

MEMORANDUM

TO: Columbia City Council

FROM: Water and Light Advisory Board 

DATE: January 12, 2015

SUBJECT: Council Referral for Efficiency Score and Home Energy Score

At the November 17, 2014 City Council meeting, the Environment and Energy Commission (EEC) provided a report to the City Council recommending that the Council allow City's GIS public map posting of the Department of Energy - Home Energy Scores (DOE-HES) and the Water and Light Efficiency Scores (CWL-ES). After consideration of this EEC recommendation, the City Council referred the request for direction from the Water and Light Advisory Board. On December 29, 2014, John Conway, Water and Light Board Chairman, Lawrence Lyle, Environment and Energy Commission Chairman, Barbara Buffaloe and Tina Worley met to discuss the intent of the EEC recommendation. Those attending the meeting agreed that it would be beneficial for Water and Light staff to provide an overview of the Efficiency Score to date, along with the timeline for implementation.

The DOE-HES is a quick and easy-to-use tool to identify housing energy efficiency. The rating concept is similar to a vehicle's mile-per-gallon rating. The DOE-HES allows for the energy performance comparison of different homes. It also provides suggestions for improving a homes' efficiency. The DOE-HES is established with Building Performance Institute qualified assessors that gather the information needed to assess a home in one short site visit. This assessment can be provided as a stand-alone service, an add-on to a home inspection or a comprehensive energy assessment. Water and Light was one of the first participating DOE partners to help develop the DOE-HES and provide guidance on using the tool for scoring a homes' performance. Early in the partnership, Water and Light staff realized that the HES would not serve the purpose of all interested in seeking a home rating. Staff quickly developed a new scoring system (ES) in coordination with other stakeholders. The ES is based off the modeling created for the DOE-HES. The CWL-ES is a little more appealing to the homeowner in that it allows a home to be compared against a house of similar size or against itself providing a scale of 0 – 100 % efficiency. This type of score design and interpretation is commonly associated with the Energy Guide found on refrigerators or freezers.

The ES is still relatively new to Water and Light. The development, marketing and implementation plan for the ES was outlined in the staff implementation plan of the 2013 Integrated Resource Plan update (IRP-SP). Since the approval of the implementation plan, staff has been working to meet the goals and targets outlined for ES.

To date the following ES objectives have been achieved:

- CWL-ES has been finalized and approved by DOE. Water and Light staff continues to discuss the benefits of the Efficiency Score with multiple stakeholders.
- Staff has trained and certified BPI contractors participating in the HPwES program to complete a DOE-HES and CWL-ES.
- Staff is working with the Missouri Department of Economic Development's Energy Division to recognize and accept the CWL-ES as a recognized scoring tool for the state wide initiative to rate and score homes.
- A CWL-ES is being created for properties participating in the Enhanced Home Performance with Energy Star program.
- Staff is working with the Columbia Board of Realtors, home inspectors and other key stakeholders to understand the value created by the CWL-ES and to encourage the use of the CWL-ES on real-estate listings.
- Training classes for these trade allies have begun. The training is offered by certified BPI trainers within Water and Light.
- Water and Light staff are working with the City's IT and GIS departments to develop an efficient means for the ES to be posted to the City's website. The goal is to input building characteristic data during field assessments directly into a city hosted online data management system which will have the necessary energy modeling incorporated. The system will be made available to BPI contractors or CWL staff conducting energy audits. This direct data entry will reduce the duplication of data entry and time needed to create the ES. It is anticipated that the online data management system will be completed by IT staff in the third quarter of 2015.
- In the interim, Water and Light staff are manually creating the scores by entering data collected from the home energy assessments. At present, the score takes approximately 15 minutes to generate. These scores will be added to the City's website as time allows.