Amy responded that it was decided at the last meeting that the International Energy Conservation Code is becoming more energy efficient at a reasonable rate without the need for more restrictive state amendments.
- Coveyou assigned the task to the Commission members of looking over the report outline to determine if the breakdown of categories is appropriate and examine if the report topics are correct.

The meeting was adjourned at approximately 2:10 p.m. The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on May 5th, 2010.

Commission on Energy Efficiency Standards and Practices
April 7th, 2010
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Respectfully Submitted,

Brian Bishop
Construction/ Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
May 5, 2010**

Commission Members Present:

Steve Carroll
Kimberly Willer
Amy Infelt
Lynnae Hentzen
Erin Buchanan
Kevin Nordmeyer
James Strohman
Phil Delafield
Monica Stone

Commission Members Absent:

Krista Capp
Mike Carroll
Larry DeBuse

Staff Present:

Stuart Crine, Commission Chairman and State Building Code Commissioner
Brian Bishop, Construction/Design Engineer
Mike Coveyou, Planning & Research Administrator

The meeting was called to order at approximately 9:15 a.m. by Chairman Crine.

Guests in attendance at the meeting included:

Jennifer Moehlman – Iowa Department of Administrative Services
Shannon Wright – Iowa League of Cities
Megan Osweiler – Iowa League of Cities

Chairman Crine asked the Commission members if they would like to approve the minutes from the previous meeting. The members of the Commission asked for additional time to review the minutes. Crine stated the minutes could be approved after lunch.

Chairman Crine provided an update concerning recent happenings with regards to the State Energy Code. The updates included the following:

- Negotiations between the Office of Energy Independence and Department of Public Safety continue for funding to provide an engineer and building inspector to ramp up enforcement of the State Energy Code. Training will not be included in the grant due to a lack of funding.
- Iowa has been selected by the Department of Energy as one of six states to be included as a pilot program for energy code enforcement.
- Chairman Crine also recently attended the National Association of State Energy Officials meeting in Washington D.C. This meeting consisted of the Department of Energy

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May 5th, 2010

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listening to the attendees provide feedback to the various energy code programs that are offered by DOE. One idea that was discussed was to open source the energy code and have DOE pay ICC to provide the energy code for free. DOE took notes of all of the items discussed.

- The Iowa Association of Building Officials received a grant from the Iowa Department of Economic Development for \$20,000 to provide energy code training across the state. The City of West Des Moines also received a grant to provide energy code training from the Office of Energy Independence community block grant funding. IABO will coordinate with the city of West Des Moines to not duplicate training efforts in central Iowa.
- The Department of Public Safety building recently received LEED certification. The DPS building was the first building on the Capitol Complex to receive LEED certification.

There were no committee reports. Lynnae discussed the Energy Code Forum that was held on May 3rd. The Energy Code Forum allowed building officials, energy raters, and others related to the energy field to discuss energy code issues, energy code training needs, and barriers to energy code enforcement. One idea that came out of the forum was that any training should be separated by residential and commercial, but not by code officials, architects, and contractors.

The next item on the agenda was the final report work session facilitated by Mike Coveyou. Coveyou provided an outline of the report to the Commission members. Coveyou discussed the timeline of the final report with a draft of the final report being available for the June meeting. The membership of the Commission will be listed before the executive summary. The executive summary will briefly discuss the origin and charge of the Commission, makeup of the Commission, number of meetings, presenters at the meetings, and recommendations of the Commission. The recommendations will be categorized for those that require legislation, those for local government, etc.

The report outline was organized by the following:

Executive Summary

- a) Charge to Commission
- b) Commission Membership
- c) Commission Meetings and Sources of Information
 - i) Numbers of Meetings
 - ii) Speakers at Meetings
- d) Recommendations

2) Introduction

- a) Creation of Commission and Commission Charge
 - i) Commission formed in 2008 and many changes have occurred in the meantime – Economic crisis, ARRA, I-Jobs
 - ii) Discuss OEI Grant and DOE(PNNL) Grant for Pilot Study – S. Carroll
 - iii) ARRA, SEP Grants, and Green Jobs should be discussed – K. Nordmeyer & M. Coveyou
- b) Focus on energy efficiency, particularly building energy
 - i) Impact of energy conservation – energy savings and emissions reduction

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- c) Role of Code and Code Compliance in Promoting Energy Conservation
- d) Alternatives to Code Enforcement to Promote Building Energy Conservation
- 3) Background
 - a) Building energy consumption in U.S. and Iowa
 - i) Data Addendum to OEI Report
 - b) Potential for Energy Savings
 - c) History of Approaches to Building Energy Conservation
 - i) Energy Codes
 - (1) Iowa's history of emphasis on energy conservation/ efficiency dating to the 1980's and late 1970's
 - (2) Review of prior reports and studies of building energy conservation and energy codes in Iowa
 - ii) Incentive Programs
 - iii) Building Retrofitting
 - iv) Building Operations
 - v) Sustainable Design
- 4) Building Energy Conservation through Energy Codes
 - a) Future adoption of Energy Codes
 - b) Variations from IECC
 - c) Connections between IECC and other Codes
 - d) Enforcement by State Building Code Bureau and Political Subdivisions
 - i) Survey results from the Iowa League of Cities – S. Crine
 - e) Alternative Model: Third Party Enforcement
 - f) Role of Life Cycle Cost Analysis and Energy Reviews
 - g) Consequences of non-compliance
- 5) Building Energy Conservation through Financing and Incentive Programs
 - a) Alternatives for Financing
 - b) Incentives
- 6) Building Energy Conservation through Training and Certification Programs
 - a) Design Professionals
 - b) Builders
 - c) Construction Trades
 - d) Code Officials and Other Government Officials
 - e) Building Operators
 - f) Realtors, Lenders, & Appraisers
 - g) Energy Auditors, Reviewers, and Evaluators
 - h) Building Occupants/ Homeowners
 - i) Public Information Campaigns
- 7) Building Energy Conservation through Education and Public Information
 - a) K-12 Education
 - b) Post Secondary Education
 - c) Public Information Campaigns
 - d) Building Labeling Program
- 8) Building Energy Conservation through Retrofitting of Existing Buildings
 - a) Residential Retrofits

Commission on Energy Efficiency Standards and Practices
May 5th, 2010
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- b) Commercial and Industrial retrofits
- 9) The effect of compliance on indoor air quality
- 10) Additional Issues
 - a) Sustainable Design
 - b) Net Zero Energy Construction
 - c) Legislative

Coveyou led the work session on the final report. The Commission members discussed the various points of the draft report outline. The discussion points and recommendations were captured and added to the report outline. The revised outline is attached to these minutes.

There were no public comments or other business.

Chairman Crine recessed the meeting for lunch at approximately 12:00 p.m.

Chairman Crine reconvened the meeting at approximately 12:30 p.m.

The minutes of the previous meeting were reviewed by the Commission members. **Motion** by Amy Infelt to accept the minutes of the previous meeting. **Second** by Erin Buchanan. Motion passed unanimously by the Commission members.

The work session wrapped up with discussion of the schedule for June. The Commission decided to have a work session to review the rough draft of the report on June 2nd and another meeting will be held in late June to discuss the approval method of the report.

The meeting was adjourned at approximately 2:06 p.m. The next meeting for the Commission on Energy Efficiency Standards and Practices will be held on June 2nd, 2010.

Respectfully Submitted,

Brian Bishop
Construction/ Design Engineer

**Iowa Commission on Energy Efficiency Standards and Practices
Meeting Minutes
June 2, 2010**

Commission Members Present:

Kimberly Willer
Amy Infelt
Lynnae Hentzen
Erin Buchanan
Kevin Nordmeyer
James Strohman
Phil Delafield
Monica Stone
Krista Capp
Larry DeBuse

Commission Members Absent:

Steve Carroll
Mike Carroll
Stuart Crine, Commission Chairman and State Building Code Commissioner

Staff Present:

Brian Bishop, Construction/Design Engineer
Mike Coveyou, Planning & Research Administrator

The meeting was called to order at approximately 10:00 a.m. by Staff Member Brian Bishop.

Guests in attendance at the meeting included:

Jennifer Moehlman – Iowa Department of Administrative Services
Megan Osweiler – Iowa League of Cities

The minutes of the previous meeting were reviewed by the Commission members. **Motion** by Kevin Nordmeyer to accept the minutes of the previous meeting. **Second** by Kimberly Willer. Motion passed unanimously by the Commission members.

Brian Bishop provided an update concerning recent happenings with regards to the State Energy Code. The updates included the following:

- A contract between the Office of Energy Independence and Department of Public Safety has been signed. This grant will provide an engineer and building inspector to ramp up enforcement of the State Energy Code. Training will not be included in the grant due to a lack of funding. The term of this grant is from July 1, 2010 to June 20, 2012.
- Iowa has been selected by the Department of Energy as one of nine states to be included as a pilot program for energy code enforcement. Details are still being provided by the U.S. Department of Energy, Pacific Northwest National Laboratory, and MEEA on the funding, planning, and requirements of this program.

**Commission on Energy Efficiency Standards and Practices
June 2nd, 2010
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There were no committee reports.

The next item on the agenda was the final report work session facilitated by Mike Coveyou. Coveyou provided an outline of the report to the Commission members. Coveyou discussed the timeline of the final report with a draft of the final report being available at the end of June. If the report cannot be finalized by the end of June, the report will be issued sometime during the summer months. Steve Carroll asked if it would be more appropriate to hold the meeting later in the summer or fall if the final version of the report will not be ready by the end of June. Coveyou responded that a final meeting to vote on the report would be needed, since it would be rather difficult to accomplish this via email.

Coveyou reconvened the work session from the previous meeting. The recommendations on incentives and financing were discussed by the Commission.

The issues of the on-bill financing as well as other incentives and financing options were also discussed by all of the Commission members. Coveyou provided the language to be included for recommendations. Those recommendations can be found attached to these minutes.

Coveyou led the work session on the final report. The Commission members discussed the various points of the draft report outline. The discussion points and recommendations were captured and added to the report outline. The revised outline is attached to these minutes.

There were no public comments or other business.

Brian Bishop recessed the meeting for lunch at approximately 12:15 p.m.

Brian Bishop reconvened the meeting at approximately 12:50 p.m.

The work session wrapped up with discussion of the schedule for the final report. The Commission decided to communicate via email for discussions regarding the final report.

The meeting was adjourned at approximately 2:20 p.m. This was the final meeting of the Commission on Energy Efficiency Standards and Practices.

Respectfully Submitted,

Brian Bishop
Construction/ Design Engineer

DRAFT

<p>IV. Building Energy Conservation Through Financing and Incentive Programs</p>	<p><u>*Recommendation: Develop analysis of any gaps in financing and incentives for energy efficient construction.</u></p>	
<p>b. Alternatives for Financing</p> <ul style="list-style-type: none"> • Interest buy downs • On-bill financing • Special assessments • <u>Loan payments through energy savings</u> • <u>Loan loss reserves</u> 	<p><u>*Recommendation: A menu of optional financing alternatives, including interest buy-downs, on-bill financing, special assessments, loan loss reserves, and loan payments from energy costs saved should be provided as feasible in both the commercial and residential sectors to encourage energy efficient construction to meet or exceed the energy code in existing structures and to exceed the energy code in new construction.</u></p> <p><u>*Recommendation: Electric and natural gas utilities should be facilitated to provide loans and on-bill financing for energy efficiency improvements to their customers if they wish to do so.</u></p> <p><u>*Recommendation: Political subdivisions should be facilitated authorized to provide loans for energy efficiency improvements, with repayment through special property tax assessments, if they wish to do so.</u></p>	<ul style="list-style-type: none"> o Information, rather than recommendations
<p>a. Incentives</p>		<ul style="list-style-type: none"> • Rebates – Commercial/Industrial vs. Residential • Rebates – Utility Administered vs. Other? • Incentives should have favorable benefit/cost ratio (societal?). (Ck Cal PUC Web site)
<ul style="list-style-type: none"> • Rebates for Energy Efficient Construction • Rebates for Energy Efficient Equipment 	<p><u>*Recommendation: Develop options for providing Offer rebates for energy efficient construction and purchase and installation of energy efficient appliances for rebates to propane customers with furnaces fired by propane or fuel oil.</u></p> <p><u>*Recommendation: Continue to provide utility rebate incentives for energy efficient construction existing utility-administered rebate programs. Energy code should be the baseline to provide incentives for upgrading existing building components to comply with or exceed current energy code requirements.</u></p> <p><u>*Recommendation: Compliance with the energy code should be a</u></p>	

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DRAFT

	<u>prerequisite for receiving incentives for energy efficient construction.</u>	
<ul style="list-style-type: none"> • Tax credits • Tax deductions • Tax refunds 	<p><u>*Recommendations: Any tax credits, deductions, or refunds offered for energy efficient construction should meet the following criteria:</u></p> <ul style="list-style-type: none"> ○ Stability, reliability, predictably ○ Sunset provisions should be no less than 5 years ○ Allow use of TIF, SIMD for energy efficiency improvements; ○ Allow tax abatement for energy efficiency improvements ○ Program targeting <u>Participation of rental properties should be facilitated.</u> <u>Self Supporting Municipal Improvement Districts and tax abatements should be allowed for energy efficiency improvements;</u> • <u>Encourage energy efficiency improvements in Tax Increment Financing Districts.</u> 	
<ul style="list-style-type: none"> ○ Plan review/inspection incentives 	<p>*Recommendations:</p> <ul style="list-style-type: none"> ○ Expedited reviews ○ Fee waiver or reduction 	<u>No recommendations</u>

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Appendix D

Commission Correspondence



March 3, 2010

Mr. Stuart Crine
Commission Chairman
Commission on Energy Efficiency Standards and Practices
215 East 7th Street
Des Moines, IA 50319

Dear Mr. Crine:

In response to the request from the Commission on Energy Efficiency Standards and Practices to provide input on energy efficiency matters under the Commission's purview, the Iowa League of Cities is providing the following remarks.

The League would first like to thank the Commission on behalf of the cities of Iowa for their efforts in the area of energy efficiency in the state. Energy efficiency is of great interest to our cities. Some of our communities have taken a particular interest in the area and have gone above and beyond to create additional energy efficiency programs in their cities.

The League strives to provide educational training and support for its member cities in these interest areas. We also send out information and materials from other entities to ensure our cities are aware of any outside training or other opportunities. We would be happy to distribute any information that the Commission may have in the interest of our members.

The League could not be supportive of any change suggested by this Commission that would infringe on cities home rule powers and authority authorized by the *Iowa Constitution* and *Code of Iowa Section 364.1*. The League would instead prefer provisions that allow flexibility for communities to choose what is best for the citizens on the local level.

The League could also not support any change suggested by this Commission that would create a state unfunded mandate as described in *Chapter 25B* of the *Code of Iowa* especially during a time of economic hardship for both cities and their citizens.

The League would like to thank the Commission for providing us with the opportunity to provide input and we would be happy to continue working with the Commission towards the goal of energy efficiency in Iowa. Please let us know if there is anything that we can do to help in this effort.

Sincerely,

A handwritten signature in black ink that reads "Alan W. Kemp".

Alan W. Kemp
Executive Director

Serving Iowa's cities
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