

SmartRegs

Proposed updates to Boulder’s Housing Code and Rental License Code, including new energy efficiency requirements for existing rental housing

Prepared for:

Community Working Group Meeting on April 5, 2010
Landmarks Advisory Board Meeting on April 7, 2010
Environmental Advisory Board Meeting on April 7, 2010

This packet contains the draft Planning Board memo that outlines staff recommendations for the SmartRegs project, including:

- Housing Code:** Adoption of the 2009 International Property Maintenance Code, with amendments to incorporate features of Boulder’s existing housing code (pages 7-9)
- Rental License Code:** Adoption of administrative revisions as outlined in the staff recommendation (pages 9-10)
- Revision of the Rental License Fee to \$70 for new and renewal applications (pages 10-12)
- Adoption of a \$250 investigative fee for non-complying properties (pages 10-12)
- Energy Efficiency:** Adoption of an energy efficiency requirement for existing residential rental properties that would be implemented through a program featuring:
- *Two Compliance Pathways*—a “prescriptive path” and a “performance path” (pages 13-20)
 - *An 8 Year Phase-In* that would require all rental properties to achieve compliance by the end of two four-year rental license cycles (pages 20-23)
 - *Innovation Points* to allow for compliance paths not anticipated under this specific proposal (pages 19-20)
 - *A Hardship Provision* to allow a longer time period for compliance (page 24)
 - *Special Consideration for Historic Buildings* (page 25)
 - *Special Consideration for Affordable Housing Units* that do not qualify for subsidized weatherization services (pages 25-28)
- The memo also outlines several implementation strategies to assist property owners in achieving compliance and recognize properties that have achieved improved energy efficiency (pages 28-30).

DRAFT MEMORANDUM

To: Planning Board

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Date: WORKING DRAFT; April 2, 2010

Subj: SmartRegs: Public hearing, discussion and recommendation to City Council on the proposed updates to the housing code and rental license code including new energy efficiency requirements for existing rental housing.

EXECUTIVE SUMMARY:

The Public Works and Community Planning & Sustainability departments periodically perform an evaluation of construction codes and related programs to ensure health and safety standards are updated, and provisions of the code are administered effectively. Updates are performed in a comprehensive manner to incorporate other appropriate city goals and objectives. The departments have examined code changes needed to update the technical provisions of the Housing Code and reviewed the Rental License Code provisions to further streamline and clarify its administration, including evaluation of the program's cost recovery and fees. Code requirements that would further community sustainability objectives, especially energy efficiency, have also been examined.

As background, the City of Boulder adopted a Climate Action Plan (CAP) to reduce greenhouse gas (GHG) emissions by 23 percent (to 7 percent below 1990 levels) by 2012. This local goal is part of a global effort in response to increasingly serious forecasts regarding the long-term effects of increased greenhouse gases in our atmosphere. The implementation of the CAP involves activities across several city departments and operations and includes various strategies to reduce GHG emissions. The purpose of this memo is to outline recommended changes to Boulder's Housing Code and Rental License Code and to incorporate energy efficiency requirements as part of the code updates to address CAP objectives. These objectives speak directly to issues of long-term public health and safety, consistent with the stated purpose of the housing code.

At a Nov. 18, 2008 City Council Study Session on the CAP, council identified strategies needed to reduce GHG emissions to meet CAP objectives. One of the primary strategies

for reaching this goal is to reduce energy use in buildings. Since 2007, several energy efficiency measures were implemented for residential and commercial buildings in new construction, remodels and additions that exceeded 2006 International Energy Conservation Code (IECC) minimum standards.

Addressing energy efficiency in existing rental housing and existing commercial buildings has been the focus of the 2009/2010 work plan. Proposed changes to the Housing Code and Rental License Code, including options for energy efficiency requirements, have been developed as part of the broader effort to improve energy efficiency across all building types in the city. The energy efficiency proposal for existing rental housing has been scheduled for consideration first to coincide with the updates to the Housing Code and Rental License Code.

Staff proposes the following code amendments to update the general provisions of the Housing Code and Rental License Code, as well as add an energy efficiency requirement to the rental licensing program:

Housing Code

- Repeal Title 10, Chapter 2, Housing Code, B.R.C 1981 and adopt the 2009 International Property Maintenance Code as amended effective January 3, 2011. **(Attachment A)**

Rental License Code

- Adopt administrative revisions to Title 10, Chapter 3, Rental Licenses, B.R.C. 1981, effective January 3, 2011. **(Attachment B)**
- Revise Title 4, Chapter 20, Rental License Fees, B.R.C. 1981 to \$70 for new and renewal applications and adopt a \$250 investigative fee effective January 3, 2011. **(Attachment C)**

Energy Efficiency Requirement

- Adopt Appendix C **(Attachment D)** to Title 10, Chapter 2, International Property Maintenance Code, Existing Residential Structures Energy Conservation, B.R.C 1981, effective January 3, 2011 and including a:
 - Phase In Option: Section C101.2.1
 - Hardship Provision: Section C101.2.4
 - Affordable Housing Provision: Section C101.2.6
- Revise Title 4, Chapter 4, Building Contractor License, B.R.C. 1981, to include provisions for a Class G license to entitle the licensee to inspect prescriptive energy efficiency measures effective January 3, 2011. **(Attachment E)**
- Revise Title 10, Chapter 3, Terms of Rental License, B.R.C. 1981 to limit the number of applicants with license renewal dates in 2011 from renewing earlier than January 3, 2011. **(Attachment E)**

The proposed changes will be reviewed by the Landmarks Board, Environmental Advisory Board and Planning Board before being scheduled for City Council consideration on May 4 (first reading) and May 18 (public hearing and second reading). The proposed implementation date is January 3, 2011. The development of a Commercial Energy Conservation Ordinance (CECO) is also being analyzed and will be scheduled for council consideration during the fourth quarter of 2010.

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS:

Economic: The adoption and consistent application of building codes and standards support all segments of the community and a sustainable economy. Proposed code changes are evaluated to demonstrate how the economic impact and investment is offset by increasing energy efficiency and corresponding reductions in ongoing operational costs.

Environmental: The long-term impact of GHG emissions is a public health and safety issue. Federal case law defines GHG emissions as a public health hazard. A 2007 Supreme Court ruling authorizes the Environmental Protection Agency to regulate greenhouse gases as a significant threat to human health. Building codes play an important role in reducing energy use and carbon emissions in the city’s new and existing building stock. In the city’s experience to-date in implementing climate action programs, the reduction of energy use in rental housing and commercial spaces will not be achieved sufficiently through voluntary measures.

Social: Building codes help control the potential impacts of the built environment on life and property. Safe buildings, a healthy environment and the reduction of climate change impacts have significant social benefits. Additionally, property owners and tenants benefit from lower, more predictable utility bills as energy prices are expected to increase over time.

FISCAL IMPACT:

Periodic code updates and maintenance are part of the normal work plan involving the use of staff resources. Costs of the implementation of these code changes, including training for customers and staff, are included within the city’s operating budget. A proposed change to the rental license application and renewal fee (every four years) from the current \$46 to \$70 per building would bring the fee into alignment with the Council-approved 60% cost recovery policy. Additionally, a pilot program is proposed which would create a fixed-term 0.50 FTE (100% cost recovered) to specifically address a backlog of rental housing properties not currently licensed.

BACKGROUND:

The City of Boulder periodically updates its construction codes. This effort is done in a coordinated and integrated manner to maintain a practical balance between safety and costs related to the protection of life and property while advancing green building objectives pertaining to sustainable development. Since 2007, several energy efficiency measures were implemented for residential and commercial buildings in new construction, remodels and additions that exceeded 2006 International Energy Conservation Code (IECC) minimum standards. Commercial construction must

document energy efficiency 30 percent better than the 2006 IECC. Residential construction must be 30 to 75 percent more efficient than the 2006 IECC based on the size of the structure, with larger houses having the higher efficiency requirements. Column 2 of the [Green Building Matrix](#) outlines residential and commercial efficiency programs that were implemented during 2007, 2008 and the first quarter of 2009.

Since early 2009, staff has been working on residential and commercial energy efficiency programs for existing rental housing and existing commercial buildings where no permit activity (already requiring energy efficiency measures) is occurring. The program for existing rental housing is scheduled for consideration first to coincide with the updates to the Housing Code and Rental License Code. Additionally, an infrastructure to administer energy efficiency requirements in rental housing is already available through the city's rental licensing program.

The promotion of improved energy efficiency is already within the stated purpose of the Housing Code: "to protect, preserve, and promote the physical and mental health of the residents of the city, to control communicable diseases by regulating privately and publicly owned dwellings, promote conservation and efficient use of energy in dwellings, protect safety, and promote the general welfare" as well as to establish "minimum standards for basic equipment and facilities for light, ventilation, and heating; for safety from fire; for use and amount of space for human occupancy; and for safe and sanitary maintenance of dwellings."

The Housing Code was initially adopted in June 1968 and established "rules and regulations concerning minimum standards governing basic equipment and facilities, physical condition, maintenance and occupancy of dwellings." The initial code was created to address sub-standard housing units but did not create a rental housing inspection and licensing program. The Rental License Code was adopted in 1973 to establish the systematic inspection of all rental property. The current code establishes minimum standards for the safe and sanitary maintenance of dwellings offered to the public for rent. All rental properties in Boulder are required to maintain a rental license in compliance with the Housing Code.

During the year 2000, a major change to the rental license program was implemented involving the outsourcing of inspections to private professional inspectors. As a result of concerns in regard to this program change, a rental housing task force was convened in November of that year and, in early 2002, specific changes were implemented as a result of the recommendations developed.

The private inspection program was updated to include Baseline and Safety Inspection Checklists intended to verify code compliance for rental license applications (new and renewal). The Baseline and Safety Inspection Checklists are both required to obtain a new rental license and the Safety Inspection Checklist is required to renew a rental license every four years. The requirements for the program were adopted into the Housing Code and the Rental License Code.

Feedback from owners, tenants and inspectors suggested the need to update the current checklists and process to enhance program effectiveness. In 2009, the Public Works and Community Planning & Sustainability departments began the process of evaluating and updating the Housing Code and Rental License Code, including energy efficiency options.

Health and safety continues to be a paramount standard for any building code adopted by the City of Boulder. Federal case law defines greenhouse gas emissions as a public health hazard. A 2007 Supreme Court ruling authorized the Environmental Protection Agency to regulate greenhouse gases as a significant threat to human health. Building codes play an important role in reducing energy use and carbon emissions in the city's new and existing building stock.

On July 22, 2009, staff began holding meetings with a Community Working Group that included representatives from the Boulder Area Rental Housing Association, University of Colorado Off Campus Student Services, Boulder Housing Partners, apartment owners and licensed rental housing inspectors. The scope of work addressed by the working group included:

- Consideration, as an alternative to amending the existing housing code, of the potential adoption of the International Existing Building Code (IEBC) and/or the International Property Maintenance Code (IPMC),
- Review of proposed revisions to the rental licensing provision of the code to further streamline and clarify its administration,
- Consideration of energy efficiency requirements, measures and options that could be added to the housing code and/or national standards to address the city's adopted Climate Action Plan objectives.

The Community Working Group, including its subcommittees, has reviewed a significant amount of information and provided feedback on all proposals to date. The intention of the group was not to reach consensus on all issues but to be an integral part of the public feedback process and assist in providing comment and direction on the staff proposals.

PUBLIC FEEDBACK:

In addition to the feedback provided by the Community Working Group, public outreach began last year when an informational postcard and invitation to community open houses was mailed to approximately 16,000 renters and property owners with existing rental licenses. Approximately 267 people attended the two community open houses held in mid-November 2009. At these open houses, staff collected stakeholder e-mail addresses to populate a "SmartRegs E-News" e-mail group. Initial feedback was collected at the open houses and through the SmartRegs Web site; staff analyzed and compiled this input into a [preliminary feedback report](#).

To discuss how to resolve the potential conflict between the city's affordable housing goal and the Climate Action Plan goal to upgrade existing housing's energy efficiency, staff convened a focus group of affordable housing providers, which met twice. The main outcome of these focus groups involved the pursuit of federal weatherization funds for the majority of this housing stock.

Public outreach has also included using the social networking Web site *Facebook*, an online survey service called *Survey Monkey*, the University of Colorado's E-memo and Buff Bulletin e-mail service, the city web site, Municipal Channel 8 and stakeholder targeted e-mail campaigns. These strategies were used, in part, to convene community stakeholders "virtually." A SmartRegs Web page was created to act as an information hub as well as a venue for public feedback. This Web site has provided background information as well as links to various feedback opportunities throughout the project, including the *Survey Monkey* surveys (during specified feedback periods), an online comment form and a staff e-mail address for project-related comments.

Two *Survey Monkey* surveys were created to poll all stakeholders on components of the SmartRegs project. A survey on the Housing and Rental Licensing Code Changes was released from March 8 – 19, 2010 ([see survey results](#)) and a survey on the project's Energy Efficiency proposals will be released from April 5 – 16, 2010. The surveys asked/will ask community members for their opinions on items such as the updated Rental Licensing Checklist as well as their thoughts on specific details of the energy efficiency proposals. The energy efficiency survey results will be available after April 16 at www.bouldercolorado.gov/smartregs, under the "Project Documents" link.

In conjunction with the city's use of the social networking Web site *Facebook*, a SmartRegs tab was added to the city's main page. The SmartRegs tab contained background information, links back to the city Web site as well as direct links to all feedback channels. According to a demographic tool provided by *Facebook*, of the city's 601 fans more than 50 percent of city fans are between the ages of 25-44. Nineteen percent of fans are between the ages of 18-24. By using *Facebook*, the hope was to support the younger demographic to become more involved in city public processes, while still delivering information to older stakeholder groups.

The city also piloted the use of Municipal Channel 8 to produce an information video (viewable at <http://bit.ly/cIXdpz>) that was shown at the open houses and which also received approximately 100 views on the city's YouTube channel. Staff also secured SmartRegs coverage on the Channel 8 news program *Inside Boulder News*.

The city worked closely with the University of Colorado (CU) to elicit student feedback. Off-Campus Student Services (OCSS) sponsored a student e-mail campaign using the CU E-memo and Buff Bulletin e-mail service. This e-mail service sends short memos to targeted student groups through the university e-mail system. These students will receive another E-memo message in April to provide basic SmartRegs information, links to the city Web site, and an invitation to take the surveys.

Additionally, a targeted e-mail campaign including links to all feedback opportunities was sent to the "SmartRegs E-News" e-mail list. This e-mail list contained 326 community member e-mails.

PROPOSED CODE REVISIONS:

Housing Code

To update the Housing Code, staff analyzed and considered three options with the Community Working Group. An analysis of the options and the staff recommendation are as follows:

Adopt the 2009 International Existing Building Code (IEBC)

After review of the IEBC, staff determined the purpose of the 2009 IEBC is to aid in the design of major remodeling and renovation of large multiple-residence or commercial building projects. As such, staff and the Community Working Group determined that the 2009 IEBC should not be considered as an alternative to the existing Housing Code.

Retain and Amend the Existing Housing Code

The existing Housing Code is a locally developed code that has served the Boulder community since 1968. Its provisions regulate public and private dwellings to protect the health, safety and general welfare of Boulder residents. The housing code is integrated into the rental license program and is familiar to staff and customers of the program. Initially, retaining and updating the existing code was a preferred option for many Community Working Group members. However, once the group discussed the issues related to updating the existing housing code, the benefits of replacing it with an amended International Property Maintenance Code became evident. The more pertinent discussion points of the working group and staff are summarized below:

Considerations for Retaining the Existing Housing Code

- Locally developed to specifically address the concerns of the community.
- The tone of the document is perceived as being more “user friendly” since less technical code language is used than in the International Code Council (ICC) documents.

Considerations Against Retaining the Existing Housing Code

- The existing Housing Code is not easily coordinated with the other adopted building codes published by the ICC.
- The Housing Code has not been updated as often as the ICC documents which has led to a situation where the Housing Code is different and in many cases more restrictive than the contemporary ICC codes.
- Maintaining and updating a locally developed code takes more staff time than adopting a code published by the ICC. This investment made sense when the code was developed and no similar document was available. However, now that the IPMC is available the city can save the costs of maintaining a locally developed code by adopting the IPMC.
- Inspector certification testing has recently changed so that the testing references ICC documents. With current testing procedures, inspectors are certified for code knowledge which varies substantially from the requirements of the locally developed Housing Code.

Adopt an Amended International Property Maintenance Code

The 2009 IPMC was created by the ICC and is a national code standard. The purpose of the 2009 IPMC is “to apply to all existing residential and non-residential structures and all existing premises and constitute minimum requirements and standards for premises, structures, equipment and facilities for light, ventilation, space, heating, sanitation, protection from the elements, life safety, safety from fire and other hazards, and for safe and sanitary maintenance.” The code also specifies the responsibility of owners, operators and occupants related to code compliance. The IPMC includes regulations similar to the existing Housing Code while incorporating more relevant code language that is consistent with the rest of the City’s currently adopted building codes. The more pertinent discussion points of the working group and staff are summarized below:

Considerations for Adopting an Amended IPMC to Replace the Housing Code

- While the technical language is not perceived as “user friendly” as the Housing Code, the IPMC language is developed to facilitate more effective enforcement of the code provisions.
- Provisions are consistent with the requirements referenced in inspector and contractor certification testing.
- The IPMC contains provisions for addressing unsafe structures and equipment that have not been in a code since the 1997 Uniform Code for Abatement of Dangerous Buildings (UCADB). Since the IPMC must be adopted to replace the 1997 UCADB it makes sense to locally amend the document to take the place of the Housing Code since the scopes of the two documents are so similar.

Considerations Against Adopting the IPMC

- A new document will be perceived as unfamiliar to those used to the existing Housing Code.
- According to working group input the technical code language of the IPMC is not as user friendly as that of the locally developed Housing Code.

As stated above, the IPMC is very similar to the Housing Code. However, it is important to modify the IPMC with sections from the Housing Code that have been locally vetted. The list below provides an overview of some of the main modifications to the IPMC:

- **Chapter 1, Scope:** The scope has been limited from a commercial and residential code to only a residential code and includes energy conservation, consistent with the current Housing Code. Several administrative sections have been modified to correlate with the Boulder Revised Code in areas such as city liability, code official duties, rule making authority, penalties, clerk and recorder notices and means of serving notices.
- **Chapter 2, Definitions:** Similar to other adopted codes, the “City Manager” has been defined as the code or building official. Definitions for “contributing building” and “local landmark” were added as well as a requirement that energy efficiency upgrades should maintain the historic character of a building per the historic preservation ordinance.

- **Chapter 3, General Requirements:** Several sections were added or modified that would enforce safety requirements for stairs, handrails, guardrails, decks, porches and balconies in existing buildings. Maintenance requirements for gutters, downspouts and cosmetic finishes were removed. The recent State requirement to install carbon monoxide detectors is also included.
- **Chapter 7, Fire Safety:** A provision was added requiring that portable fire extinguishers be installed per the adopted International Fire Code, Section 906. This requirement would apply to hotel/motels, apartment and condominium buildings with three units or more, and congregate care facilities. It should be noted that some members of the Community Working Group voiced strong opposition to this requirement. Those members commented that the emphasis should remain on calling emergency services and getting out of the building rather than losing time trying to use a fire extinguisher. Other comments in opposition were expressed about the cost as well as experience with tenants' inappropriate use of the fire extinguisher. The city's Fire Chief and Chief Fire Marshal continue to support the code requirement.
- **Appendix "B", Rental Housing Inspection and Licensing:** This appendix has been added to provide continuity between the IPMC and Title 10-3, Rental Licenses.

Staff Recommendation:

The staff and Community Working Group determined the best approach is to repeal the Housing Code and adopt the IPMC as amended to incorporate sections of the Housing Code that specifically relate to the Boulder community. The recommendation retains the best of both documents while gaining the improvements associated with a nationally standardized document that is legally consistent with other city codes adopted by reference from the ICC.

Staff Recommendation:

Staff recommends the repeal of Title 10, Chapter 2 Housing Code, B.R.C 1981 and the adoption of the 2009 International Property Maintenance Code as amended effective January 3, 2011. (Attachment A)

Rental License Code

The Rental License Code provides for comprehensive enforcement of Chapter 10-2, "Housing Codes," B.R.C 1981, by establishing a system of rental licenses for all dwelling and rooming accommodations in the city that are rented to tenants. The Rental License Code also provides requirements designed to enhance the health and safety of those who inhabit residential rental structures. As part of the periodic assessment of technical codes, the City of Boulder also evaluates the rental license program to ensure the administrative provisions, business process, and cost recovery policies remain effective.

There are approximately 6,393 rental licenses in the City of Boulder representing 19,606 rental dwelling units. The licenses are renewed every four years. Also, there are 359 properties with open compliance cases for either renting without a license or because they have not responded to the city's recent renewal notices. Another approximately 1,500 properties in the database require further research and investigation to determine their status. Additionally, it is perceived that there are other advertised rental properties that have not applied for a rental license.

Staff experience in administering the code provisions, in combination with Community Working Group feedback, suggests the following revisions to the code to clarify its administration and address the backlog in properties that may not be in compliance. Proposed changes to Title 10, Chapter 3, Rental Licenses Code, B.R.C. 1981, include the following:

- **Timeframes:** Several timeframes are proposed to be revised in the code to coincide with customer and business process needs. These include: A 90 day grace period for rental license renewals; extending the renewal period for Accessory Dwelling Unit (ADU) licenses from one year to four years; allowing the Baseline and Safety Inspections to be performed up to one year in advance of an application; and extending the timeframe for the city inspection of newly constructed rental properties to remain valid up to 12 months.
- **Clarifications:** Other proposed changes include: Requiring a Safety and Baseline Inspection when a license expires; requiring application materials to be submitted by the applicant rather than the housing inspector; requiring the property owner to make the inspection report available upon request by the city and tenant; and no longer requiring the posting of the rental license but making it available upon request.

The proposed changes to the Rental License Code were discussed with the Community Working Group and general consensus was noted.

Staff Recommendation:

Staff recommends adopting the revisions to Title 10, Chapter 3, Rental Licenses, B.R.C. 1981, effective January 3, 2011. (Attachment B)

Rental License Fee Options

In 2003, the full cost of the rental licensing program was identified and changes to the Rental License Fee were considered to achieve the City Council approved policy of 60% cost recovery. The license fee was revised from \$15 to \$45 per building for new and renewal (every four years) applications. Below is information about the current program costs for 2010 as well as options for changes and on-going program funding.

Current Program Cost and Fee

For 2010, the full cost of the program is \$157,181. Please see Attachment F for the cost detail. Based on current costs and the number of current rental licenses in the system, the fee should be increased from \$46 (revised from \$45 in 2008 as an adjustment) to \$60 to meet the 60% cost recovery policy. Other funding options are outlined in Attachment G and include:

Option 1, Part A

Allocate .20 FTE from the General Fund to the Rental License Program for the enforcement of the housing code. In 2004, the housing code compliance inspector was eliminated and the remaining work and cost wasn't reallocated. Additionally, a .05 (5%) FTE for enforcement administration support should be allocated to the rental license program. These changes reduce the cost to the General Fund and increase the cost to the Rental License Program by approximately \$28,540. To achieve 60% cost recovery, the fee would increase to \$70.

Option 1, Part B

This option includes Option 1, Part A and adds a 100% cost-recovered pilot program to address a gap in compliance. Evaluation of the program suggests that there is a need to have a dedicated .50 FTE responsible for following up on rental properties that do not comply with the program. Currently, there are at least 1,860 properties that may not be in compliance or which require further research and investigation to determine their status. To address this situation, a pilot compliance program is proposed. The proposal includes using a .50 FTE from a currently vacant position in the building inspection area and dedicating the resource to investigating these properties and bring them into compliance as appropriate. The intention is to make this pilot position 100% cost recovered through a \$250 investigative fee that would be assessed to property owners that did not respond to renewal notices and were not in compliance or the property was identified as not being in compliance following a complaint. The pilot term would be for one year with a subsequent evaluation and recommendation on a longer-term solution (if necessary).

Option II

This option increases the current cost recovery from 60% to 75% with a fee increase to \$75 for new and renewal applications. A cost recovery policy is typically based on the level of benefit realized by those receiving the service. Currently, the level of benefit is noted as: 40% community (General Fund), 40% tenants and 20% owners (total equals 60%). The respective levels of benefit would need to be adjusted to support a 75% cost recovery policy.

Option III

Option III takes the cost in Option I, Part A and adds 60% of the General Fund enforcement costs. It has been determined that 60% of compliance cases (such as weeds and trash) are related to rental properties. This approach would increase the current fee of \$46 to \$190 for new and renewal applications.

Analysis

- Minimally, the fee should be increased from \$46 to \$60. However, it is prudent to pursue Option 1 A as it appropriately allocates the cost of the .20 FTE dedicated to enforcement of the housing code and the .05 FTE for enforcement administrative support to the rental license program. To achieve 60% cost recovery, the fee would increase from \$46 to \$70.
- Option 1 B includes Option 1 A and adds the 100% cost recovered pilot program that would further support the effectiveness of the program. The license fee would be adjusted to \$70 as proposed in Option 1A but it is anticipated that the proposed investigative fee of \$250 for non-compliant properties would recover the additional enforcement expense.
- Option II increases the cost recovery from 60% to 75% but the rationalization to change the policy is undetermined at this time.
- Option III recovers an increased cost of services that may be attributable to rental housing but does not seem equitable as those property owners that are in compliance would be penalized. Additionally, landlords have been experiencing an increase in costs in other areas such as required carbon monoxide detectors and water service backflow prevention. As such, it does not appear to be prudent or equitable to increase the cost of the fee to approximately \$200.

Staff Recommendation:

Staff recommends Option I, Part B and revising Title 4, Chapter 20, Rental License Fees, B.R.C. 1981, to \$70 for new and renewal applications and adopting a \$250 investigative fee effective January 3, 2011. (Attachment C)

Rental License Program Effectiveness

In addition to the proposed code changes and additional support to bring properties into compliance, staff considers improved education and outreach opportunities to be the next step in a phased program to ensure the effectiveness of the Rental License Program. A draft Rental License Handbook (Attachment H), described below, and an increased emphasis on training opportunities will help improve program effectiveness. A concerted effort to further educate the rental license community will include improved documentation, greater accessibility to information on the web, increased utilization of social networking tools, and training workshops for inspectors, owners and property agents. Once these initial steps are complete, staff will conduct a stakeholder survey, evaluate the feedback and determine appropriate next steps.

To improve program information, the Rental License Handbook is proposed as a companion to the IPMC and Rental License Code. The handbook would provide guidelines and other information to landlords, tenants and inspectors. Two documents—the Baseline and Safety Inspection Checklists—which are currently part of the rental

license application materials will be incorporated as part of the new handbook. The checklists are used to verify code compliance for both new and renewal license applications. The documents are currently based on the Housing Code and have been revised, incorporating public and Community Working Group feedback, to reflect the requirements of the IPMC. The scope of the lists has also been expanded to address additional health and safety items such as installation of carbon monoxide detectors and tenant access to circuit breakers.

Additionally, the Rental Lease Disclosure Form will be included in the handbook and updated to include information about the requirement for properties to have a rental license as well as information on how to file a rental housing complaint. This form represents an important opportunity to provide tenants with information on rental license requirements and the rental housing complaint system.

Staff continues to monitor and investigate properties not in compliance. As noted in the fee section above, utilizing a pilot 100% cost-recovered position for one year would significantly improve staff's ability to investigate and appropriately address the properties not in compliance. Staff also tracks the number of licensed properties and annual renewals and measures on-time performance for new and renewal applications. Lastly, should the program evolve to include energy efficiency requirements, staff will need to track and analyze appropriate measures to determine the effectiveness of that part of the program.

Energy Efficiency

At its Nov. 18, 2008 study session on the Climate Action Plan (CAP), council identified strategies needed to reduce greenhouse gas (GHG) emissions to meet CAP objectives. These strategies were further refined and confirmed in June 2009 when Council approved the *2009 Community Guide to the Boulder Climate Action Plan* which outlined key priorities for climate action in Boulder.

Addressing energy efficiency in existing rental housing has been one focus of city staff's 2009-10 work plans. Other staff work program items are addressing energy efficiency in owner-occupied housing and in commercial structures, in addition to efforts focused on renewable energy, transportation and social mobilization to encourage changes in energy-related behaviors.

The goals of the proposed energy efficiency code changes are to:

- Improve the energy efficiency in Boulder's rental housing stock;
- Move the community toward achieving its CAP goal;
- Provide a flexible approach that can accommodate different building improvement needs, owners that have previously made efficiency investments, and differing forms of lease agreements and ownership models;
- Recognize the financial circumstances of rental property owners and the specific limitations associated with rental property debt structures; and

- Preserve affordability by recommending cost-effective measures with proven energy savings so any rent increase (that may be passed on to recoup investments in efficiency) is balanced by utility cost savings.

Housing Type Data

The table on the following page lists the number of dwelling units with rental licenses in the city characterized by housing type. Although there are 19,606 rental units, there are only 6,393 rental licenses because multiple units in a solely owned building are covered under a single license. “Other” refers to classifications in the assessor’s database such as mobile homes, charitable organizations and residential offices.

Of the 45 percent of the city’s housing units covered under the rental licensing program:

- Three percent were built after 2001 and as such, were built to higher energy efficiency standards; and
- Eleven percent are affordable housing rental properties.

Housing Type	Total Dwelling Units	Total Licensed Rental Dwelling Units	Rental Licenses % of Dwelling Units
Single Family Attached	10,207	5,016	49%
Single Family Detached	19,750	3,736	19%
Multi-Family	9,526	8,998	94%
Other	3,919	1,856	47%
Total	43,402	19,606	45%

As described earlier in this memo, it is estimated that there are approximately 1,860 rental properties which are either out of compliance by renting without a rental license, or which require further research and investigation to determine their status.

Background on proposed requirements for energy efficiency improvements

The entire residential sector accounted for approximately 327,000 tons of carbon dioxide equivalent (CO2e) in 2008 based in large part on the sector’s electricity consumption. The residential rental sector’s contribution to achieving the city’s GHG emission reduction goal is approximately 45,000 tons CO2e reductions by 2012. Along with other criteria, the proposed code changes have been analyzed for their ability to meet this benchmark. Staff estimates that a portion of the rental sector’s contribution to the goal can be met through energy efficiency improvements while other reductions will be achieved through other strategies.

Staff is proposing code changes that result in energy efficiency improvements to attain a targeted efficiency performance level. Compliance with this target can be met by completing measures from a prescriptive list or by showing compliance through a performance test. A prescriptive list consists of a menu of options so property owners are able to choose measures that work with the age and type of construction of their particular building. The performance option uses the Residential Energy Services

Network (RESNET) Home Energy Rating System (HERS) to determine the level of energy efficiency.

These types of ordinances are commonly referred to as a Residential Energy Conservation Ordinance (RECO). There are a number of other communities with RECOs in place such as San Francisco, Berkeley and the state of Wisconsin. Most communities that employ a RECO as a tool to upgrade rental housing apply the ordinance at the time of sale or a major renovation and use a prescriptive list approach. Wisconsin allows for a performance option in addition to the prescriptive list. Berkeley is currently revising its RECO and exploring a performance approach as well. For background information on other communities, see [Residential Retrofit Study - Oct. 2008](#).

Staff retained consultants from Populus Sustainable Design Consulting and What's Working, Inc. to develop a series of case studies to make recommendations on the proposed compliance path and identify average costs to the property owner. The scope of work included the following:

- Select five to seven rental properties that represent a broad spectrum of Boulder housing types;
- Perform energy analyses to determine the baseline energy performance of the properties;
- Prioritize efficiency measures that would achieve the greatest energy and greenhouse gas emissions reductions for the lowest cost;
- Install the measures;
- Test the effectiveness of each measure installed;
- Make recommendations to align the prescriptive list with the proposed HERS target

The consultants recommend the City of Boulder's housing code changes include a requirement that 100 points be obtained from the prescriptive list contained in Attachment I. Alternatively, if a property owner chooses to take the performance path to show compliance, the required score should be equal to or less than 120 HERS. The recommendation includes a phasing-in of the requirements by capping the number of points required at any given rental renewal cycle. This recommendation matches staff's recommendation presented on page 20 of this memo.

The consultant's executive summary and a summary of policy recommendations can be found in Attachment J. The complete consultant's report can be found at [SmartRegs Case Study Final Report](#) by City Consultant Populus and What's Working.

It should be noted that one of the consultant's policy recommendations includes a provision where the city would require landlords to disclose average utility bills when offering a property for rent. Staff has not yet explored the feasibility of this recommendation with respect to confidentiality and logistical feasibility. The consultants also recommended the possibility of amending the prescriptive list to award points for square footage and number of bedrooms to account for the carbon impact of big homes versus small homes. Rental properties are generally smaller units compared to owner-occupied housing, which would eliminate the need for this approach.

Background on the Performance Path

The HERS score is based on a scale of 0-500. A lower score on the HERS scale reflects a more energy efficient building. The proposed HERS 120 score reflects a building that is 20 percent less efficient than a building built to the 2004 International Energy Conservation Code (IECC), a national energy code. Although this standard may seem relatively low, most of the buildings in Boulder that will be impacted by the proposed code changes were built before today's energy codes were in place. It would be prohibitively expensive to require retrofits in these older properties to meet today's national energy code standards (equal to a HERS 100). By way of comparison, new residential construction in Boulder currently requires a HERS level between 70 and 35 which is 30 to 75 percent more efficient than the national energy code, depending on the size of the home.

Background on the Prescriptive List

The consultants have developed a proposed prescriptive home energy scoring system for existing homes that would:

- Account for the baseline energy performance of the property and apply credit for existing energy efficiency in the property.
- Prioritize measures that achieve the greatest energy savings for the lowest cost, serving as a decision-making tool for property owners to identify the property-specific “low-hanging” fruit.
- Correlate with the proposed performance level requirement.
- Correlate with greenhouse gas emissions impact of the various improvements;
- Provide for cost-effective implementation.
- Account for variations in housing types by giving credit for features such as shared walls and multiple pathways to meet the required point level.
- Account for historically designated buildings and provide for alternative means to improve energy efficiency when necessary.

The National Green Building Standard (NGBS) was considered as another prescriptive path. However, the consultant's analysis found that the prescriptive list in the NGBS does not include a mechanism to account for the existing energy efficiency of the property; prioritize measures that achieve the greatest energy savings for the lowest cost; or account for differences in housing type.

The proposed prescriptive list functions as a “checklist audit,” that awards and weights points similarly to a performance-based home energy modeling approach. In addition, the prescriptive list is weighted by greenhouse gas emissions and accounts for the carbon-intensity of the energy source. This means that in areas like Colorado, where the electricity is particularly carbon-intensive, the scoring system accounts for the high carbon emissions resulting from electric heating and also rewards carbon-friendly fuel switching retrofits from electric heating to natural gas. The proposed prescriptive list is included in Attachment I.

Analysis:

Compliance Options

To comply with this proposed requirement, properties would have to achieve 100 points on the prescriptive list or a 120 HERS through the performance pathway. The performance of a property that has met the 100-point requirement on the proposed prescriptive list is approximately equal to the performance of a property achieving a HERS 120 score.

The consultants completed seven case studies to inform staff's proposal. The details of these case studies can be found at [SmartRegs Case Study Final Report by City Consultant Populus](#) and What's Working. The properties represent a broad range of Boulder housing types from single-family homes to multi-story apartment buildings. The ages of the properties range from 1909 to 1972. The properties were analyzed and retrofitted to inform the design of the prescriptive list and tune its performance to a HERS 120 level. By completing real-world analyses and retrofits, the case studies provided valuable information in the design of this program, including baseline energy performance and the cost and results of completing retrofits.

Estimated Costs

For the case study properties, the consultants contracted for all improvements that would be required to meet the proposed code and then measured actual energy reductions once the upgrades were complete. The city paid for the improvements to be made in all cases except one.¹ Initial inspections of the case study units showed that each unit already had between 38 and 110 points from the prescriptive list. Each unit was given a \$3,000 budget to implement energy efficiency measures; and the measures with the lowest cost and highest point value were chosen (these point values correspond to the highest carbon reductions). The units received between 13 and 34 points to meet the 100-point requirement, with costs ranging from \$675 to \$2,900.

While each project was unique, the study found that the following three measures typically resulted in the greatest savings:

- Insulation – crawlspace, attic, walls;
- Duct sealing; and
- Air sealing.

The following table summarizes the measures completed in each property to achieve the 100-point prescriptive requirement, associated costs, and greenhouse gas emission reductions.

¹ One of the properties – College, is a 35-unit apartment building where the city paid for the pre and post-improvement analysis but the property owner completed all the improvements independent of this project. The complete details of the property can be found at [College Avenue Multi-family Energy Efficiency Case Study](#).

Case Study Results

Location	Measures completed	Initial HERS	Post-HERS	Initial Prescriptive Points	Post- Prescriptive Points	Projected GHG reductions per yr (tons CO2e)	Cost of Improvements	Estimated Annual Energy Savings	% Carbon Reduction
Ash – Martin Acres	Air sealing, Duct sealing, Insulation	170	126	67	101	2.4	\$2,872	\$304	20%
University – The Hill	Air sealing, Duct Sealing, Insulation	162	117	73	101	3.1	\$2,079	\$395	25%
Walnut – Downtown	Duct sealing, insulation	146	128	79	97**	1.17	\$675	\$146	9%
29 th St (Spanish Towers) – 30 th /Colorado	Duct sealing, Insulation	167	120	84	98***	1.4	\$800	\$172	20%
College - 29th and College*	Insulation Air Sealing Windows Doors Lighting Refrigerator	136	86	60	114	1.84	\$3,243	\$221	36%
Twin Pines (22 nd St) – Goss/Grove	None	114	NA	NA	NA	NA	NA	NA	NA
Pearl	None	105	NA	110	NA	NA	NA	NA	NA

* Average of six units in a 35-unit apartment building. Initial prescriptive points for these units were between 38 and 76. The units achieved between 29 to 61 points with an average unit cost of \$3,250. Two of the units sampled were already at the proposed code level for energy efficiency, therefore were not retrofitted in this study.

** The Walnut property achieved 97 out of 100 points, spending \$675. The remaining 3 points to meet the proposed requirement could be met through a low-cost retrofit to energy efficient light bulbs.

***The 29th St property did not meet the proposed 100 points, but did meet the proposed performance level of 120 HERS.

Special Housing Types

The proposed prescriptive list allows for flexibility in HOA-controlled, multi-family, and historic properties. The list is not rigidly prescriptive, so common obstacles in multi-family, HOA-controlled and historic housing can be overcome. For example, units in multi-family housing with district heat can choose other, more feasible upgrades that have comparable overall impact on improved efficiency and carbon reductions. The same is true for historic housing or homes under HOA control that have more limited improvement options. Since the prescriptive path assigns points for shared walls, the system can address multi-family housing under the same system as single-family homes.

A discussion of the recommended provisions for historic housing and affordable housing is included in the section following phasing options (see pages 25-26).

Other Factors Considered

Cost-effectiveness and simple payback

Since the majority of tenants pay their own energy bills, there is usually not an incentive for landlords to upgrade the energy efficiency of their properties. This is often referred to as the split-incentive. It is important to keep this in mind when discussing cost-effectiveness or return on investment for implementing energy efficiency in rental housing. To the extent market conditions allow, staff assumes that property owners will try to recover any expenses through rent increases. To amortize a \$2000 investment at 6% over 15 years would cost \$17/month. Although a rent increase of this magnitude may be completely offset by energy cost savings for many tenants, for some a rent increase may decrease the affordability of the property. If rent increases are not feasible due to vacancy rates or other factors, cost savings from efficiency measures would increase housing affordability for tenants paying energy bills.

While in most cases the person paying for the improvement is not recouping the cost through energy savings, the design of this program allows landlords to prioritize measures that will generate the highest energy and carbon savings for the lowest cost. In other words, this program is asking landlords to implement measures that are the “low-hanging fruit” or the highest priority energy efficiency upgrades usually accomplished first and foremost with owner occupied properties.

When the split-incentive is not a factor, simple payback is often how energy efficiency improvements are prioritized. There are program proposals around the country that would require installing measures that have a five year or less payback. There are a few reasons that model was not incorporated into this program. Primarily, the person paying for the improvement is not necessarily being paid back for the improvement (split-incentive) and secondarily, the cost to audit and analyze a specific property to assess which measures would provide a simple payback of five years or less might be better spent on actual improvements. Lastly, the program presented here is designed to prioritize improvements based on the prescriptive list; therefore it is inherently built into the program – the measures that generate the most points for the least amount of money are already prioritized through the list.

Another approach for analyzing cost-effectiveness is return on investment. The consultants include a description of this in their [report](#). The case studies are analyzed for their ability to be cost neutral from the start based on the monthly improvements financed at 6 percent for 15 years. Therefore, the economic impact of these building improvements can be offset by increased energy efficiency and lower overall operating costs. Again, this is only relevant when the person paying the improvements is recouping the cost through energy savings, but could be a way for a landlord to structure increases to rent to result in equal or greater energy cost savings for the tenant.

Innovation points

Staff anticipates the need for a method of considering energy efficiency improvements that are not addressed by the proposed performance or prescriptive measures. The innovation points measure is meant to provide an allowance for a property owner or agent

to demonstrate equivalent or better GHG savings for features already present in their properties that cannot be verified or documented through the performance and prescriptive measures. For example, one scenario described in public comments involved a fairly large photovoltaic system on the roof of a multi-family apartment building. Since the system was not net-metered through individual dwelling units, compliance with the performance or prescriptive measures is not easily determined. However, the system results in GHG savings for the building comparable to those sought by the SmartRegs program. The innovation points measure is meant to provide a compliance path for existing and to-be-developed technologies, which can demonstrate GHG savings comparable to the conventional measures.

Staff Recommendation

Staff recommends that rental property compliance with the energy efficiency requirements would equal 100 points on the prescriptive list or a score of 120 or less on the HERS scale through the performance pathway. Both the prescriptive and performance levels are believed achievable in most properties over a reasonable time period and at a reasonable cost when comparing the amortized monthly expense to anticipated monthly energy cost savings.

PHASING IN COMPLIANCE

To allow property owners time to accrue capital for investments in energy efficiency, development of the proposal has considered phasing in the requirements over multiple rental license cycles. The first iteration of phasing options was presented in November at public meetings and can be found at [Initial Energy Efficiency and Compliance Options - Nov. 2009](#). The following options were developed subsequent to that, through work with the Community Working Group and public input, and evaluated as outlined below.

Phasing options considered include:

1. First Rental Cycle

- At the time of the first rental license renewal, property owners must demonstrate compliance with the energy efficiency requirements.

2a. Two Rental Cycles—Larger investment in first phasing period

- At the time of the first rental license renewal, property owners must either:
 - Demonstrate an increase of 50 points on the prescriptive list from the baseline that is determined by crediting the property with prescriptive measures that already exist. In cases where the property's baseline is greater than 50 points, the property would need to get the amount of points (less than 50) to reach 100 OR
 - Comply with HERS 120 on the performance path²
- At the time of the second rental license renewal, property owners must:
 - Achieve the remaining points on the prescriptive list to reach 100.

² It is not recommended to phase-in the performance path since the cost of HERS ratings range from \$600-\$1,000/each. If the performance path is phased, this cost would be incurred at each phase.

2b. Two Rental Cycles—Larger investment at end of the phasing period

- At the time of the first rental license renewal, property owners must either:
 - Demonstrate a baseline of 50³ points on the prescriptive list. In the case that the property's baseline is less than 50 points, the property would need to get the amount of points needed to reach 50.
 - Comply with HERS 120 on the performance path
- At the time of the second rental license renewal, property owners must:
 - Achieve the remaining points on the prescriptive list to reach 100.

3. Two rental cycles with offsets

- At the time of the first rental license renewal, property owners must either:
 - Purchase four years worth of carbon offsets or contribute to a local investment fund OR
 - Demonstrate compliance
- At the time of the second rental license renewal, properties must demonstrate compliance.

4. Voluntary compliance: Rental Rating System

- This option would encourage voluntary compliance through a rental rating system (see page 29).

All options assume the city's support in development of a rental rating system, a voluntary database where property owners could list the efficiency of their property (see page 29) for the benefit of prospective renters to choose more or less efficient properties.

The table on the following page summarizes the pros and cons of each option. A complete description of the options, including analysis of the financial and greenhouse gas impacts and a decision matrix can be found in Attachment K.

³ Most of the case study properties' baseline points were close to or over 50.

Phasing Option	Pros	Cons
1. First Rental Cycle: All properties must comply with requirements at the time of their first rental license renewal	All units upgraded to code by 2014	Investment over short timeframe Contractor workforce may not be able to handle capacity
2a. Two Rental Cycles: Larger investment in beginning of phasing period	Phases in investment for properties starting with less than 50 points as a baseline Allows contractor workforce time to develop	Small amount of GHG reductions by 2012 Majority of investment may be required in first cycle All units upgraded to code by 2018
2b. Two Rental Cycles: Larger investment towards end of phasing period	Spreads the cost out over a longer time period Allows contractor workforce time to develop Longer timeframe for upgrades could allow property owners to take advantage of tenant turnover as a time to complete upgrades	Smaller amount of GHG reductions by 2012 All units upgraded to code by 2018
3. Two rental cycles with offsets	Small investment initially while property owners accrue funds for improvements Offsets contribute towards 2012 goal Percentage of offset funds or entire local investment would fund local projects	Funds spent on offsets will not provide long term GHG emissions reductions Funds spent on offsets/local investment are additional to money that will need to be spent on building upgrades All units upgraded to code by 2018
4. Voluntary compliance: Rental Rating System	Allows contractor workforce time to develop Tests the market-based approach for a rental rating system	Unable to estimate the impact and effectiveness Approach depends on market transformation - renter's valuing more efficient properties above other factors

Staff Recommendation

Staff recommends Option 2b, phased over two rental cycles with the larger investment towards the end of the phasing period. This option performs well in meeting the goals outlined on pages 13-14. It meets 13 percent of this sector's contribution to the current CAP goal by 2012 and 91 percent by 2018. Through this option, all of the currently licensed rental properties will be upgraded by 2018. It also includes a hardship provision described in the offsets/local investment section on page 24. A decision matrix, including criteria that informed staff's recommendation, is detailed in Attachment K.

While staff's recommendation does not meet this sector's full contribution to the GHG goal by 2012, staff expects other strategies such as conservation to contribute to the overall GHG emissions reduction of this sector. Option 3, which includes the purchase of offsets, would achieve 95 percent of this sector's contribution towards the goal by 2012. If this option is preferable, the amount of offset purchases required could be increased to achieve 100 percent of this sector's contribution to the goal by 2012.

Offsets and/or Local Investment

The purpose of carbon offsets is to provide a way to contribute to renewable energy for entities or individuals that cannot reduce emissions on their own. A common example is when an individual purchases carbon offsets to compensate for the greenhouse gas emissions caused by personal air travel. The money from the purchase of offsets is used to fund an energy efficiency or renewable energy project that reduces carbon emissions. In Colorado, the Governor's Energy Office's Colorado Carbon Fund (CCF) aims to provide high quality carbon offsets to consumers as a way to support new energy efficiency and renewable energy projects to reduce greenhouse gas emissions. The CCF only funds projects in Colorado.

In the context of the proposed energy efficiency code, offsets can serve as a bridge to allow a potentially smaller investment on the part of the property owner for a period of time before an investment is required for property upgrades. Offsets contribute to the GHG emissions reduction goal, but are only valid for a year, at which time they must be repurchased. Energy efficiency improvements, on the other hand, result in ongoing emission reductions. If offsets are purchased through the Colorado Carbon Fund, 20 percent could be reinvested into the local community. The remainder can be spent on projects elsewhere in Colorado, which does not further the goal of upgrading the existing housing stock in Boulder. As a bridge, any money spent on carbon offsets is additional to money that will need to be eventually spent on upgrades to the property. If offsets are allowed to be purchased in an ongoing way, the goal will not be met to improve Boulder's existing rental housing stock.

Another option to offsets could be a local investment program. For the same amount of funding, the GHG reductions would be considerably less through a local investment program (Colorado Carbon Fund offsets currently cost \$20 per ton; a local investment would not be able to reduce a ton of emissions for \$20) and would require local administrative capacity to manage. However, the following potential programs could still reduce the city's greenhouse gas emissions:

- Create a grant fund for local non-profit affordable housing agencies for energy efficiency improvements.
- Provide additional funding for the city ClimateSmart Solar Grant fund that grants money to owner-occupied affordable housing and all site-based non-profit organizations to install solar. There are currently two grant cycles per year.
- Use a portion to implement an urban forestry tree-planting pilot program. Staff from urban forestry estimates that a tree planting pilot program of approximately \$50,000 could be administered under existing staffing levels. Anything greater than this funding level would not be sustainable at this point.

Hardship provision

It should be noted, in all options, the prescriptive list staff is proposing includes a “hardship provision” that will be available to owners who can demonstrate an inability to pay for the upgrades for particular housing types. This provision will only be available to extend the time to comply for one rental licensing cycle. The provision will include the purchase of offsets or investment in a local investment fund in proportion to the upgrades required to make the units comply with the proposed 100-point requirement. Requests will be handled through an appeal to the Chief Building Official. Staff is proposing that funds generated through the hardship provision be used to grant monies to affordable housing rental properties that cannot comply with the proposed requirements. See pages 25-28 for details on affordable rental housing and the proposed use of these funds.

The following table outlines the pros and cons of offsets versus a local investment.

	Pros	Cons
Offsets - Colorado Carbon Fund	Verifiable GHG emissions reductions Funds projects in Colorado A percentage (~20%) reinvested in city projects Tracked and managed through 3rd party	Majority of money likely spent outside of city
Local Investment Option	All funds spent in city Greater flexibility in how money is spent – affordable housing example	Requires city administration to manage fund Not likely to provide additional verifiable GHG emissions reductions

It is difficult to estimate the amount of money that would be generated through this mechanism for a hardship provision. The table below demonstrates an example of the difference between investments in offsets versus installing solar electric systems.

Investment of \$3M	Estimated GHG emissions reductions (tons CO2e)	Explanation
Offsets	150,000	These reductions could only be counted towards the goal in the year they are purchased. If purchased in 2012, they would provide a substantial amount of reductions towards the goal, but would not be sustained beyond 2012.
Solar	1,500	These reductions would be sustained for approximately 20 years, the life of the solar system.

Staff Recommendation

Staff recommends implementing a local investment fund through the hardship provision that would provide grants for affordable housing properties that cannot meet the proposed energy efficiency requirements (see pages 25-28 for more details). Housing and Human Services would administer these grants through their existing administrative processes.

Special Housing Types

Historic Housing

In 2006 “The Historic Preservation/Environmental Sustainability Integration Project” provided information to create some “General Design Guidelines for Boulder’s Historic Districts and Individual Landmarks” when energy efficiency measures are contemplated. The information from the project has been incorporated into the IPMC and energy efficiency appendix so that existing window and door assemblies in historically designated structures would be allowed to be rebuilt using existing materials to maintain the original appearance. Since the addition of storm windows improves energy efficiency, rehabilitating windows and doors on historically designated buildings and adding storm windows would be awarded point values similar to upgrading to new windows at the level of U-0.35 for a building which is not historic (see Attachment I). A wide range of energy efficiency point options have been developed to provide flexibility for improving energy efficiency in ways that do not affect the historic integrity of the building.

Affordable Housing

In pursuit of the 10 percent affordable housing goal, the city partners with local agencies to fund rental housing. By housing community members with limited incomes, the agencies support the city’s social and economic sustainability goals. Affordable rental housing operates with two significant economic constraints: rent amounts and increases

are regulated and resident incomes are limited. These constraints, coupled with the agencies' desire to serve those with the greatest housing needs, make it difficult to generate additional income for capital improvements such as energy efficiency measures. In some cases, where the provider pays the utility costs, energy efficiency upgrades could serve to reduce operating expenses through lower energy bills in the properties. However, for the remainder of the properties, income and reserve funds spent to comply with energy efficiency requirements could reduce the agencies' ability to maintain their properties and/or to serve their current residents.

To discuss how to resolve the potential conflict between the city's affordable housing goal and the Climate Action Plan goals for energy efficiency, city staff convened a focus group of affordable housing providers, which met twice. The main outcome of these focus groups involved the pursuit of federal weatherization funds for the majority of this housing stock. See Attachment L for more details on this housing stock and the stakeholder process.

The city currently counts 2,061 affordable units that require rental licenses. They are owned and operated by 19 agencies. Of the 2,061 units, 1,220 should meet the proposed requirements without additional investment due to recent construction (553 units built post-2001) or because they have had substantial rehabilitation and upgrades (667). An estimated 547 of the remaining 841 units should be eligible for free weatherization programs, leaving only 294 units that are not eligible. However, due to weatherization program priorities and capacity, property eligibility does not assure access to the free improvements. Assuming conservatively that half of the eligible units will actually receive weatherization, approximately 570 affordable units (28%) will require investment in energy efficiency improvements to meet the proposed requirements.

At an estimated average cost of \$1,500 - \$2,000/unit to achieve the proposed standards in the compliance period, it would cost a total of \$855,000 to \$1,140,000 for the 570 affordable units. These units would still qualify for the city assistance programs and Xcel Energy, state and federal rebates, which would offset a portion of the cost of improvements. Since it is difficult to predict with certainty the exact cost impact, a range is presented.

Options

For the Affordable Housing sector of the rental housing stock, proposed compliance phasing options fall into two categories:

Properties eligible for weatherization

- **Properties weatherized after September, 1994** would meet the requirements of this program.
- **Properties not weatherized after September, 1994**
At the time of first rental license renewal, the property must be on the wait list to receive weatherization. At the time of the second rental license renewal weatherization improvements would need to be completed to bring the property

into compliance. If a weatherization-eligible property did not comply by the time of the second rental license renewal, it would need to either demonstrate that it was scheduled for weatherization under the federal program, or demonstrate a hardship that could qualify it for local funding of improvements, and/or allow the agency to provide a compliance plan outlining how the property would be brought into compliance within a mutually agreed period of time.

Properties not eligible for weatherization

Option 1: Allow some affordable housing properties to extend the compliance period

This option allows the 28 percent (570) of affordable housing units that do not qualify for weatherization services to have two rental license cycles to demonstrate compliance. All affordable housing properties that can demonstrate ineligibility for weatherization programs would be granted a rental license at the first renewal. At the second renewal, an affordable housing property would either demonstrate compliance or request an extension for the next four-year cycle from the City Manager (providing a total of 8-12 years for compliance). The extension would be based on a financial analysis of the property's inability to fund necessary improvements without having a significant impact on housing affordability for the target population. This demonstration of hardship could qualify the property for local funding of improvements (see page 24). At the third license renewal period, the property would need to demonstrate compliance or provide a compliance plan outlining how the property would be brought into compliance within a mutually agreed period of time.

Pros:

- This option avoids the negative impact of the new requirements on affordable housing properties that are unable to finance improvements.
- Providing an extension of the compliance period for affordable housing reduces the need to identify and secure funds for improvements from city or non-city sources.
- All of these properties will eventually invest in substantial renovations over time and could finance and complete the energy efficiency improvements at that time with minimal impact.
- Extending the period within which the properties would have to comply could allow for more availability of weatherization services.

Cons:

- This option could result in some affordable housing properties not receiving energy efficiency upgrades for up to 12 (or more) years.

Option 2: An affordable housing efficiency fund could be created

For \$200,000/year, approximately 100 affordable units could be improved each year. In order to provide full funding for all 570 units, this level of funding would need to continue for five to seven years. Possible sources include: Climate Action Plan Tax (through 2012 only), local investment fund, affordable housing funds or General Fund.

Pros:

- This option would meet the goals of improving the existing housing stock by funding the improvements for the properties that cannot comply on their own without negatively affecting affordable housing

Cons:

- Utilizing city funds for this purpose would reduce the funding available to pursue other city goals.

Staff Recommendation

Staff recommends Option 1 which allows the 28 percent (up to 570) of affordable housing units that may not qualify for weatherization services the ability to receive a rental license for up to 8-12 years without affecting the low-income populations residing in them. This option reduces the need for direct funding from the city for these properties' energy efficiency upgrades.

Staff evaluated other options for these housing units; details can be found in Attachment L.

IMPLEMENTATION ENHANCEMENTS/STRATEGIES:

Status of the Two Techs and a Truck Program

This program is currently being designed to deliver a one-stop-shop service to Boulder homes. The goal of the program is to remove common barriers to making energy efficiency upgrades. The Cadmus Group and Energy Logic are currently designing the program including a complete implementation plan. It is expected that homes participating in the first tier of service will receive a few basic energy efficiency upgrades and be given the opportunity to make more substantial changes through follow up visits. Teams of auditors and technicians will deliver two or three tiers of energy reduction options.

- All energy reduction packages will likely include small city subsidies for audits, significant financial assistance programs, rebate forms completed on-site and educational materials for those choosing to make additional changes.
- The concept of the program includes the ability to take advantage of economies of scale through pre-negotiated bulk purchasing discounts for materials and services.
- Services to individual properties will be organized by blocks, neighborhoods and existing social networks like schools and churches, as well as large property owners or affordable housing providers.

The design team is analyzing information on the SmartRegs proposal so any requirements through SmartRegs will fit into a "Two Techs – SmartRegs compliance package." The city expects to have the final design from the consultants by mid-May to begin implementation immediately thereafter. There are many local contractors ready to begin implementing this type of work immediately and the program will include plans for continued workforce development through training.

Grants/Federal Funding

Grants

The city partnered with Boulder County, the City and County of Denver, the Governor's Energy Office, and Garfield County to apply for a Department of Energy Competitive Energy Efficiency and Conservation Block Grant (EECBG-C) called "Colorado Retrofit-Ramp-up Program."

The grant request was for \$75M to support activities in three areas of retrofits:

- Access to services
- Access to information
- Access to capital

The grant proposal would widely expand existing efforts and create new mechanisms to increase the rate of energy retrofits. This grant could dramatically increase the opportunity for energy retrofits in the City of Boulder as well as address the financial impact of the SmartRegs program. The County is expecting notification on the award status of this grant by mid-April 2010.

Home Star

Home Star is a proposed federal program that would provide direct incentives to homeowners who invest in improving the energy efficiency of their homes. At this time, the program has not been passed into law and it is not clear whether or not it would apply to rental property owners. Staff is tracking the program developments through Efficiency First's Colorado chapter and the Governor's Energy Office.

Rental Rating Program

In response to input from the Community Working Group and public feedback, staff is working with stakeholders to develop a rating system for rental housing that would inform renters which properties are the most energy efficient.

- Properties that meet as well as exceed the minimum code levels for efficiency could be listed in a centralized database.
- A marketing campaign/recognition program would be developed to raise awareness among renters about the total cost of occupancy of a rental unit, including rent and utilities.
- A campaign would encourage renters to ask for the efficiency rating of the property.
- If renters choose properties based on their energy ratings, landlords would have an incentive to upgrade their properties to remain competitive in the market.

Details associated with the design and cost of developing and maintaining this system are currently being researched.

Xcel Rebates

There are a number of rebates available through Xcel Energy's demand side management programs that provide direct rebates for installing many of the measures that are proposed required through SmartRegs. A list of current rebates can be found at [2010 Residential Rebates and Incentives for Energy Efficiency and Renewable Energy](#). Through the

franchise negotiations, the city is working with Xcel to guarantee that Boulder property owners will still qualify for all of Xcel's demand-side management program rebates.

Contractor Licensing

It is proposed that energy efficiency compliance be verified through private inspections similar to the existing rental housing inspection process. Two types of licensed energy efficiency inspectors will be necessary to support the performance or prescriptive compliance paths:

- For performance based compliance it is proposed that inspection verification be performed by Residential Energy Service Network (RESNET) certified raters and inspectors. RESNET is a nationwide third party certification company currently utilized for the city's residential Home Energy Rating Systems (HERS) plan review submittals and final inspection program. Staff proposes that RESNET certified inspectors perform the inspection verification for performance based compliance.
- For prescriptive based compliance, components would be inspected by licensed inspectors holding a proposed "G" license. The "G" license would use the "D-9 Rental Housing Inspector" qualifications as a base then add a city sponsored energy efficiency inspection certification program. Utilizing the D-9 contractor license qualifications as a base for a "G" license efficiently accommodates rental housing inspection requirements. The fee to obtain this license is proposed to be \$15.

To be cost effective for applicants, energy efficiency inspections could be made in conjunction with regular rental license inspections. Discussions with licensed rental housing inspectors serving on the Community Working Group have commented that this is a viable approach. Information on cost estimates to include energy efficiency inspections as part of the existing rental housing inspection have been in the range of an additional \$25-\$100/unit. This does not include the cost of specialized testing for energy efficiency such as blower door or duct leakage tests.

If the proposed ordinance is adopted, staff would partner with local experts to provide training workshops for professionals that may want to apply for these licenses.

Staff is aware that new requirements for lead based paint will be in effect on April 22, 2010. These requirements will be enforced through the Environmental Protection Agency's (EPA) 2008 Lead Renovation, Repair, and Painting Program. Contractor's will be required to obtain certification from the EPA under this program for any renovation activity disturbing at least six square feet of interior space and twenty square feet of exterior space on homes built before 1978. Certification classes are available in Boulder at a cost of \$180 for an eight hour class.

Staff Recommendation

Revise Title 4, Chapter 4, Building Contractor License, B.R.C. 1981, to include provisions for a Class G license to entitle the licensee to inspect prescriptive energy efficiency measures effective January 3, 2011. (Attachment E)

Terms of Rental Licenses

The projected GHG reductions pursuant to the energy efficiency proposal are based on a certain number of rental license renewals every four years. In order to maintain the premise of the proposal, it is important to consider a provision to limit the number of applicants with license renewal dates in 2011 from renewing earlier than January 3, 2011.

Staff Recommendation:

Staff recommends revising Title 10, Chapter 3, Terms of Rental Licenses, B.R.C. 1981 to limit the number of applicants with license renewal dates in 2011 from renewing earlier than January 3, 2011. (Attachment E)

NEXT STEPS:

The proposed changes will be reviewed by the Landmarks Board, Environmental Advisory Board and Planning Board before being scheduled for City Council consideration on May 4 (first reading) and May 18 (public hearing and second reading). The proposed implementation date is January 3, 2011 to support the complete implementation phase such as the update of all application materials, the handbook, and the Web; preparing and scheduling training workshops, and to allow additional time for workforce development. Staff also proposes to send an information postcard in July to all rental property owners about the revised ordinances. The development of a Commercial Energy Conservation Ordinance (CECO) is also being analyzed and will be scheduled for council consideration during the fourth quarter of 2010.

ATTACHMENTS:

- Attachment A: Proposed International Property Maintenance Code
- Attachment B: Proposed Rental License Code Update
- Attachment C: Proposed Fees Update
- Attachment D: Appendix C_Energy Efficiency Requirement
- Attachment E: Proposed Contractor License and Rental License Term
- Attachment F: Program Cost Detail
- Attachment G: Program Funding Options
- Attachment H: Draft Rental Housing Program Handbook
- Attachment I: Prescriptive Path
- Attachment J: Consultant Executive Summary
- Attachment K: Phasing Options
- Attachment L: Affordable Housing