

Introduced by _____

First Reading _____

Second Reading _____

Ordinance No. _____

Council Bill No. B 27-13

AN ORDINANCE

appropriating funds for the Enhanced Home Performance with Energy Star program; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The sum of \$100,000.00 is hereby appropriated from the Retained Earnings Account No. 551-0000-351.01-00 to the Refunds Account No. 551-7030-600.50-01 for the Enhanced Home Performance with Energy Star program.

SECTION 2. This ordinance shall be in full force and effect from and after its passage.

PASSED this _____ day of _____, 2013.

ATTEST:

City Clerk

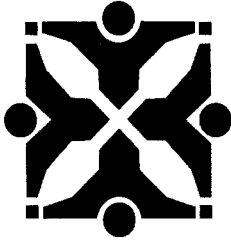
Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor

CERTIFICATION: I certify there are sufficient funds available in the Retained Earnings Account No. 551-0000-351.01-00 to cover the above appropriation.

Director of Finance



Source: Water & Light *[Signature]*

Agenda Item No:

To: City Council
From: City Manager and Staff *[Signature]*

Council Meeting Date: Jan 22, 2013

Re: Enhanced Home Performance with Energy Star (EHPwES)

EXECUTIVE SUMMARY:

Staff has prepared for Council an ordinance requesting approval to re-appropriate funds for the *Enhanced Home Performance with Energy Star (EHPwES)* program. In March of 2012 Council approved an appropriation of \$100,000 to develop this program. The program, approved last year, was a pilot program with funding that expired at the end of September, 2012. The appropriation of \$100,000 approved last year was unutilized due to circumstances beyond CMCA's control. The issues that caused CMCA's delay in participation in the EHPwES program have been resolved. Water and Light staff and CMCA have met to discuss the program and have outlined a plan to move forward.

This program is built from Water and Light's existing Home Performance with Energy Star (HPwES) program. The program would use the HPwES model and adds the administrative and implementation capabilities of the Central Missouri Community Action (CMCA) Weatherization Assistance Program (WAP). The intent is to focus on low-income residents, a customer segment that Water and Light's energy efficiency programs have been unable to reach due to up front costs. This appropriation of \$100,000 would allow 40 income eligible homes to be weatherized to HPwES standards. The program period would start in March 2013 and end in September 2013. An evaluation of the program's effectiveness will be completed to determine future funding needs.

Boone Electric Cooperative (BEC) intends to match Columbia Water and Light's efforts for similarly qualifying customers in their service area.

DISCUSSION:

Through the proposed program, Water and Light and BEC could use CMCA's energy saving community service by providing weatherization and energy efficiency upgrades for those not able to make the improvements themselves. *EHPwES*, as proposed, would allow CMCA to continue weatherization work with customers who struggle with utility costs, yet cannot afford to participate in the standard Home Performance with Energy Star Program. *EHPwES* also serves as an attempt to significantly reduce the need for utility assistance. By partnering with CMCA in the *EHPwES*, Water and Light can insure continuity of service to a segment of the population at risk of becoming dependent on the already stressed utility assistance programs such as CASH/HELP.

Enhanced HPwES will rely on the existing Home Performance with Energy Star program as a model and the standard in evaluating and assessing energy efficiency upgrades. Over the past three years, HPwES has become Water and Light's most effective residential energy efficiency program, garnering recognition from state and national agencies. *EHPwES* would continue the same testing and evaluation methods utilized by HPwES with customers meeting the income requirements and be eligible for additional financing by allowing up to double rebate reimbursements offered in the original program.

The utility investment per eligible household will be determined by calculating the estimated savings per home based upon implemented Energy Conservation Measures (ECMs). These metrics have been used successfully in modeling Columbia's HPwES savings and results compared against other energy efficiency retrofit software programs (REM rate, HERS, etc.). Utility expenditures per household would be capped at \$2,900 per home, with an anticipated budgetary projection of \$2,500 average per household. *EHPwES* funding will be used in conjunction with funding from the Department of Energy to allow weatherization dollars to reach more distressed customers within the Water and Light territory. Recipients of *EHPwES* will fall below the 200 percent of the Federal Poverty Level as determined by The ARRA of 2009. This standard will be maintained by the WAP.

CMCA's role would be to verify applicant financial qualifications (utilizing the same format used for WAP qualification), confirm each applicant's electric utility provider, and provide pre and post energy auditing as well as all the work in providing weatherization and installation of ECMs. Water and Light's role would be to monitor the program, and compensate CMCA at the agreed rate of twice the normal rebate amount (up to \$2,900 cap per home).

In addition to existing HPwES rebates, *EHPwES* will offer a refrigerator replacement rebate of up to \$600 (See attached program policy). Refrigerators are the largest consistent consumer of electricity in resident's homes, and this rebate will seek to replace older, high consumption refrigerators with energy star compliant units. All rebates and incentives will be offered on a performance/prescriptive basis and inspected by Water and Light staff prior to rebate payments.

In order to achieve the greatest savings per home, *EHPwES* will focus primarily on insulating and air-sealing. Rebates for windows and doors will not be made available.

EHPwES will be available to both owner occupied homes and rental properties, where renters qualify. Rental properties will require a land lord contribution of 50% for single family properties and 30% for each multi-family unit. This percentage is based on cost of measures implemented and is payable to CMCA.

FISCAL IMPACT:

Appropriation of \$100,000 is requested.

VISION IMPACT:

<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

9.1 Goal: Columbia and its neighboring communities will be a place where the air, water, land, and natural aesthetic qualities of our environment shall be protected by a combination of conservation strategies including, but not limited to, regulations and ordinances, conservation incentives, education programs, and smart growth planning.

SUGGESTED COUNCIL ACTIONS:

Staff recommends the council adopt the proposed *Enhanced Home Performance with Energy Star* Program and allocate \$100,000 to be used to weatherize approximately 40 homes during the period of March 2013 to the September 30, 2013.

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$100,000.00	New Program/ Agency?	Yes	Federal or State mandated?	No
Amount of funds already appropriated	\$0.00	Duplicates/Epands an existing program?		Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?		Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	9.1
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	

Enhanced Home Performance with Energy Star

A Powerful Partnership

March 1, 2012

Columbia Water and Light

Boone Electric Cooperative

&

Central Missouri Community Action

Since 1975, Central Missouri Community Action (CMCA) has administered the Weatherization Assistance Program (WAP) to Columbia and surrounding areas. The primary goal of the WAP is to reduce the cost of heating and cooling, in qualifying homes, by increasing energy efficiency. This program has helped hundreds of Columbia Water and Light (CWL) and Boone Electric Cooperative customers lower their utility costs through implementing proven energy efficiency measures. The CMCA administered program focuses on low-income residents, a group that existing utility energy efficiency programs have been unable to reach due to anticipated upfront costs.

For the purpose of this report and proposal, discussion will be kept strictly to Columbia Water and Light, but it is the intent that CWL and Boone Electric will offer the same program for qualifying customers.

In the last two years, the WAP has benefited from the American Recovery and Reinvestment Act (ARRA) funding, however, as of March 2012, financial support for the WAP will be drastically reduced due to the scheduled ending of ARRA funds. It is anticipated that the well-trained talent pool of weatherization employees at CMCA will become a lost community resource unless alternative funding can be found. Through a proposed program called 'Enhanced Home Performance with Energy Star', CWL could help continue this valuable community service. Enhanced Home Performance with Energy Star, as proposed, would allow CMCA to continue weatherization work with CWL customers who struggle with utility costs and who could not otherwise afford to participate in the standard Home Performance with Energy Star Program. By partnering with CMCA in the Enhanced Home Performance program, CWL can insure continuity of service to a segment of the population that is at risk of becoming dependent on stressed assistance programs such as CASH/HELP.

Enhanced Home Performance will rely on the existing Home Performance with Energy Star (HPwES) program as a model and the standard in evaluating and assessing energy efficiency upgrades. Over the past three years, HPwES has become CWL's best performance based residential energy efficiency program, garnering recognition from state and national agencies. *Enhanced HPwES* would continue the same testing and evaluation methods utilized by HPwES, in addition to allowing rebate reimbursements up to double the dollar amount offered in the original program.

Utility investment per eligible household will be determined by calculating the estimated savings per home based upon implemented Energy Conservation Measures (ECMs). Utility expenditures per household would be capped at \$2,900 per home, with an anticipated budgetary projection of \$2,500 average per household. *Enhanced HPwES* funding will be used in conjunction with funding from the Department of Energy to allow weatherization dollars to reach more distressed customers within the CWL territory. Recipients of *Enhanced HPwES* will fall below 200 percent of the Federal Poverty Level (Figure 1) as determined by The American Recovery and Reinvestment Act of 2009. This standard will be maintained by the WAP post March 12, 2012.

CMCA's role would be to verify applicant financial qualifications (utilizing the same format used for WAP qualification), confirm each applicant's electric utility provider, and provide pre and post energy auditing as well as installation of ECMs.

In addition to existing HPwES rebates, Enhanced Home Performance will offer a refrigerator replacement rebate of up to \$600 (See attached policy). Refrigerators are the largest consistent consumer of electricity in resident's homes, and this rebate will seek to replace older, high consumption refrigerators with energy star compliant units. All rebates and incentives will be offered on a performance/prescriptive basis and inspected by CWL staff prior to rebate payment.

In order to achieve the greatest savings per home, *Enhanced HPwES* will focus primarily on insulating and air-sealing. Rebates for windows and doors will not be made available. (See Figure 2 for a breakdown of the rebate structure.)

Enhanced HPwES will be available to both owner occupied homes and rental properties, where renters qualify. Rental properties will require a land lord contribution of 50% for single family properties and 30% for each multi-family unit. This percentage is based on cost of measures implemented and is payable to CMCA.

By implementing *Enhanced HPwES*, CWL will continue to provide the best possible service to our customers as well as empower and serve the community to the best of our ability.

Eligible applicants would be within 200% of the 2012 Federal Poverty Level to qualify for
Enhanced HPwES

2012 FPL guideline

Family Size	Gross Yearly Income
1	\$22,340
2	\$30,260
3	\$38,180
4	\$46,100
5	\$54,020
6	\$61,940
7	\$69,860
8	\$77,780

Figure 1

Breakdown of Rebates and Incentives

Initial Audit Incentive - \$100

Post Audit Incentive - \$400

Improvement	Requirement	Available Incentive	Maximum
Insulation			
Attic flat Option1: Currently have less than R-27	R-38 Min (R-49 max)	2 cent/R-value per sq ft	
Attic flat Option 2: Currently have R-27 or greater	R-38 Min (R-49 max)	1 cent/R-value per sq ft	
Encapsulated attic slope	R-10 min (R-49 max)	6 cent/R-value per sq ft	
Wall insulation	R-13 min (R-19 max)	6 cent/R-value per sq ft	\$1000
crawl space wall*	R-10 min	10 cent/R-value per sq ft	\$1000*
Floor insulation over unconditioned space*	R-19 min & max	3 cent/R-value per sq ft	\$1000*
Rim Joist Insulation	R-13 min	\$40	\$40
Duct Insulation in unconditioned space	R-13 min	Prorated by % outside envelope	\$600
Building Envelope			
Air Sealing	Minimum 0.5 ach reduction	Prorated \$168 per ACH reduction	\$840
Duct Sealing	Duct blaster test with minimum 50 cfm reduction	Prorated \$100 per 100 cfm reduction	\$600
HVAC			
Heat Pump	Home Performance & 14 SEER	\$400 (plus AC/HP rebate)	\$400
Refrigerator Replacement			
Refrigerator	See refrigerator policy	\$600	\$600

Figure 2

*Only eligible for one of these rebates

Columbia Water and Light Refrigerator Replacement Policy

- a) Only new refrigerators and refrigerator/freezers can be installed in weatherized housing. Stand-alone upright and chest freezers cannot be installed. The replacement refrigerator must be an Energy Star-rated energy-efficient refrigerator with an estimated annual consumption of 400 kWh/yr. or less. New replacement units may not have through-the-door ice or water service.
- b) Refrigerator replacements are limited to one per household. The refrigerator to be replaced must be the primary unit and be located within the thermal boundary of the home.
- c) Rebate amount shall not exceed \$600.00 and will not exceed invoice amount. Invoice shall include any disposal, delivery, and haul away fees.
- d) Refrigerators are to be replaced with like sized units or smaller and shall not exceed 21.1 Cu. Ft.
- e) Refrigerators to be replaced must be metered for no less than 2 hours. Prior to metering, the refrigerator coils must be cleaned, the thermostat must be set within the ranges of 36° to 40° F for the refrigerator and 0° to 5° F for the freezer, and any automatic defrost must be adjusted so as to not activate during the metering. If the existing refrigerator is unable to be metered, it is ineligible to be replaced.
- f) All refrigerators replaced must be properly decommissioned according to the environmental standards in the Clean Air Act of 1990, section 608, as amended by Final Rule 40 CFR 82, May 14, 1993. Written documentation/certification that the refrigerator has been properly decommissioned must be presented in order to process any rebate.
- g) Replacement refrigerators must include a warranty that meets or exceeds:
 1. A one (1) year warranty on parts and labor
- h) Refrigerators to be replaced must meet one of the following requirements
 1. Refrigerator was manufactured prior to 1992
 2. Refrigerators is found to be consuming more than 900 kWh per year
- i) Any difference in the refrigerator invoice and rebate amount will be made up by the homeowner/landlord
- j) Landlords will cover 50% of refrigerator replacement costs in rental properties