

COMMITTEE ON LEGISLATIVE RESEARCH  
OVERSIGHT DIVISION

**FISCAL NOTE**

L.R. No.: 5149-03  
Bill No.: HCS for HB 1305  
Subject: Utilities; Environmental Protection; Natural Resources Department  
Type: Original  
Date: March 28, 2012

Bill Summary: This proposal modifies provisions relating to the Net Metering and Easy Connection Act, requires public elementary schools and high schools to conduct energy audits, and establishes requirements for environmentally sustainable construction for certain state funded buildings.

**FISCAL SUMMARY**

<b>ESTIMATED NET EFFECT ON GENERAL REVENUE FUND</b>			
FUND AFFECTED	FY 2013	FY 2014	FY 2015
General Revenue	(\$186,792 to Unknown)	(\$226,527 to Unknown exceeding \$1,000,000)	(\$228,931 to Unknown exceeding \$1,000,000)
<b>Total Estimated Net Effect on General Revenue Fund</b>	<b>(\$186,792 to Unknown)</b>	<b>(\$226,527 to Unknown exceeding \$1,000,000)</b>	<b>(\$228,931 to Unknown exceeding \$1,000,000)</b>

<b>ESTIMATED NET EFFECT ON OTHER STATE FUNDS</b>			
FUND AFFECTED	FY 2013	FY 2014	FY 2015
Energy Audit Fund*	\$0	\$0	\$0
<b>Total Estimated Net Effect on <u>Other</u> State Funds*</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\*Offsetting Transfers In and Disbursements

Numbers within parentheses: ( ) indicate costs or losses. This fiscal note contains 14 pages.

<b>ESTIMATED NET EFFECT ON FEDERAL FUNDS</b>			
<b>FUND AFFECTED</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
<b>Total Estimated Net Effect on <u>All</u> Federal Funds</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>ESTIMATED NET EFFECT ON FULL TIME EQUIVALENT (FTE)</b>			
<b>FUND AFFECTED</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
General Revenue	3 FTE	3 FTE	3 FTE
<b>Total Estimated Net Effect on FTE</b>	<b>3 FTE</b>	<b>3 FTE</b>	<b>3 FTE</b>

- Estimated Total Net Effect on All funds expected to exceed \$100,000 savings or (cost).
- Estimated Net Effect on General Revenue Fund expected to exceed \$100,000 (cost).

<b>ESTIMATED NET EFFECT ON LOCAL FUNDS</b>			
<b>FUND AFFECTED</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
<b>Local Government</b>	<b>(Unknown)</b>	<b>(Unknown)</b>	<b>(Unknown)</b>

## FISCAL ANALYSIS

### ASSUMPTION

#### §8.860 - Environmental sustainable construction

Officials from the **Department of Corrections** and the **Department of Natural Resources** assume this section of the proposal will have no fiscal impact on their respective agencies.

Officials from the **Missouri Department of Transportation** state there is no impact to their agency, as no new building construction is planned.

Officials from the **Department of Conservation** state there will be an unknown fiscal impact to their agency because of increased costs for obtaining building certification, but the amount is unknown because of unknown applicability to unknown building projects in the future.

Officials from the **Office of Administration (COA) - Division of Budget and Planning (BAP)** state the proposal should not result in additional costs or savings to the Division of Budget and Planning. They defer to the Office of Administration - Division of Facilities Management, Design and Construction for a fiscal impact.

Officials from the **COA - Division of Facilities Management, Design, and Construction (FMDC)** assume this bill would have an unknown fiscal effect on FMDC with major financial impacts in design, construction, operations, and the costs associated with certifying the initial project. There would be future ongoing costs associated with maintaining the certification, and the costs associated with outsourcing or staffing needed to meet the commissioning requirements to include the measurement and verification requirements.

To get an estimated cost factor FMDC reviewed the construction of the Lewis and Clark State Office Building, which was USGBC (United States Green Building Council) certified at the platinum level. The Lewis and Clark Building is a 120,000 square foot facility, constructed at a cost of \$18,573,497 or \$155 per sq. ft. Normal costs for a building of this size at that time would have been approximately \$125 per sq. ft. or roughly a 24% increase. Other costs of \$2,381,227 included design contract costs, commissioning agent costs and a special \$60,000 fee for LEED certification.

ASSUMPTION (continued)

Given that the legislation is seeking "silver" level and that "platinum" level was achieved, FMDC estimates a 15% increased in initial construction cost (platinum seems to be at 29%). It appears that the legislation requires all significant projects (new construction and renovation) to be addressed with these requirements.

A payback or life-cycle analysis should determine if the investment in the higher quality construction is justified. The impacts are determined by the scope of work of construction and renovations requirements.

Additional FTEs will be needed to review the various aspects of the silver-level certification, monitoring costs of all buildings and to comply with the requirements of a five, ten and fifteen year third party commissioning. Some of these FTEs may need to be LEED accredited when performing designs affected by this bill this will need to be addressed in the qualification of the additional FTEs. The position(s) title should include Professional Engineer (civil, electrical, mechanical, structural engineering or engineering management).

FTE needs have not been determined, depending on the scope of work of the initial study to the actual project workload to the certification to the monitoring and evaluation up to fifteen years after the project.

Due to the current economic situation, **Oversight** is presenting costs as \$0 or Unknown exceeding \$1 million.

Officials from the **University of Missouri System (UM)** state the fiscal impact to the university is estimated at \$2,000,000 in construction costs and \$500,000/year in operating costs.

The cost for Green Globes is similar to LEEDS Silver certification which is reported to add from 2-5% to the total project cost. UM already incorporates the latest technologies to reduce energy cost and reduce overall maintenance/operational cost. UM estimates mandating LEEDS Silver Certification will cost their projects at least \$2,000,000 annually, resulting in losing critical program space and features.

Green Globes also requires third party building commissioning at 5 years, 10 years, and 15 years that will cost \$50,000 to \$100,000 for each building depending on the building type. It will be significantly more for a Life Sciences type of building.

Officials from **Linn State Technical College** and **Missouri Southern State University** state the fiscal impact on their respective institutions would be unknown.

LMD:LR:OD

ASSUMPTION (continued)

Officials at **Missouri Western State University** assume that this proposed legislation would have a fiscal impact on their university. To go through the certification process, etc., they could see at least an additional 10% in costs for new construction. Meeting the standards both for new construction and renovation would be cost prohibitive in the current economic environment.

Officials from the **Kansas City Metropolitan Community College** indicated this proposal will have no fiscal impact on their college.

Officials from the **University of Central Missouri (UCM)** estimate that this section of the proposal could cause UCM to incur substantially increased costs, potentially millions of dollars, in bringing existing buildings and any future renovation or construction project into compliance with referenced green standards.

As an example, UCM's last building project bid at \$1,744,705 when UCM incorporated desired green elements. The high bid cost caused the University to remove some, though not all, Leed Certification (green) elements, reducing the price by \$438,118.

Officials from **Missouri State University** indicated no fiscal impact associated with this proposed legislation.

In response to a similar proposal from 2011 (SB 22 - FN 252-01), the following responses were received:

Officials at the **Northwest Missouri State University** assumed no impact at this time as no capital projects are planned in the near future. However, if projects are added this would add as much as 10% to the cost of the project.

Officials at the **Truman State University** were unable to determine a cost for this proposal.

Officials at the **Lincoln University** assumed this legislation would have an impact on major construction projects at the University. It will require the University to meet a minimum of a silver LEED rating for new construction or substantial renovation projects, or two Globes using the Green Globes Rating System.

There is a lot of paperwork to certify buildings under LEED, which is expensive both on the front end with the design fees and then secondly with the construction. The overall philosophy is that by going LEED, energy costs will decrease using efficient products and the construction work

ASSUMPTION (continued)

will be done in an environmentally friendly way. The legislation also mentions developing and implementing a process to monitor and evaluate energy and environmental benefits associated with each major project one year after occupancy and continue for fifteen years thereafter. This monitoring/evaluation work will cost as well each year because it will probably need to be done by some kind of mechanical commissioning company.

It is difficult to determine the annual cost this legislation will have. LEED projects can perhaps drive construction costs up 10-20% or higher, until the practice becomes the norm for all projects.

For fiscal note purposes only, **Oversight** is including additional construction costs resulting from LEED Silver certification requirements for colleges and universities in the General Revenue Fund. **Oversight** is ranging the costs from \$0 to Unknown, depending on funding approved by the Legislature.

§160.2150 - School energy audits

Officials from the **Office of State Treasurer** state this proposal will have no fiscal impact on their agency.

Officials from the **Office of Administration - Division of Budget and Planning (BAP)** state this proposed legislation should not result in additional costs or savings to BAP. BAP defers to the Office of Administration - Division of Facilities Management, Design and Construction for a fiscal impact.

Officials from the **Department of Natural Resources (DNR)** state that no duties or responsibilities are assigned to the DNR Division of Energy (DE) as a result of this proposed legislation. The DE may be requested to assist in the project by the Office of Administration, Department of Elementary and Secondary Education or local school districts impacted by the proposal since the agency manages the Schools and Local Government energy loan program. DNR would not anticipate a direct fiscal impact to the DE.

ASSUMPTION (continued)

Officials from the **Department of Elementary and Secondary Education (DESE)** provided the following assumptions regarding this proposed legislation:

Per the 2010-2011 Missouri School Directory, the number of school buildings is tabulated below:

High Schools	608
Jr. High Schools	57
Middle Schools	285
Elementary Schools	<u>1,241</u>
	2,191

This proposal would require 20% of elementary schools and high schools in the state to have a professional energy audit each year with the Office of Administration to determine (in consultation with the school districts) which schools are to perform the audits for a particular year.

2,191 buildings      x      20%      =      438.2 buildings to receive energy audits each year

The proposal further indicates that years in which schools do not have a professional audit, the school shall conduct a self-audit. DESE cannot estimate the cost of a professional energy audit; nor can it estimate the cost of a self-audit. DESE assumes this proposal will result in significant unknown costs for the state and the potential for unknown costs to the school districts.

Officials from the **Office of Administration - Division of Facilities Management, Design and Construction (FMDC)** state that additional staff will be needed to monitor the audits and to compile the data. FMDC will need two Energy FTE and one Accounting FTE.

Officials from the **Mexico School District** state that although a specific amount of fiscal impact cannot be determined at this point in time, it will cause extra work and additional costs to monitor energy output, conduct energy audits and report those results to the State Office of Administration.

Officials from the **Parkway School District** state it does not appear their district would be required to have a professional audit if funding was not available. In that case, while there would be some cost for the self-audits, it would not be prohibitive.

Parkway has 18 elementary schools and 4 comprehensive high schools.

ASSUMPTION (continued)

Officials from the **Special School District of St Louis County** estimate that this proposed legislation would cost their district about \$90,000 - \$100,000 to pay for energy audits.

**Oversight** assumes the cost of energy audits could exceed the potential reimbursements provided for in this proposal. **Oversight** notes that the Office of Administration may waive the professional audit requirements if funding is unavailable from any source. It is unknown how many schools would request a waiver or how many waivers would be granted.

§386.890 - Net Metering and Easy Connection Act

Officials from the **Joint Committee on Administrative Rules (JCAR)** stated this proposed legislation is not anticipated to cause a fiscal impact to JCAR beyond its current appropriation.

Officials from the **Office of Attorney General** assume that any potential costs arising from this proposal can be absorbed with existing resources.

Officials from the **Department of Natural Resources** would not anticipate a direct fiscal impact from this proposal.

Officials from the **Department of Economic Development - Public Service Commission** and **Office of Public Counsel** anticipate no fiscal impact as a result of the proposed legislation.

According to officials from the **Office of Secretary of State (SOS)**, many bills considered by the General Assembly include provisions allowing or requiring agencies to submit rules and regulations to implement the proposal. The SOS is provided with core funding to handle a certain amount of normal activity resulting from each year's legislative session. The fiscal impact for this fiscal note to the SOS for Administrative Rules is less than \$2,500.

**Oversight** assumes the SOS could absorb the costs of printing and distributing regulations related to this proposal with core funding. If multiple bills pass which require the printing and distribution of regulations at substantial costs, the SOS could request funding through the appropriation process. Any decisions to raise fees to defray costs would likely be made in subsequent fiscal years.



ASSUMPTION (continued)

**This proposed legislation was sent to the following school districts, none of which responded to a request for fiscal impact: Blue Springs, Branson, Fair Grove, Francis Howell, Independence, Jefferson City, Kirksville, Lee's Summit, Nixa, Raytown, Sedalia, Sikeston, Silex, Spickard, Springfield, St Charles, St Joseph, St Louis City, Sullivan, Center, Harrisonville, North Kansas City, Raytown-Peculiar.**

<u>FISCAL IMPACT - State Government</u>	FY 2013 (10 Mo.)	FY 2014	FY 2015
<b>GENERAL REVENUE</b>			
<u>Cost - COA-FMDC - Increase in personnel and construction costs</u> (§8.860)	\$0 or (Unknown)	\$0 or (Unknown exceeding \$1,000,000)	\$0 or (Unknown exceeding \$1,000,000)
<u>Cost - Colleges/Universities - LEED Silver certification and increases in construction costs</u> (§8.860)	(\$0 to Unknown)	(\$0 to Unknown)	(\$0 to Unknown)
<u>Cost - Office of Administration -FMDC</u>			
Personal Services (3 FTE)	(\$117,230)	(\$142,083)	(\$143,504)
Fringe Benefits	(\$62,062)	(\$75,219)	(\$75,971)
Equipment and Expense	<u>(\$7,500)</u>	<u>(\$9,225)</u>	<u>(\$9,456)</u>
Total OA-FMDC Cost (§160.2150)	(\$186,792)	(\$226,527)	(\$228,931)
<u>Cost - Energy Audit Reimbursements</u> (§160.2150)	<u>(Unknown)</u>	<u>(Unknown)</u>	<u>(Unknown)</u>
<b>ESTIMATED NET EFFECT ON GENERAL REVENUE</b>		<b><u>(\$226,527 to Unknown exceeding \$1,000,000)</u></b>	<b><u>(\$228,931 to Unknown exceeding \$1,000,000)</u></b>
<b>ESTIMATED NET EFFECT ON GENERAL REVENUE FTE</b> (§160.2150)	3 FTE	3 FTE	3 FTE

<u>FISCAL IMPACT - State Government</u>	FY 2013 (10 Mo.)	FY 2014	FY 2015
<b>ENERGY AUDIT FUND</b>			
<u>Transfer In</u> - General Revenue (§160.2150.3)	Unknown	Unknown	Unknown
<u>Disbursements</u> - Schools - Energy audit expenses (§160.2150.2)	<u>(Unknown)</u>	<u>(Unknown)</u>	<u>(Unknown)</u>
<b>ESTIMATED NET EFFECT ON ENERGY AUDIT FUND</b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>

<u>FISCAL IMPACT - Local Government</u>	FY 2013 (10 Mo.)	FY 2014	FY 2015
<b>LOCAL POLITICAL SUBDIVISIONS</b>			
<u>Reimbursements</u> - Schools - Energy audit expenses (§160.2150.2)	Unknown	Unknown	Unknown
<u>Cost</u> - Schools - Energy audits (§160.2150)	<u>(Unknown)</u>	<u>(Unknown)</u>	<u>(Unknown)</u>
<b>ESTIMATED NET EFFECT ON LOCAL POLITICAL SUBDIVISIONS</b>	<b><u>(Unknown)</u></b>	<b><u>(Unknown)</u></b>	<b><u>(Unknown)</u></b>

FISCAL IMPACT - Small Business

This proposed legislation could have a positive fiscal impact on small businesses performing energy audits. (§160.2150)

## FISCAL DESCRIPTION

### §8.860 - Environmental sustainable construction

This section of the proposed legislation establishes requirements for environmentally sustainable construction for state-funded buildings. In its main provisions, the proposal:

- (1) Requires all major state-funded facility projects to be designed, constructed, and at least certified as receiving two globes using the Green Globes Rating System or the silver standard as established by Leadership in Energy and Environmental Design (LEED);
- (2) Defines “major facility project” as a state-funded new construction project with more than 5,000 square footage, a renovation project involving more than 50% of the square footage or occupancy displacement, or a commercial interior fit-out project with more than 7,000 square feet of leasable area;
- (3) Exempts a correctional facility constructed for the department of Corrections or Mental Health and certain buildings that do not have air conditioning;
- (4) Specifies that a project certified as receiving two globes must earn at least 20% of the available points for energy consumption and a project certified as meeting the LEED Silver standard must reduce energy use by 24% over certain professional standards for new buildings and 20% for existing buildings. The Office of Administration may waive these requirements if costs to meet these requirements are not economically feasible;
- (5) Allows the Office of Administration to petition the General Assembly to require all major facility projects to be certified to a high-performance building rating system standard in addition to or in lieu of the systems in these provisions. However, any alternate rating system adopted by the General Assembly cannot be less stringent than the systems in the provisions of the bill;
- (6) Requires all major facility projects which were certified at the LEED Silver or two globes standard or higher to be inspected by a third-party commissioning agent and requires the agent to report his or her findings to the Office of Administration and the department or departments occupying the facility;
- (7) Requires the Office of Administration to develop and implement a process to monitor and evaluate the energy and environmental benefits of each project;

FISCAL DESCRIPTION (continued)

- (8) Requires all qualified existing facilities to meet the energy performance goals of the Energy Star Program and try to earn an energy star rating of 70 within certain periods of time as specified in the bill; and
- (9) Requires the Office of Administration to submit a report regarding major facility projects and Energy Star data of qualified existing buildings to the House of Representatives and the Senate committees on energy and environment.

§160.2150 - School energy audits

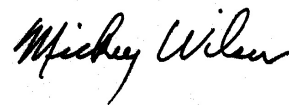
This section of the proposed legislation requires all public elementary and high schools to conduct an energy audit and report the results to the Office of Administration. Each year 20% of the schools as determined by the Office of Administration must have a professional audit performed.

Years in which a school is not required to have a professional audit, it must conduct a self audit using programs offered by Energy Star via its Internet website.

This legislation is not federally mandated, would not duplicate any other program and would not require additional capital improvements or rental space.

SOURCES OF INFORMATION

Office of Attorney General  
Department of Economic Development  
    Public Service Commission  
    Office of Public Counsel  
Joint Committee on Administrative Rules  
Office of Secretary of State  
    Administrative Rules Division  
Department of Elementary and Secondary Education  
Department of Natural Resources  
Office of Administration  
    Division of Budget and Planning  
    Division of Facilities Management, Design and Construction  
Office of State Treasurer  
Department of Corrections  
Department of Transportation  
Department of Conservation  
School Districts  
    Mexico  
    Parkway  
    Special School District of St Louis County  
Colleges and Universities  
    Lincoln University  
    Missouri State University  
    Truman State University  
    University of Missouri System  
    Missouri Southern State University  
    Missouri Western State University  
    Kansas City Metropolitan Community College  
    Linn State Technical College  
    University of Central Missouri



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