

COMMITTEE ON LEGISLATIVE RESEARCH
OVERSIGHT DIVISION

FISCAL NOTE

L.R. No.: 1252-01
Bill No.: HB 502
Subject: Construction and Building Codes; Environmental Protection
Type: Original
Date: April 16, 2013

Bill Summary: This proposal establishes requirements for environmentally sustainable construction for certain state funded buildings.

FISCAL SUMMARY

ESTIMATED NET EFFECT ON GENERAL REVENUE FUND			
FUND AFFECTED	FY 2014	FY 2015	FY 2016
General Revenue	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)
Total Estimated Net Effect on General Revenue Fund	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)

ESTIMATED NET EFFECT ON OTHER STATE FUNDS			
FUND AFFECTED	FY 2014	FY 2015	FY 2016
Total Estimated Net Effect on <u>Other</u> State Funds	\$0	\$0	\$0

Numbers within parentheses: () indicate costs or losses.
This fiscal note contains 9 pages.

ESTIMATED NET EFFECT ON FEDERAL FUNDS			
FUND AFFECTED	FY 2014	FY 2015	FY 2016
Total Estimated Net Effect on <u>All</u> Federal Funds	\$0	\$0	\$0

ESTIMATED NET EFFECT ON FULL TIME EQUIVALENT (FTE)			
FUND AFFECTED	FY 2014	FY 2015	FY 2016
Total Estimated Net Effect on FTE	0	0	0

☐ 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).

ESTIMATED NET EFFECT ON LOCAL FUNDS			
FUND AFFECTED	FY 2014	FY 2015	FY 2016
Local Government	\$0	\$0	\$0

FISCAL ANALYSIS

ASSUMPTION

Officials at the **Office of Administration - 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.

FMDC estimates a 15% increase in construction cost to achieve USGBC "silver" certification (gold and platinum ranges between 20% and 30%). 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 FTE 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 FTE 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 FTE. 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 greater than \$100,000.

Officials at the **Department of Mental Health** defers to the Office of Administration - Division of Facilities Management, Design and Construction.

Officials at the **Department of Conservation, Department of Corrections, Department of Natural Resources, Joint Committee on Administrative Rules, Missouri Department of Transportation, Office of Administration - Budget and Planning** each assume there is no

ASSUMPTION (continued)

fiscal impact to their organization from this proposal.

Officials at the **University of Missouri** assume 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. The University already incorporates the latest technologies to reduce energy cost and reduce overall maintenance/operational cost. We estimate mandating LEEDS Silver Certification will cost our projects at least \$2,000,000 annually, resulting in losing critical program space and features.

Green Globes also requires 3rd Party building commissioning at 5 yrs, 10 yrs, and 15yrs that will cost \$50,000 to \$100,000 for each building depending on the building type. For a Life Sciences type of building it will be significantly more.

Officials at the **University of Central Missouri** assume a 5% utility savings per fiscal year could be anticipated on any renovation project meeting certain energy efficiency performance criteria. A 10% utility savings would likely be possible for a new building meeting "Globes" energy efficiency performance criteria.

However, there would be increased project costs of 7% - 20% plus 3% per each required inspection/commissioning, plus ongoing additional costs for service contracts to maintain equipment with factory trained technicians.

The costs incurred to obtain points through GBI's green globes rating system for new construction and renovation projects are broken down into soft and hard costs. The soft costs include the additional design of "Green Globe Elements," commissioning, documentation and energy modeling. The total soft costs could increase and range from 2% to 5% of total construction cost. Hard costs include the "greening elements" incorporated into the construction that improve the building and system efficiencies and/or reduce environmental impacts. The hard costs added to the overall construction costs required to obtain "Green Globe Elements" could range from 5% to 15%. The total increase to the overall project cost to obtain "Green Globe Elements," including both soft and hard costs, could range from 7% to 20%. Additionally, the requirement to add third party commissioning in the fifth, tenth, and fifteen year following certification could cost 3% of total construction cost for each commissioning year, or an estimated total cost of \$90,000.

ASSUMPTION (continued)

Officials at the **Lincoln University** assume savings are not anticipated for construction costs. Energy/water consumption may decrease which in turn could decrease utility costs after construction. However, this proposal will have an impact on major construction projects at the University. It will require us to meet a minimum of two Globes using the Green Globes Rating System or Silver LEED. While this is a very worthwhile purpose and generally is the direction we should be headed in as related to sustainable products, "green" initiatives, and energy efficiency, to mandate this will increase the cost of construction (until it becomes the norm).

There is a lot of paperwork to certify buildings under LEED or Green Globes, 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 "green", energy costs will decrease using efficient products and the construction work will be done in an environmentally friendly way. This proposal 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. Green projects can perhaps drive construction costs up 10-20% or higher, until the practice becomes the norm for all projects.

Officials at the **Missouri State University** assume some operational savings may occur. However, the University is unable to calculate the potential savings. Estimated front end costs at time of construction would have been approximately \$1.2 million for the University. Ongoing annual costs as dictated by this proposal would be \$60,000 a year in today's dollars.

Officials at the **Metropolitan Community College** assume a significant although unknown impact on the College.

Officials at the **Missouri Western State University** assume they are unable to determine the impact. There is not enough information to determine up front costs versus the potential cost savings from energy efficiency.

Officials at the **Linn State Technical College** assume a potential unknown increased impact on the College, due to the possibility of an increase in the cost of construction on future projects.

ASSUMPTION (continued)

Officials at the **Northwest Missouri State University** responded to Oversight's request but did not indicate an impact.

Officials from the **Office of the Secretary of State (SOS)** state many bills considered by the General Assembly include provisions allowing or requiring agencies to submit rules and regulations to implement the act. 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. The SOS recognizes that this is a small amount and does not expect that additional funding would be required to meet these costs. However, the SOS also recognizes that many such bills may be passed by the General Assembly in a given year and that collectively the costs may be in excess of what the office can sustain with the core budget. Therefore, the SOS reserves the right to request funding for the cost of supporting administrative rules requirements should the need arise based on a review of the finally approved bills signed by the governor.

Oversight assumes the SOS could absorb the costs of printing and distributing regulations related to this proposal. If multiple bills pass which require the printing and distribution of regulations at substantial costs, the SOS could request funding through the appropriation process.

For fiscal note purposes only, **Oversight** is including additional construction costs resulting from this proposal's requirements for colleges and universities in the General Revenue Fund.

Oversight is ranging the costs from \$0 or Unknown greater than \$100,000, depending on funding approved by the Legislature.

<u>FISCAL IMPACT - State Government</u>	FY 2014 (10 Mo.)	FY 2015	FY 2016
GENERAL REVENUE			
<u>Costs - COA-FMDC</u>			
Increase in personnel and construction costs	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)
<u>Costs - Colleges/Universities</u>			
Increase in personnel and construction costs	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)
ESTIMATED NET EFFECT ON GENERAL REVENUE FUND	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)	\$0 or (Unknown greater than \$100,000)

<u>FISCAL IMPACT - Local Government</u>	FY 2014 (10 Mo.)	FY 2015	FY 2016
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

FISCAL IMPACT - Small Business

No direct fiscal impact to small businesses would be expected as a result of this proposal.

FISCAL DESCRIPTION

This bill establishes the requirements for environmentally sustainable construction for state-funded buildings whose construction and maintenance is regulated by the Office of Administration. In its main provisions, the bill:

- 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);

FISCAL DESCRIPTION (continued)

(2) Defines “major facility project” as a state-funded new construction project of more than 5,000 square feet, 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 the Department of 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 the requirements if the costs 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;

(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.

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

Department of Conservation
Department of Corrections
Department of Mental Health
Department of Natural Resources
Joint Committee on Administrative Rules
Lincoln University
Linn State Technical College
Metropolitan Community College
Missouri Department of Transportation
Missouri State University
Missouri Western State University
Northwest Missouri State University
Office of Administration
 Budget and Planning
 Division of Facilities Management, Design and Construction
Office of the Secretary of State
University of Central Missouri
University of Missouri



Ross Strobe
Acting Director
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