

4/26/16 Draft for EEC Required HES for rental houses

Executive Summary

This is a proposal to add a requirement to the application for a rental certificate as defined in Article V, Section 22-186 of Columbia, Missouri's code of ordinances. If adopted, one of the following must be met in order for a rental certificate to be issued for single-family rental houses, two-family rental houses, and townhouses.

A Home Energy Score (HES) with a minimum score of 7, or
A Columbia Water & Light Efficiency Score (CWLES) with a minimum score of 70%

Benefits

- Columbia has a good chance of winning \$5 million in the Georgetown University Energy Prize. Our chances will be improved by ordinances showing Columbia's long-term commitment to energy efficiency. Winnings could be used for additional energy improvements.
- This proposal will contribute to the strategic goal of improving social equity by reducing bills for renters.
- Home Energy Scores or Efficiency scores will allow renters to project the cost utility bills. Renters are less likely to run into financial difficulty due to unexpected energy costs.
- Energy efficiency improvements result in more disposable income for renters.
- Money spent on home improvements by landlords is money spent in Columbia rather than payments to electric and natural gas production companies outside Columbia. Improvements produce jobs in Columbia.
- Decreased energy demand from Columbia Water & Light will reduce the need for additional generating capacity and transmission lines, etc. in Columbia,

thus

keeping electricity prices down for all customers not just occupants of the improved properties.

□ Landlords and homeowners can use high HES and CWLES values to market their

properties. Improved efficiency will improve the value of the property.

□ Decreased energy demand reduces emissions, which improves environmental

and human health.

□ Reduced demand helps Missouri meet the Clean Power Plan.

Definitions

Home Energy Score (HES): developed by the US Department of Energy and is similar to

EPA's miles per gallon (MPG) rating for cars, measuring the equipment, not owner's

habits. The HES ranges from 1 to 10 with high values indicating less energy use and

lower energy bills. In addition, an estimated dollar cost, at current rates, is provided

with a plus or minus range of 15%.

Columbia Water & Light's Efficiency Score (CWLES): developed by Columbia Water and

Light to measure how well a house was achieving its own potential and reasonable

energy efficiency capability. As with cars, smaller houses tend to use less energy which

influences the HES. The CWLES is independent of house size and is a good way to

compare energy costs of similar-sized houses with similar construction. It is given as a

percentage, from very low to 100%, with high values reflecting the lower energy use and

smaller energy bills achievable in that particular house.

These scores are also provided for Boone Electric Cooperative customers who go

through the Home Performance with Energy Star program.

Background

Energy bills can easily be more than half as much as rent. It is important for renters to know the typical size of expected energy bills. However, since energy bills are highly influenced by occupants' habits, past bills may not reflect costs that new occupants will likely incur. The HES measures the house, rather than the past occupants. It is accompanied by a CWLES, which compares energy use to similar sized houses. Like cars, larger houses typically use more energy. Many larger houses cannot achieve a HES of 7, but all houses can achieve a high CWLES, so either score at appropriate levels is accepted.

Process

The HES is obtained by having the single-family home, duplex or townhome evaluated by a certified independent inspector for approximately \$150. The inspector provides an assessment, which recommends cost effective improvements that will reduce energy use and bills. No improvements are required, but if any are made, the inspector reevaluates the house and passes the information to the utility, CWL or Boone Electric Cooperative, to calculate the score. Significant improvements earn rebates up to \$1,200 from the utility, and may cover inspection fees. CWL also makes low-interest loans to cover costs. A certificate with the HES and CWLES is provided to the owner by the utility.

Data on Rental Property for which scores are currently available

Slightly over 7,000 homes in Columbia have been through the Home Performance with Energy Star program. Of these almost 2,500 have had HES rating assigned. Just over

550 of these are rental houses. The process provides a pre-energy-efficiency assessment and a post-energy-efficiency assessment. About half of the rental units would have surpassed the recommended standards initially based upon the preassessment. Ninety-nine percent of them would have passed based upon the postassessment scores. The units which would not have passed the proposed standards could easily have passed with a few basic improvements. EEC recommends grandfathering in the units which have already been through the Home Performance with Energy Star program.

The cost of Assessment

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Assessment is done by a certified assessor. Information on assessors can be obtained by contacting your electric provider in Columbia. For an assessment, costing about \$150, one receives a Home Energy Score and a Columbia Water and Light Efficiency Score.

If one goes through improvements with the Home Performance with Energy Star (HPwES) program, as 3,947 customers have done, a pre assessment and recommended improvements will be given. Assessment will be repeated after some, or all, improvements have been made. The assessor will charge \$200 and typically the utility will pay the assessor. In addition the utility provides up to \$1,200 in rebates based upon the level of improvements.

Below are the three most common and cost effective items with typical rebate amount.

Attic insulation: This is the most frequent improvement, done by 83% of 3,947 customers.

The maximum rebate is \$500.

The average rebate was \$261.70 and accounts for 39% of all rebates.

Air leak sealing: This is the 2nd most frequent rebate done, by 69.14% of

customers.

The maximum rebate is \$420.

The average rebate was \$176.03 and accounts for 22% of all rebates.

Air Duct Sealing: This is the 3rd most frequent rebate done, by 34% of customers.

The maximum rebate is \$300.

The average rebate was \$142.63 and accounts for 9% of all rebates.

The average rebate for 3,947 customers is \$559.51 for all improvements.

Other insulation improvements have rebates of up to \$500 for wall, floor or crawl space.

Additional rebates are available including HAC up to \$1,600, and \$500/kW for photovoltaic installation.

Out of pocket expenses average \$1,388 for the more than half of HPwES customers who did no improvements other than some of the three items above and funded it without using the available loan program. Their rebates averaged \$446. We expect that most rental units will fall within this group. In addition houses with gas heat receive rebates from Ameren. Consequently several individuals have said they had no out of pocket expenses.

Out of pocket expenses averaged \$4,475.73 for all 3,947 HPwES customers with higher costs driven most by expensive improvements such as new HAC, furnaces, windows and doors, and improvements not related to energy efficiency which show up on bills submitted but not broken down into items.

Loans are available for CWL customers to cover all expenses. Interest rates are 1% for up to 3 years, 3% for 4 to 5 years, and 5% for 6 to 10 year loans.

Cost of maintaining rental property is passed on to renters.

Savings on Utility Bills

Cost reductions for household energy averages near 20% for houses going through the Home Performance with Energy Star Program. That would reduce a typical 850 kWh electrical bill by about \$15.80 per month and natural gas bills by 20% as well.

Summary of Comments from meeting with Constituents

Renter Comments

Landlord comments

Vision & Strategic Plan Impacts

Vision Impacts

Primary Impact: Topic 9: Environment: Goal 9.3 Energy Efficiency: 9.3.6 model energy code ordinance

Strategic Plan Impacts

Primary Impact: Social Equity: Outcome 7. Reduce carbon footprint, with emphasis on reducing residential energy. Increase participation in home energy efficiency programs.