HB

148

<target><bill>HB 148</bill><subject>HB
148</subject><comm>HENE26</comm></target>

ALASKA STATE LEGISLATURE

REPRESENTATIVE LES GARA
REPRESENTATIVE BILL THOMAS

MEMORANDUM

DATE: March 1, 2009

TO: Representative Charisse Millett
Representative Bryce Edgmon

FROM: Representative Les Gara
Representative Bill Thomas

RE: Hearing Request for HB 148

We respectfully request that House Bill 148, relating to energy efficiency, be scheduled for a hearing in the House Energy Committee. Please feel free to contact Representative Gara, or aide Katie Conway, with questions or thoughts at 465-6591.

Attached you will find a background packet for HB 148. This includes the current version of the bill, a sponsor's statement, sectional analysis and backup materials.

Thank you for your consideration.

REPRESENTATIVE BILL THOMAS

ALASKA STATE LEGISLATURE DISTRICT 5

State Capitol
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Representative Charisse Millett, Co-Chair
Representative Bryce Edgmon, Co-Chair
House Special Committee on Energy

March 26, 2009

Dear Co-Chairs,

I respectfully request that HB 148 be heard at your earliest convenience.

In these challenging times of high energy costs and budget constraints at both the state and national level it is our responsibility to apply vigorous, creative solutions for Alaska.

HB 148 is an opportunity for Alaska to take the lead in nationwide efficiency standards with an energy plan to reduce the energy consumption in state run buildings. It also provides a funding mechanism for non-state entities to follow suit.

Specifically, this legislation requires that Department of Transportation and the Courts abide by the International Energy Conservation Code for certified buildings. This is the standard that is quickly becoming the universal code for energy efficiency. Additionally, the Department of Transportation will be required to present a report to the legislature on the currently mandated energy audits, ensuring proper oversight of this program.

Finally, HB 148 creates a grant program for non-state public facilities, such as school and municipal buildings. This effort is aimed at cutting long term energy expenses, and reducing the demand for energy in Alaska while nurturing the growth of an Alaskan energy efficiency industry.

By making a commitment to enforce ourselves as well as support others in the pursuit of energy efficiency, we save the state money, set an example for others, and help our constituencies.

The time is right for the Sate to lead by example toward a future in which balancing the budget and helping Alaskans are not mutually exclusive. I hope you'll join me in supporting this bill. If you have questions please do not hesitate to call my office.

Sincerely,

Bill Thomas

Representative Bill Thomas

email: Representative.Bill.Thomas@legis.state.ak.us
webpage: www.akrepublicans.org/thomas/

ALASKA STATE LEGISLATURE

REPRESENTATIVE LES GARA
REPRESENTATIVE BILL THOMAS

Sponsor Statement
HB 148 – Energy Efficiency Plan and Grant Fund

As we enter an era of high fuel prices, Alaska should have an energy savings plan. House Bill 148 is a bi-partisan effort to create a plan for upgrading the energy efficiency of public facilities. The legislation also creates a grant program for non-state public facilities, such as school and University of Alaska buildings. The effort is aimed at cutting long term energy expenses, and reducing the demand for energy in Alaska.

HB148 commits Alaska government to lead by example with a plan to reduce energy consumption and improve energy efficiency in buildings. The Department of Transportation and Courts are both tasked to construct International Energy Conservation Code (IECC) certified buildings—a standard of efficiency quickly becoming universal around the rest of the United States for state building efficiency codes and federal efficiency legislation.

HB148 encourages the use of performance contracting—a fancy way of saying "we pay, you save." This is good for the third party businesses contracted to do the efficiency improvements, creating jobs and fueling a growing energy efficiency industry. This is also good for the state agencies who quickly realize cost savings without ever having to put a lot on the line in overhead expenses.

HB148 holds DOT accountable for the energy audits they are already mandated to do but don't. With the cost of energy so fresh on everyone's mind the legislature should know exactly how much of a limited budget is going to wasted energy. Likewise, we should also know that implementing efficiency measures is saving us resources.

HB148 creates a funding mechanism that allows school districts and municipalities or small communities to undertake energy efficiency improvements as well. Particularly in rural Alaska, better insulated windows or a new boiler can mean more money to put toward resources with a much greater return, like school books or sports equipment.

Energy efficiency makes CENTS. Often called the "low hanging fruit" of smart growth, making the choice to be more energy efficient saves money and resources. In tough economic times, it's practical to cut back on spending by making what energy we do use spread further. The time is right for the State to lead by example toward a future in which balancing the budget and helping Alaskans are not mutually exclusive. I hope you'll join me in supporting this bill. If you have any questions please do not hesitate to call my office.

Thank you.

LEGAL SERVICES

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LEGISLATIVE AFFAIRS AGENCY
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MEMORANDUM February 27, 2009

SUBJECT: Sectional summary of HB 148 (Work Order No. 26-LS0528\P)

TO: Representative Les Gara
Attn: Katie Conway

FROM: Brian J. Kane BJK
Legislative Counsel

You have requested a sectional summary of HB 148, a bill relating to a state energy use reduction plan and energy efficiency improvement contracts and to energy audits of public buildings conducted by the Department of Transportation and Public Facilities; relating to agency capital budget requests; and establishing an energy efficiency grant fund in the Alaska Housing Finance Corporation.

Please note that a sectional summary of a bill is not an authoritative interpretation of a bill. The bill itself is the best statement of its contents.

Section 1 of the bill states the legislative intent for the bill.

Section 2 adds the administering of grants from the energy efficiency fund to the duties of the Alaska Housing Finance Corporation.

Section 3 of the bill creates the energy efficiency grant fund, providing for the Alaska Housing Finance Corporation to make grants to municipalities, unincorporated communities, school districts, and the University of Alaska for energy efficiency improvements and enhancement. This section also sets qualifications and priorities regarding grants awarded from the energy efficiency grant fund.

Section 4 of the bill amends the authority of the supreme court in regard to court buildings so that the supreme court must comply with the state energy use reduction plan.

Section 5 of the bill amends the Executive Budget Act to state that an agency requesting an appropriation in excess of $1,000,000 for capital improvements must submit to the legislature a report including the most recent energy audit report, a proposal for energy efficiency improvements, and a cost-savings analysis.

Section 6 of the bill requires the Department of Transportation and Public Facilities to submit to the legislature a report each year summarizing the energy audits conducted under AS 44.42.065.

Section 7 of the bill instructs the Department of Transportation and Public Facilities to prepare and adopt a state energy use reduction plan and to consider the use of performance energy contracts, if cost-effective.

Section 8 of the bill requires the Department of Transportation and Public Facilities to submit a report to the legislature no later than January 31, 2010, that summarizes information gathered and recommendations made by the department related to the department's most recent energy audit.

Section 9 of the bill provides an effective date of July 1, 2010.

BJK:plm
09-126.plm

FISCAL NOTE

STATE OF ALASKA
2009 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: HB148
() Publish Date:

Identifier (file name): HB148-DFG-DAS-04-07-09
Dept. Affected: Fish and Game
Title: An act relating to a state energy use reduction plan and energy
RDU: Administration and Support
Component: Administrative Services
Sponsor: Thomas, Holmes, Salmon, Seaton, Wilson, Petersen, Kerttula, Buc
Requester: House Special Committee on Energy, State Affairs, Finance
Component Number: 479

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2010**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**
Personal Services							
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF							
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts							
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2009) cost:

POSITIONS

Full-time							
Part-time							
Temporary							

ANALYSIS: *(Attach a separate page if necessary)*

Indeterminate impact. Section 5 as written would cause the department to expend funds (possibly significant) for studies and analysis prior to the submission or approval of a capitlal project appropriation request. If necessary, this specific section should be included in the formal design phase after a project appropriation is approved.

Prepared by: John White, Procurement Specialist V
Phone 907-465-6178
Division: Administrative Services
Date/Time 4/7/09 1:15 p.m.
Approved by: Tom Lawson, Director of Administrative Services
Date 4/7/2009
Department of Fish and Game

(Revised 9/10/2008 OMB)

FISCAL NOTE

STATE OF ALASKA
2009 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: **HB 148**
() Publish Date:

Identifier (file name): HB148-DOR-AHFC-04-07-09
Title: ENERGY EFFICIENCY PLAN AND GRANT FUND
Sponsor: Representative Gara
Requester: (H) Energy

Dept. Affected: Revenue
RDU: Alaska Housing Finance Corp.
Component: Operations
Component Number: 110

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2010**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**
Personal Services							
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF							
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts							
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2009) cost:

POSITIONS

Full-time							
Part-time							
Temporary							

ANALYSIS: *(Attach a separate page if necessary)*

House Bill 148 proposes to establish an energy efficiency grant fund in the Alaska Housing Finance Corporation to provide grants for energy efficiency projects for various public buildings.

AHFC does not expect a fiscal impact from the passage of this bill. At the point in which there would be funds deposited into the fund, there would be an expense to the Corporation for the administration of the program but that fiscal impact would be dictated by the size of the appropriation into the fund which is currently unknown.

Prepared by: Bryan Butcher, Director, Governmental Relations/Public Affairs — Phone 330-8445
Division: Alaska Housing Finance Corporation — Date/Time 4/7/09 12:00 AM
Approved by: Ginger Blaisdell, Director — Date 4/8/2009
Administrative Services Division

(Revised 9/10/2008 OMB)

LEGISLATIVE RESEARCH REPORT

DECEMBER 10, 2008 REPORT NUMBER 09.056

ENERGY EFFICIENCY STANDARDS IN STATE PUBLIC FACILITIES

PREPARED FOR REPRESENTATIVE LES GARA

BY DANIEL LESH, LEGISLATIVE ANALYST

You asked about energy efficiency standards in state public facilities in Alaska. Specifically, you wanted to know of any current statutes regarding energy efficiency audits or minimum standards for public facilities, as well as any related state programs. You also asked about public facility energy efficiency programs in other states, and the cost effectiveness of each program.

ALASKA

No Minimum Energy Efficiency Standards

According to Joel St. Aubin, chief of statewide public facilities, Alaska Department of Transportation and Public Facilities, there are no minimum energy efficiency standards for state facilities.[1] Mr. St. Aubin notes, however, that "in practice, when a new building is constructed, or an existing building is remodeled or repaired, we choose the most energy efficient design that the budget will allow, and will meet the applicable building codes." Applicable commercial building codes in Alaska include the following: the building, mechanical, fuel gas, and fire codes of the International Code Council, the Uniform Plumbing Code, and the National Electric Code.[2] Alaska has not adopted—for government or commercial buildings—any of the standard energy efficiency codes adopted by many other states. These codes include the International Energy Conservation Code (for residential and smaller commercial buildings), International Existing Buildings Code (for renovations to existing buildings), and the American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE) code (for larger commercial buildings).[3]

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[1] Mr. St. Aubin can be reached at (907) 269-0823.

[2] In Alaska, the state fire marshal adopts the building, mechanical, fuel gas, and fire codes and the Department of Labor adopts the plumbing and electric codes.

[3] Anchorage, however, has adopted the International Energy Conservation Code, and all new state buildings or major renovations to existing state buildings in Anchorage must follow these codes. The only statewide energy code is a modified version of the residential International Energy Conservation Code that was adopted in 1992. The code applies only to residential buildings financed with underwriting from the Alaska Housing Finance Corporation, and is not applicable to state buildings.

Required Energy Audits of State Facilities Are Not Being Performed

Under Alaska Statute 44.42.065 (Attachment A), the Department of Transportation and Public Facilities (DOT&PF) is directed to perform an energy audit of each public building every seven years. Each audit is to include the following:

> recommendations for corrective measures to improve the energy efficiency and to minimize the life-cycle cost of the public building surveyed. These measures may include (1) energy conservation measures, (2) measures involving solar technology and other alternative energy systems, (3) energy management, and (4) maintenance and operating procedures and energy-related modifications. In recommending the corrective measures, the department shall give priority to changes in maintenance and operating procedures over measures requiring substantial structural modification or installation of equipment.

According to Joel St. Aubin, AS 44.42.065 has not been implemented as a formal program, as the legislature has never funded the program. However, according to Rob Carpenter, fiscal analyst, Alaska State Legislature, this statute is not dependent on legislative appropriation and the department's base funding is designed to cover this type of statutory responsibility.[4] Alaska Statute 44.42.065 has undergone substantial amendment only once since its 1980 establishment: legislation in 1994 (ch. 126 SLA 1994) removed an annual requirement that the building audits completed in the previous year be submitted to the legislature each spring.

Performance Contracting Used by DOT&PF to Complete Energy Efficiency Upgrades

Beginning in the late 1990's, the DOT&PF initiated an energy performance contracting program to complete energy upgrades of state facilities.[5] Under the program, a contractor (called an energy service company or ESCO) performs energy audits, recommends measures to improve a building's operating performance, completes the building upgrades, and reimburses the state if realized savings are less than an agreed-upon cost savings guarantee. The voluntary program relies on the interest of building managers, and does not specifically attempt to identify, or compel the participation of, the most inefficient state facilities.

Twenty-four state facilities have participated in the DOT&PF's performance contracting program. Improvements to the first round of eight buildings were completed in 2006, with guaranteed utility cost savings of $277,446 annually and an additional, projected annual savings of $43,300. Subsequently, eight additional buildings have completed energy upgrades through the program and eight others (the participating facilities of the Department of Health and Social Services) have completed the audit portion of the program and will implement any efficiency upgrades through their own budgets when feasible.[6]

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[4] Mr. Carpenter can be reached at (907) 465-5413.

[5] The program is not specifically addressed in statute, but follows general state procurement guidelines covered in AS 36.30. Information on the state performance contracting program was obtained from Joel St. Aubin.

[6] For a list of the 24 state facilities that have participated in this program, please see Attachment B.

OTHER STATES' EFFICIENCY STANDARDS

ENERGY CONSERVATION BUILDING CODES

According to information compiled by the Building Codes Assistance Project (BCAP), almost all states have adopted basic energy conservation codes applicable to new state buildings.[7] The most commonly implemented codes are the International Energy Conservation Code (for residential and smaller commercial buildings) and the American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE) code (applicable to all commercial buildings)—though other comparable standards are used in some states.[8] As of November 2008, **thirty-nine states** have adopted a 1999 or more recent version of one of these standard codes that applies to new state buildings. In addition, four states (Indiana, Minnesota, Mississippi, and Missouri) have adopted relevant energy efficiency codes that are equivalent to older versions of the standard codes.[9]

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[7] The Building Codes Assistance Project—a joint project of the Alliance to Save Energy, the American Council for an Energy-Efficient Economy, and the Natural Resources Defense Council—provides information and assistance to state and local governments regarding building energy code adoption and implementation.

[8] These codes are developed by private organizations with input from the U.S Department of Energy, and are copyrighted documents. A description of the International Energy Conservation Code, which is similar to the ASHRAE code, is provided below, excerpted from an International Energy Agency report on building energy codes (Attachment C):

> The International Energy Conservation Code 2004 (IECC 2004) is a model building code or standard for energy efficiency of new buildings. It was devised by the International Code Council (ICC), and is based on US conditions and traditions for energy efficiency regulation. This code IECC 2004 sets rules for residential (with less than 4 floors) and for small and less complicated commercial buildings while it contains a reference for the ASHRAE for large and complex buildings. There is an emphasis on new buildings.
>
> Rules are based on climatic zones, which are set based on cooling degree days CDD and heating degree days HDD and some humidity conditions. In general, the US is split into 8 different zones, based on the level of cooling and heating. Some humidity conditions divide the zones into dry, humid and marine areas.
>
> Rules are set as prescriptive values for building parts, heating and cooling systems, ventilation and lightning. Insulation requirements are set as R-values or U-factor where U = 1/R for each climatic zone separately. These values have to be fulfilled for each building part in the prescriptive model. Some specific regulations are given for pipe and duct insulation, air tightness, sealing, hot water systems, mechanical ventilation and circulation of hot water. Rules for heating and cooling equipment are only given as sizing requirements IEEC also includes a trade-off model where some parts can be made with less energy efficiency as long as the total building still fulfils the same overall requirements which would be the result of fulfilling each single demand. In this model the same values are used for the trade off model as reference values for the model building. The trade-off model is based on energy costs which take into account the different energy costs for gas, oil or electricity. Specific and more detailed values are set for some steel solutions. Finally it contains a frame with an overall assessment where total values have to be obtained. The energy efficiency requirements for residential buildings and those for new commercial buildings are indicated in two separate chapters. The prescriptive model is described as Mandatory Requirements, while the trade-off model is referred to as Performance Based requirements. Finally there are some requirements for the use of software for the Performance based model Some basic assumptions are set for the reference buildings used in the trade off model such as amount of windows (18 % of floor area) and calculation values.
>
> The IECC apply for major renovation and refurbishment projects too. The values R-values and U-factors (prescriptive) in the regulation have to be fulfilled in some renovation projects, for example a full exchange of windows must comply with the energy efficiency requirements for windows. A special standard is developed for refurbishment of existing buildings, International Existing Building Code (IEBC).

[9] For a map of which states have adopted which codes, please see Attachment D, a map compiled by the BCAP. More detailed information on each state's codes is available on the BCAP's website, *http://www.bcap-energy.org/node/5*.

GREEN BUILDING STANDARDS

A large and growing number of states have mandated green building standards for new and renovated state buildings. The most common requirement in these states is U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) certification, which addresses a wide range of environmental and human health impacts related to buildings.[10] This certification includes a number of basic requirements in each of the following categories: land use (construction impacts, site selection, etc.); water efficiency; energy and atmosphere (energy efficiency, renewable energy generation, etc.); materials and resources (recycled and reused building materials, etc.); and indoor environmental quality (ventilation, non-toxic materials, etc.). In addition to the basic requirements, there is a total point requirement that can be achieved by excelling in some or all of the categories

It is important to note that LEED certification does not necessarily guarantee that a building is energy efficient. A recent study funded by the U.S. Green Building Council (Attachment E) sampled a group of recently-constructed LEED certified buildings at all four levels of certification (certified, silver, gold, and platinum, in increasing order of "greenness"), and found an average energy star rating of 67. (An energy star rating of 50 is equal to the median energy efficiency level of all U.S. buildings.) Despite the above average performance of most LEED buildings, a full quarter of the buildings studied fell below an energy star rating of 50, including buildings in all levels of certification. This is a result of the fact that LEED energy efficiency requirements are fairly basic, and a builder can choose to earn the points needed for a certain rating by excelling in one of the non-energy categories described above.[11]

Currently, at least twenty states require LEED or comparable certification for all new state buildings, or all new state buildings over a minimal size or cost level.[12] Most of these states also apply this requirement to major renovations of existing state buildings, though states vary in how they define which types of renovations apply. In two additional states (Illinois and Ohio), new public schools, but not other state buildings, must obtain LEED certification. Four states—Arkansas, Louisiana, New York, and Wisconsin—have made less aggressive steps in this area, including the adoption of policies encouraging green building by the state, or the creation of a commission to study the issue.

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[10] The U.S. Green Building Council is a non-profit organization composed of 15,000 member groups, including building owners, real estate developers, facility managers, architects, designers, engineers, general contractors, subcontractors, product and building system manufacturers, government agencies, and nonprofits.

[11] We note that legislation passed in South Carolina partially addresses this issue by requiring state buildings to achieve a minimum of four credits under the LEED Energy and Atmosphere Credit #1 "Optimize Energy Performance." We include this statute, South Carolina Code of Laws § 48-52-830, as Attachment F

[12] For more information on each state's green building requirements, please see the website of the U S Green Building Council, *http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1852#state*. The twenty states that require green building certification are Arizona, California, Colorado, Connecticut, Florida, Hawaii, Indiana, Maine, Maryland, Massachusetts, Michigan, Nevada, New Jersey, New Mexico, Oklahoma, Rhode Island, South Carolina, South Dakota, Virginia, and Washington.

SPECIFIC ENERGY CONSERVATION STANDARDS DIRECTED AT EXISTING BUILDINGS

The energy codes and green building requirements described above generally address only new state buildings or major renovations to existing state buildings. However, a small number of states have implemented specific policy measures to address the energy efficiency of ***existing*** state facilities. For instance, Arizona Revised Statutes § 34-451 requires that three state agencies reduce energy use per square foot in public buildings they administer by ten percent by 2008 and fifteen percent by 2011.[13]

Glen Anderson, National Conference of State Legislatures, highlights the state of Minnesota as a leading example in this area.[14] A 2005 executive order in this state required all state agencies to reduce energy use in their facilities by ten percent during the following year. A follow-up report (Attachment H) concluded the state saved $1.5 million as a result of this action, though not all agencies were able to meet the ten percent target.

It appears that most states avoid mandating specific energy efficiency targets in favor of more incremental approaches, such as public and employee education, revolving loan funds, performance contracting programs, and improvements to state procurement guidelines. Numerous states have signed on to the U.S. Environmental Protection Agency's general call to consumers to reduce energy use by ten percent—a program known as the Energy Star Challenge. Brief descriptions of each state's approach can be accessed at the challenge's webpage, *http://www.energystar.gov/index.cfm?fuseaction=challenge.showWelcome&sortby=org*.

California appears to take a hybrid approach, relying on a broad suite of incremental approaches but also establishing a specific energy efficiency goal for the state. California Executive Order S-20-04 specifically targets a twenty percent reduction in state energy use by 2015. However, the order does not mandate that this level of energy reduction be reached by each state agency. We include this executive order, which also outlines the broad range of energy efficiency strategies to be employed by various state agencies, as Attachment I.

For a list of energy efficiency measures suggested by the Alaska Energy Authority for adoption in our state, please refer to Attachment J, a report titled "Alaska Energy Efficiency Program and Policy Recommendations." This document recommends that Alaska adopt a commercial energy efficiency code, conduct energy audits of public schools, establish a low-interest loan program for energy efficiency upgrades to state facilities, and adopt a policy to reduce energy consumption by state agencies by twenty percent from 2000 levels by 2020, among other recommendations.

We hope you find this information to be useful. Please let us know if you have questions or need additional information.

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[13] The Arizona agencies named in this statute are the Department of Administration, the Arizona Board of Regents, and the Department of Transportation. We include this statute as Attachment G. We were not able to find information on the cost effectiveness of Arizona's program in the time allotted.

[14] Mr. Anderson can be reached at (303) 856-1341.

LIST OF ATTACHMENTS

Attachment A

Alaska Statutes § 44.42.065

Attachment B

Alaska State Facilities Participating in the Energy Savings Performance Contracting Program
Alaska Department of Transportation and Public Facilities

Attachment C

"Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings"
International Energy Agency, March 2008

Attachment D

"Commercial State Energy Code Status, As of November 2008"
Building Codes Assistance Project

Available at *http://bcap-energy.org/files/commercial_with-legend.pdf*

Attachment E

"Energy Performance of LEED for New Construction Buildings"
New Buildings Institute, March 2008

Attachment F

South Carolina Code of Laws § 48-52-830

Attachment G

Arizona Revised Statutes § 34-451

Attachment H

"State Agency Energy Conservation: A Progress Report on Governor's Executive Order 05-16"
Minnesota Department of Administration

Attachment I

California Executive Order S-20-04

Attachment J

"Alaska Energy Efficiency Program and Policy Recommendations"
Cold Climate Housing Research Center
Prepared by Information Insights, Inc.
Project funded by Alaska Energy Authority and Alaska Housing Finance Corporation

LEGISLATIVE RESEARCH REPORT

FEBRUARY 2, 2009

REPORT NUMBER 09.091

ENERGY EFFICIENCY IN ALASKA SCHOOL BUILDINGS

PREPARED FOR REPRESENTATIVE LES GARA

BY HEATHER PARKER, LEGISLATIVE ANALYST

You asked about energy efficiency programs in schools in Alaska. Specifically, you wanted to know which energy efficient projects and programs are currently in place in Alaska schools, which programs and building improvements would be most effective in those schools, and the conclusions of any analyses done regarding the energy efficiency of Alaska school buildings.

CODES AND STATEWIDE MINIMUM STANDARDS

Alaska does not have a statewide energy conservation code for public or commercial buildings or a minimum statewide energy efficiency standard applicable to all school buildings.[1] Sam Kito, facilities technical engineer and architect, Department of Education and Early Development, points out that some energy standards are indirectly written in statute; as provided in AS 14.11.011(b)(4)(A)(ii), schools are eligible to apply for a maintenance or construction grant (also known as a capital improvement plan or CIP funding) from the state only if they meet certain requirements—in particular, schools must have a preventative maintenance plan that allows them to annually collect certain data on utilities used in school buildings owned or operated by the district.[2] This plan is loosely defined and varies greatly from district to district. Mr. Kito explains that all school districts but one regularly apply for CIP funds and strive to meet this criterion.[3]

We contacted superintendents from each of the 53 Alaska school districts with a survey of questions regarding the current status and needs of buildings in their districts. We received

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[1] Anchorage and the Matanuska-Susitna Borough have chosen to require all new buildings, including schools, to meet national or international "green" building certification standards. Anchorage has adopted the International Energy Conservation Code (2006); in 2007, the Matanuska-Susitna Borough adopted the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) "Silver" standard for all new construction and additions of 10,000 square feet or greater.

[2] Mr. Kito can be reached at (907) 465-6906. We include AS 14.11.011 as Attachment A.

[3] Mr. Kito explains that the Aleutians Region school district does not apply for CIP funds.

responses from 16 of the school districts.[4] Of these, all reported problems with basic infrastructure, energy efficiency, and rising fuel costs.[5] All cited financial reasons—not federal or state standards or requirements—for retrofitting or upgrading their school facilities.

ENERGY EFFICIENCY RESOURCES AVAILABLE TO ALASKA SCHOOL DISTRICTS

We were unable to locate any federal or state grant or loan programs specifically targeting energy efficiency gains in schools. The relevant state and federal programs we identified were broad, competitive grant programs under which school districts compete against a wide range of other projects and are often required to provide a significant contribution themselves. Unlike Alaska home owners, schools are not currently eligible for specific weatherization grants or rebates.[6] We present below the federal and state energy efficiency programs we identified, along with district-wide and individual school projects in Alaska.

FEDERAL AND STATE PROGRAMS

Federally sponsored programs

The Village End Use Efficiency Measures initiative attempts to increase energy efficiency and reduce the amount of diesel brought into rural Alaska communities. Funded by the Denali Commission and implemented by the Alaska Energy Authority and the Alaska Building Science network, the program works to replace energy efficient lighting switchboxes and motion sensors, and to apply weather stripping and low mass boilers in villages that have recently received an upgrade to their local power system.[7] Though not designed specifically for school buildings, the program directly benefits schools. Between January 2005 and January 2007, the program worked with 17 villages, retrofitting 152 community buildings and 110 teacher units.[8]

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[4] We received responses from Alaska Gateway, Anchorage, Chugach, Cordova City, Delta-Greely, Galena City, Haines Borough, Hydaburg City, Juneau, Kenai, Kuspuk, Lower Kuskokwim, Pelican City, Saint Mary's, Sitka, and Wrangell City school districts. Refer to Table 1 at the end of this report for more information.

[5] Several superintendents noted that their school buildings were over 30 years old. Six mentioned a need for improved insulation and one noted that doors to school buildings do not currently close.

[6] The Alaska Housing Finance Corporation has a home energy rebate program in which a homeowner, upon completing specific renovations for energy efficiency, can be eligible for a one-time rebate of up to $10,000. For more information on this program, refer to *http://www.ahfc.state.ak.us/energy/weatherization_rebates.cfm#The_Home_Energy_Rebate_Program*.

You may be interested to note that a rebate program exists in statute for schools that reduce the amount of waste used. Under AS 46.11.070, schools that significantly reduce the amount of waste used by students and staff and improve recycling efforts may—subject to available funding—be eligible for awards of up to $2,000. Sandra Woods, environmental specialist II, Solid Waste Program, Division of Environmental Health, Department of Environmental Conservation, notes that no such program is currently active due to lack of funding. Ms. Woods can be reached at (907) 465-5318

[7] The Denali Commission provides rural power system upgrades to meet basic standards for safety, reliability, and environmental protection in power plant and distribution systems of select Alaska villages. Upgrades are distributed to those communities with the highest need. For more information on the Denali Commission, refer to *www.denali.gov/*

[8] Communities that have participated in Phase I of the Village End Use Efficiency Measures initiative include Buckland, Elim, Gambell, Golovin, Koyuk, Old Harbor, Port Heiden, Savoonga, Selawik, Chefornak, Chevak, Kasigluk, Kongiganak, Kwigillingkok, Mekoryuk, Nunapitchuk and Quinhagak. Phase II includes 14 villages; Phase III, 20 villages. All projects are projected to be complete by 2010. For more information on the program, please refer to *http://www.akenergyauthority.org/programsalternativeVEUM.html*. We include the final report on Phase I of this program as Attachment B.

The EnergySmart School program (U.S. Department of Energy) is another federal program specifically designed to help school districts become more energy efficient. Though the program cannot provide grants or loans for school projects, it provides other resources, such as publications, suggested energy standards, recommendations and design manuals for construction of new buildings or retrofitting, and training sessions for administrators and teachers.[9] It is unclear how many schools in the state currently use this resource.

State programs that schools can use for energy efficiency

As mentioned earlier, schools that meet the preventative maintenance requirements described in AS 14.11.011(b)(4)(A)(ii) are eligible to apply for capital improvement (CIP) funds through the Department of Education and Early Development for construction or major maintenance projects. Under this program, schools with a specific project in mind can either apply for a grant or for debt reimbursement. Don Hiley, facilities program manager at Southeast Regional Resource Center, explains that although CIP funds are not specifically for energy efficiency projects, schools can rarely get funding directly for energy efficient upgrades and as such, try to become more energy efficient when completing a construction project or retrofit that applies under these grants.[10] Sam Kito, Department of Education and Early Development, notes that this past year, 38 school districts applied for CIP funding.[11]

Schools can also receive funding for energy efficiency projects from the Alaska Energy Authority's energy cost reduction program. This program provides grant and loan financing for project proposals that reduce the cost of power and heat in Alaska communities. According to Rebecca Garrett, program manager for the Alternative Energy and Energy Efficiency Program, at least two school districts—Anchorage and the Aleutian East Borough—have received funding through this program for lighting retrofits in school buildings this past year.[12]

According to Joel St. Aubin, chief of statewide public facilities, Alaska Department of Transportation and Public Facilities, performance contracting is currently available to school districts.[13] Performance contracting—a program in which a contractor audits a building and provides recommendations for upgrades with the guarantee that the resulting energy and operating savings will be sufficient to fund the project—has not been used by any school district to date.

State programs for renewable energy

School districts are eligible to apply for funding from the Alaska Energy Authority for projects that produce renewable energy for school buildings. Through HB 152 (Ch 31 SLA 08), the legislature established the Renewable Energy Grant fund and awarded AEA $50 million annually for the next

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[9] For more information on the EnergySmart school program, refer to *http://www1.eere.energy.gov/buildings/energysmartschools/.*

[10] Mr. Hiley can be reached at (907) 586-6806. Southeast Regional Resource Center is a non-profit organization that has helped many schools through the process of applying for these grants.

[11] Mr. Kito projects that out of approximately 200 applications roughly 32 are for school construction projects and approximately 136 are for major maintenance projects. Of these, he estimates that 25 will receive CIP funding.

[12] Ms. Garrett can be reached at (907)-771-3042. The Alternative Energy and Energy Efficiency Program is program managed and funded largely by the Alaska Energy Authority. We include the "Alternative Energy and Energy Efficiency Program Assistance Plan," which details current projects run by the Alaska Energy Authority, as Attachment C. The energy cost reduction program is not specific to schools.

[13] Mr. St. Aubin can be reached at (907) 269-0823.

five years to fund renewable energy projects.[14] The money can be used for feasibility studies and energy resource monitoring. Butch White, grants administrator for the renewable energy grant program, explains that though the program is not specific for school districts, both Copper River and Delta-Greely schools have already applied and received this award mid-January of this year.[15]

School District-Wide Energy Programs

Of the 16 school districts that responded to our survey, two mentioned district-wide programs to encourage energy efficiency in all school buildings under their jurisdiction. The most aggressive of these, Anchorage, established a year-long energy conservation pilot program from January 1, 2006, through January 1, 2007, with the goal of reducing energy use by 10% through an initial energy audit and increased awareness of energy conservation through teacher and staff training. Nine schools actively participated in the program, reducing electricity use by 11.2% and natural gas use by 6.5%, for a total of $114,361 in savings to the district.[16]

Kenai has a district-wide program that allows for individual schools to make money by conserving energy. Individual schools that save the district money in fuel costs receive those savings directly and can use the funds as needed for supplies or improvements for their school buildings. Paul Brenner, energy conservation manager for the school district, notes that the program is effective because schools see direct financial results.[17] He also explains that the school district recently purchased the use of an online program that allows him to track energy usage in all school buildings in the district. With this program, schools can compare energy usage and compete to reduce the total amount of energy used in individual schools.

Energy Projects at Individual Schools

Several superintendents expressed an interest in alternative fuel projects, especially in rural areas with high fuel costs. As mentioned above, Delta-Greely and Alaska Gateway school districts have both applied for grants for woodchip boilers for their schools. Similarly, Cordova City and Galena City schools are currently using waste oil boilers to provide some heat for certain school buildings. Finally, Jim Nygaard, superintendent of the Cordova City school district, explained that students had installed a wind generator for a science project, allowing the science classroom to produce its own power.[18] A few schools had done cost analyses on the feasibility of these projects; in a study of the woodchip boiler project, the Alaska Gateway school district found that the district would save approximately $125,000 annually for a single school. Further, the Galena City district reported savings of approximately $300,000 a year in heating fuel since the establishment of a waste oil boiler in one building.

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[14] For more information on the Renewable Energy Grant fund, refer to *http://www.akenergyauthority.org/RE_Fund.html*.

[15] Mr. White can be reached at (907) 771-3048. The Copper River and Delta-Greely school districts were announced as recipients of funds through this program on January 14, 2009. For more information on the renewable energy fund project grants, refer to *http://www.aidea.org/AEA/RE_Fund.html*.

[16] For more information on the program, refer to "Energy Conservation Pilot Program, Final Report (January 2007)" in Attachment D.

[17] Mr. Brenner can be reached at (907) 714-8825. He notes that in the past year, for example, he distributed approximately $2,000 to a K-2 elementary school and $4,100 to a high school in Homer.

[18] Mr. Nygaard can be reached at (907) 424-3265.

Other energy efficiency efforts in the 16 school districts that responded include switching to more energy efficient lights in buildings, providing additional insulation, using fewer lights and less heat when buildings are not in use, and promoting energy conservation education. A few schools recently installed digital controls in buildings, allowing facilities management to monitor lights and heat off site. Jim Smith, superintendent of the Galena City school district, mentions his district's hosting of a statewide rural energy conference geared to promote education on energy efficiency.[19] Mr. Nygaard of the Cordova City school district describes a few unique energy efficiency measures that students at his schools have taken, including removal of lights from vending machines and removal of door stops from all exterior doors.

Though districts had completed energy audits for a few individual buildings, few districts had completed an energy audit of all school buildings. Of the 16 schools contacted, only the Galena City School District reported completing energy audits at all schools in the district.[20]

Recommendations made by the Alaska Energy Authority

Given the current ad hoc and unorganized energy efficiency efforts described in this report, it is not surprising that the Alaska Energy Authority released a set of recommendations in 2008 that encourage state involvement in school energy efficiency efforts. The Alaska Energy Authority recommendations to the legislature include the following: to provide funding for conducting an energy audit for every school in the state; to provide funding for institutional conservation grants for schools, educate teachers and staff about energy conservation; and to provide funding for the Alaska Energy Authority to establish a low interest loan program for energy improvements in public facilities.[21] The Alaska Energy Authority estimates that energy audits and user education could reduce energy usage by approximately 10% in one year, saving schools across Alaska approximately $2 million.[22]

Finally, in a 2004 study of energy programs in rural Alaska, the Alaska Energy Authority explains that basic steps taken for energy efficiency—such using high-efficiency lighting or replacing electric water heaters—would significantly reduce the costs of electricity and heating fuel in villages. Based on an assessment of current use of energy in Canadian schools in the Yukon Territories, there could be reduced use of fuel and electricity of up to 50% in rural Alaska school facilities with potential cost savings of several thousand dollars.[23]

I hope you find this information to be useful. Please do not hesitate to contact us if you have questions or need additional information.

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[19] Mr. Smith can be reached at (907) 656-1883, extension 107.

[20] Mr. Smith explains that energy audits have been done for all 17 sites in the district.

[21] For more information on the recommendations of the Alaska Energy Authority, refer to pages 42-44 in "Alaska Energy Efficiency Program and Policy Recommendations" (Attachment E).

[22] Information is provided in page 42 of "Alaska Energy Efficiency Program and Policy Recommendations."

[23] Refer to pages ES-10 and ES-11 of "Alaska Rural Energy Plan: Initiatives for Improving Energy Efficiency and Reliability – Volume I: Executive Summary" (Attachment F).

Table 1: Energy Efficiency Projects in Alaska School Districts

District Name	Current Projects for Energy Efficiency	Potential Projects Needed	Special Regional Considerations	Results of Cost Benefit Analyses
Alaska Gateway Schools	looking into alternative energy grant	looking for alternative energy grant to reduce hazardous fuels in Tok area; interest in converting from oil furnace to woodchip boiler	no data available	oil to woodchip boiling system would save $125,000 annually at Tok School (reduction of 65,000 gallons of fuel used prev. yr)
Anchorage Schools	Energy Conservation pilot program - awareness of energy conservation, 10% goal for energy savings, operational audits, periodic meetings (more information provided in Attachment D)	want to expand project	no data available	Energy Conservation pilot program saved 11.2% electricity and 6.5% natural gas; cost savings to district of $114,361, projected savings of $1,500,000 annually if all schools involved
Chugach Schools	(awaiting funding for cost benefit analyses for school district; no information currently available)			
Cordova City Schools	students conducting "energy audit" of school; use of timers, motion sensors; removal of lights from vending machings; taking unused water heaters off-line, "powering down" electronics; removal of all door stops; installation of wind generator and battery bank (science classroom now generates own power); waste oil boiler attached to heating system; additional insulation; better siding	need for electronic controls for heating system (buildings heated when not in use); more effort towards motion sensors/timers for lights	high price for fuel	no data available
Delta-Greely Schools	recently approved for Alaska Energy Authority renewable energy grant to put wood chip boiler in a school	most buildings over 50 years old; have no boilers, no glycol, windows are single paned; need for added insulation, new windows, better doors (doors don't close currently)	subarctic climate; recent winter temperatures have ranged from -42 to -65; 100mph winds	no data available

Table 1: Energy Efficiency Projects in Alaska Public School Districts, cont.

District Name	Current Projects for Energy Efficiency	Potential Projects Needed	Special Regional Considerations	Results of Cost Benefit Analyses
Galena City Schools	building heated from waste heat provided by City of Galena Diesel Power Plants; school district holding a state-wide rural energy conference for greater awareness of efficienct energy consumption; use of Preventative Maintenance program to track energy use in all buildings	need for more efficient lighting, heat system up-grades, meter installations in Air Base Buildingings; need for new energy efficient equipment in food services sites; window replacements	no data available	building audits done at all 17 sites; heating from waste heat of Galena Diesel Power Plants - saving approximately $300,000/year in heating fuel
Haines Borough Schools	new school has heating system "talk back" feature that allows monitoring of sytem via computer; can control heating plant and automatically set heating levels for different dates and times of day; system and oil fired boilers chosen for energy efficiency; reduced number of lights on after hours, have photovoltaic automatic switches that turn off lights if there is no activity	no data available	no data available	currently conducting energy audit of public buildings
Hydaburg City Schools	school recently relamped with energy efficient lamps	need to replace windows and exterior doors with more energy-efficient ones	area heavily timbered, mill 30 miles away produces wood chips; looking into wood-fired boiler system	no data available
Juneau Borough Schools	currently in second year of an energy program that addresses plant/physical equipment and people aspect of reducing and/or conserving energy	money for retrofits (specifically for lights, windows, window shades, furnaces); working to have schools certified as Energy Star schools	no data available	during first year of energy program, reduced energy useage by 1 million kWh

Energy Efficiency Projects in Alaska Public School Districts, cont.

District Name	Current Projects for Energy Efficiency	Potential Projects Needed	Special Regional Considerations	Results of Cost Benefit Analyses
Kenai Peninsula Borough Schools	energy conservation award program; replacing windows	most schools 40-50 years old, need retrofits; need new windows, heating systems, improved thermostat systems	high increases of fuel prices (within FY 2008, electricity increased by 18%, natural gas 10-12%, fuel oil by 37%, and propane by 40%)	purchased Schooldude.com (compares energy useage of all schools in district)
Kuspuk Schools	efforts to conserve energy by turning off lights, isolating areas of buildings not used as frequently; weather strippings and adding insulation	buildings at least 30 years old; need access to products at a reduced cost and more readily available in remote location (such as insulation, building supplies, storm windows)	severe winter conditions; remote location	no data available
Lower Kuskokwim Schools	2000-01 replaced classroom lighting and 7 gymnasiums to T5 lights with electronic ballasts; currently replacing doors and windows, increasing insulation on new projects; upgrades to heating systems incorporate temperature setback options at times building not in use	continuing upgrades to heating systems (upgrading generators and incorporating heat recovery in existing school generators)	no data available	cost benefit analysis part of design process for new projects; has been done for Chefornak, Kipnuk, Kwig Reno projects
Pelican City Schools	turn heat down or off when building not in use	have submitted CIP application	currently water and septic system frozen in high school	no data available
Saint Mary's Schools	turn off lights, set temperature accordingly	need upgrades on insulation, windows, lights	no data available	did cost benefit analysis for installing new lights; determined lights would pay for themselves in 1 1/2 years

Table 1: Energy Efficiency Projects in Alaska Public School Districts, cont.				
District Name	**Current Projects for Energy Efficiency**	**Potential Projects Needed**	**Special Regional Considerations**	**Results of Cost Benefit Analyses**
Sitka Borough Schools	replaced roofs; added insulation; converted fuel boilers to electricity because fo low electrical rates	have board member working on plan to establish energy efficiency plan similar to Juneau Schools	no data available	no data available
Wrangell City Schools	have installed digital controls in buildings; thermopane windows	need money to convert boilers to electricity	hydropower available (need money to convert)	study on savings from gas/oil to electricity and hydropower; could save several thousand dollars on heating fuel

NOTES: Information provided by superintendents and energy managers of 16 school districts that responded to email survey.
(1) We include "Anchorage School District 2007 Energy Conservation Pilot Program: Final Report" (May 12, 2008) as Attachment D.
SOURCES: Todd Poage, superintendent, Alaska Gateway Schools; Robin Siegfried, executive assistant to superintendent, Anchorage Schools ; Bob Crumley, superintendent, Chugach schools; Jim Nygaard, superintendent, Cordova City schools; PJ Ford Slack, superintendent, Delta-Greely Schools ; Jim Smith, superintendent, Galena City Schools; Michael Byer, superintendent, Haines Borough Schools; Al Weinberg, superintendent, Hydaburg City Schools ; Joyce Kitka, energy manager, Juneau Borough Schools , Paul Brenner, energy conservation manager, Kenai Peninsula Borough Schools; Brad Allen, superintendent, Kuspuk School District; Gary Baldwin, superintendent, Lower Kuskokwim Schools; Connie Newman, superintendent, Pelican City Schools ; David Herbert, superintendent, Saint Mary's Schools; Steve bradshaw, superintendent, Sitka Borough Schools; Woody Wilson, superintendent, Wrangell City Schools.

International Codes-Adoption by State

Y = Effective Statewide A = Adopted but may not yet be effective L = Adopted by Local Governments
S = Supplement 06 = 2006 Edition 04 = 2004 Edition 03 = 2003 Edition 00 = 2000 Edition

* The title of the 2006 and 2003 IUWIC Code was changed to IWUIC in the 2006 version

AL	Alabama	X06	L	X06	X06,L	X06,L	L	X06 L	L	L	L	L		L	IBC, IFC, IMC IPC IFGC - AL Building Commission: state owned, schools, hotels, movie theaters
AK	Alaska	X03	L06	X03	X03	L		X03							
AZ	Arizona	X00	L	X03	L	L		L	X00	X00	L	L	L	L	AZ Dept of Health Services, health care institutions
AR	Arkansas	X06	X06	X06	X06	X06	L	X06	X03	L	L				
CA	California	X06		X06											CA currently adopts the 2006 IBC & IFC as the base model codes for the CA 2007 Building Standards Code CA also adopts a portion of the IEBC, Apx A, Chapter 1 which is published in Volume II of the 2007 CA Building Code
CO	Colorado	X06	L	X06	X06	X06	L	X06	X06	L	L	L	L	L	All State Buildings & Facilities IBC, IMC, IPC, IFGC, IECC All Public Schools & Junior Colleges: IBC, IFC, IMC, IPC, IFGC
CT	Connecticut	X03	X03	X03	X03	X03			X03	L	X03				IFC: Portions used in the CT State Fire Code; ICC/ANSI A117.1
DE	Delaware	L	L	L	L	X03		L	L	L	L				
DC	District of Columbia	X00	X00	X00	X00	X00		X00	X00	X00					
FL	Florida	X03	X03		X03	X03		X03	X06	L03	X03				2006 codes scheduled to go into effect 3/1/2009
GA	Georgia	X06	X06	X06	X06	X06		X06	X06	L	L				
HI	Hawaii	X06	X03												
ID	Idaho	X03	X06	X03	X03			X03	X03		L				
IL	Illinois	X06	L	X06	X06	L	L	X06	X06	X06	X06	L	L	L	2000 IECC, modified by the 2001 Supplement for commercial structures statewide. IBC, IFC, IMC, IFGC, IPMC, IECC, IEBC for IL Board of Edu Facilities (other than vehicular), but do not apply to Chicago. IBC adopted by Dept of Health for hospitals where local codes do not apply.
IN	Indiana	X06	X03	X06	X06			X06							
IA	Iowa	X06	X06	X06	X06	L	L	L	X06	L	X06			L	IBC, IRC, IMC, IEBC, IECC State owned and rented structures
KS	Kansas	X03	X03	X03	L03	L03	L	L03	X06	L	L				Applies to state owned facilities
KY	Kentucky	X06	X06	L	X06			X06	X06	L					IECC bldgs other than 1&2 family regulated by the KRC
LA	Louisiana	X06	X06	L	X06			X06	X06, L	L	X06				The IECC is adopted by the State Fire Marshal's Office for low-rise residential buildings. It is also adoptable on a local level
ME	Maine	X03 L	X03	L	L	L	L	L	X03	L	X03			L	
MD	Maryland	X06	X06		X06	X06,L	L	L	X06	L06	X06				IPC Industrialized housing Other codes, edition shown may not be in use locally; check with local jurisdiction
MA	Massachusetts	A03	X03		A03										
MI	Michigan	X03	X03	L	X03	X03	L	X03		L	X03	L			
MN	Minnesota	X06	X06	X06	X00			X06		L					
MS	Mississippi	X03	X03	L	L	L	L	L	L	L	L	L			The MSBCC adopted the 2003 IBC & IRC in 2006 Legislation was passed in 2007 stating that jurisdictions adopting new codes must adopt the codes of the MSBCC and that jurisdictions already enforcing other codes must adopt the codes of the MSBCC by 07/01/2010
MO	Missouri	X00	X00	L	X00	X00, X03	L	X00	L	L	L	L	L	L	State Office Space - 03 IPC, Modular Construction - 00 IBC, IRC, IMC, IPC, IFGC
MT	Montana	X06	X06	L	X06			X06	X03		X06				
NE	Nebraska	X00	X00	L	L	L	L	L	X03	L	L		L	L	
NV	Nevada	X06	X06	X03	L	L	L	L	X06	L	X06	L			IBC, IFC SFM, schools health care, state bldgs, commercial bldgs for counties over 100k IBC, IRC, IFC, IECC, IEBC NV Public Works Board, state buildings
NH	New Hampshire	X06	X06	L	X06	X06		L	X06	L					
NJ	New Jersey	X06	X06	X06	X06			X06	X06	L					The IFC will go into effect 02/01/2009
NM	New Mexico	X06	X06	X03		L			X06		X06				06 IBC, IRC, IECC & IEBC adopted statewide by NM Const Ind Div 03 IFC adopted statewide by the State Fire Marshal's Office
NY	New York	X03	X03	X03	X03	X03		X03	X03	X03	X03				

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NC	North Carolina	X03	X00	X03	X03	X03		X03	X03						
ND	North Dakota	X	X	L	X	L		X		L	L				
OH	Ohio	X06	X03	X06	X06	X06		X06	X06	L				L	Residential Code of Ohio is the 2003 IRC with amendments
OK	Oklahoma	X06	X06	X06	X06	X06	L	X06	X03	X06	X06	X06	L	L	IRC - Mechanical, Plumbing and Fuel Gas provisions only
OR	Oregon	X06	X06	X06	X06			X06							
PA	Pennsylvania	X06	X06	X06	X06	X06		X06	X06	L	X06	X06	X06		
RI	Rhode Island	X06	X06		X06	X06		X06	X06	L06					
SC	South Carolina	X06	X03	X06	X06	X06		X06	X06	L06	L06	L06			
SD	South Dakota	X00	L	X00	X00		L	L	L	L	L	L	L		IBC, IFC Approved for local adoption, IMC for state school construction
TN	Tennessee	X06	L	X06	L	L		L	L	L	L	L		L	IFC adoption effective12/16/2008
TX	Texas	X03	X00	L	L	L	L	L	X00	L	L	L	L	L	Jurisdictions authorized by state law to adopt later editions of IBC, IRC, IPC, IMC, IFGC, and IECC. See Jurisdiction Chart for specific edition adopted
UT	Utah	X06	X06	X03	X06	X06		X06	X06						
VT	Vermont	X03	L03			X03			X04						
VA	Virginia	X06	X06	X06	X06	X06		X06	X06	X06	X06				
WA	Washington	X06	X06	X06	X06			X06		L	L	L	L		
WV	West Virginia	X03	X03		X03	X03		X03	X03	L00	X03				
WI	Wisconsin	X06		L	X06			X06	X06		X06				
WY	Wyoming	X	L	X	X	L	L	X	L	L	L	L			
PR	Puerto Rico				X	X		X							
VI	U.S. Virgin Islands	X03	X03		X03				X03						