

COMMITTEE ON LEGISLATIVE RESEARCH
OVERSIGHT DIVISION

FISCAL NOTE

L.R. No.: 0252-01
Bill No.: SB 22
Subject: Administration, Office of; Construction and Building Codes; Energy;
 Environmental Protection; Public Buildings
Type: Original
Date: January 26, 2011

Bill Summary: This proposal requires newly constructed state buildings to meet certain green building standards.

FISCAL SUMMARY

ESTIMATED NET EFFECT ON GENERAL REVENUE FUND			
FUND AFFECTED	FY 2012	FY 2013	FY 2014
General Revenue	\$0 or (Unknown exceeding \$1,000,000)	\$0 or (Unknown exceeding \$1,000,000)	\$0 or (Unknown exceeding \$1,000,000)
Total Estimated Net Effect on General Revenue Fund	\$0 or (Unknown exceeding \$1,000,000)	\$0 or (Unknown exceeding \$1,000,000)	\$0 or (Unknown exceeding \$1,000,000)

ESTIMATED NET EFFECT ON OTHER STATE FUNDS			
FUND AFFECTED	FY 2012	FY 2013	FY 2014
Conservation Commission Fund	\$0 or (Unknown)	\$0 or (Unknown)	\$0 or (Unknown)
Road Fund	\$0 or (Unknown)	\$0 or (Unknown)	\$0 or (Unknown)
Total Estimated Net Effect on <u>Other</u> State Funds	\$0 or (Unknown)	\$0 or (Unknown)	\$0 or (Unknown)

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

ESTIMATED NET EFFECT ON FEDERAL FUNDS			
FUND AFFECTED	FY 2012	FY 2013	FY 2014
Total Estimated Net Effect on <u>All</u> Federal Funds	\$0	\$0	\$0

ESTIMATED NET EFFECT ON FULL TIME EQUIVALENT (FTE)			
FUND AFFECTED	FY 2012	FY 2013	FY 2014
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 2012	FY 2013	FY 2014
Local Government	\$0	\$0	\$0

FISCAL ANALYSIS

ASSUMPTION

Officials at the **Office of Administration's 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.

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.

ASSUMPTION (continued)

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

Officials at the **Missouri Department of Conservation (MDC)** assume that this legislation would be bad for MDC because restricting state buildings to two certification systems constrains the designers' ability to find creative and innovative ways to achieve the desired results while being good stewards of the tax dollars. The exact amount of the impact is unknown but would involve additional costs to MDC.

Officials at the **Missouri Department of Transportation** assume an unknown impact when they build.

Officials at the **Missouri Western State University** assume that this proposed legislation would result in added costs to the university. The design fees would be higher and there are on-going costs under the green globe process. With the average size of project at Western it would appear there would be an on-going cost of \$8 to \$10,000 per year for up to fifteen years on each project. (\$10,000 x 15 = \$150,000) The University designs to the current local codes which are at or near a LEED silver level. The added cost comes from the process to file, monitor and apply for the recognition.

Officials at the **Metropolitan Community College** assume this legislation would add 3% -5% to the cost of any construction project. The dollar amount cannot be determined but each inspection would cost between \$10,000 and \$15,000.

Officials at the **University of Missouri** assume the University has a sustainable design policy that promotes compliance with LEEDS features based on lifecycle analysis but without the additional cost to pursue LEEDS certification. The cost for LEEDS Silver certification is reported to add from 2-5% to the total project cost. Mandating LEEDS Silver certification will cost the University projects at least \$2,000,000 annually, resulting in losing critical program space and features.

Officials at the **Northwest Missouri State University** assume 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** are unable to determine a cost for this proposal.

ASSUMPTION (continued)

Officials at the **Linn State Technical College** assume an unknown impact.

Officials at the **Lincoln University** assume this legislation will 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. While this is a very worthwhile purpose and generally, a direction the University 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, 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 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.

Officials at the **Missouri State University** assume this legislation requires certification by one of several agencies. It needs to be pointed out that certification cannot be assured during the design or construction of a project. Only after the facility is complete will the certifying agency either accept or deny the project and provide the certification.

This legislation impacts any new construction over 5,000 SF, or renovation of a facility that involves 50% or more of the existing square footage. Any new construction undertaken by the university is typically in excess of 5,000 SF. For a renovation project to be impacted it would have to be a significant renovation of a facility and often we do not renovate 50% of a building at one time due to existing constraints.

This proposed legislation requires a third party commissioner to be hired during the design process. This can easily add 1% to the construction costs. Registering the project with one of the certifying agencies and paying to complete all necessary paperwork can easily add another 0.5% to the construction costs. This legislation also requires a third party to revisit the facility 5,

JH:LR:OD

ASSUMPTION (continued)

10, and 15 years after the completion of the project. This could easily add several thousand dollars to the operational costs of the facility each time the review is required.

Officials at the **University of Central Missouri** assume the University has no pending construction projects. However, the University estimates that any future projects under this proposal would have a four to twelve percent increase in costs due to this proposal.

Officials at the **Department of Mental Health** defer to the Office of Administration's Facilities Management for impact.

Officials at the **Department of Corrections, Department of Natural Resources, East Central College** and the **Missouri Southern State University** assume that there is no fiscal impact from this proposal.

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 or Unknown, depending on funding approval by the Legislature.

<u>FISCAL IMPACT - State Government</u>	FY 2012 (10 Mo.)	FY 2013	FY 2014
GENERAL REVENUE			
<u>Costs - COA-FMDC</u>			
Increase in personnel and construction costs	\$0 or (Unknown exceeding \$1,000,000)	\$0 or (Unknown exceeding \$1,000,000)	\$0 or (Unknown exceeding \$1,000,000)
<u>Costs - Colleges and Universities</u>			
Increases in construction and certification costs	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>
ESTIMATED NET EFFECT ON GENERAL REVENUE	<u>\$0 or (Unknown exceeding \$1,000,000)</u>	<u>\$0 or (Unknown exceeding \$1,000,000)</u>	<u>\$0 or (Unknown exceeding \$1,000,000)</u>
CONSERVATION COMMISSION FUND			
<u>Cost - Increase in construction costs</u>	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>
ESTIMATED NET EFFECT ON CONSERVATION COMMISSION FUND	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>
ROAD FUND			
<u>Cost - Increase in construction costs</u>	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>
ESTIMATED NET EFFECT ON ROAD FUND	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>	<u>\$0 or (Unknown)</u>

<u>FISCAL IMPACT - Local Government</u>	FY 2012 (10 Mo.)	FY 2013	FY 2014
	<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

State-funded buildings over 5,000 square feet constructed after August 28, 2011 must be certified, at minimum, as meeting either the 2 Globes level under the Green Globes building rating system or the Silver level under the Leadership in Energy and Environmental Design (LEED) building rating system. The act prescribes certain points that must be earned in achieving either the 2 Globes or Silver level certification. The Office of Administration may waive the points requirements for economic feasibility reasons.

State-funded building renovation and commercial interior fit-out projects must be analyzed under one of several options, including a life cycle cost analysis comparing the costs and benefits of renovating to the 2 Globes or Silver standards, normal industry standards, or a building standard in between.

The Office of Administration may petition the General Assembly to require all state-funded building construction and renovation projects to meet a different or additional high-performance building standard, provided that such building standard is at least as stringent as the Green Globes and LEED standards.

The act requires periodic inspections of buildings built to the 2 Globes or Silver standards. The inspector must report its findings to the Office of Administration and the state agency that occupies the building. For 15 years, the Office of Administration must monitor and evaluate the energy and environmental benefits associated with each building subject to the act's requirements.

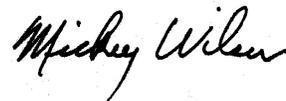
The Office of Administration must submit a report to the energy committees in the House of Representatives and the Senate regarding activities and information that result from the act's provisions.

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

JH:LR:OD

SOURCES OF INFORMATION

Department of Corrections
Department of Natural Resources
Department of Mental Health
East Central College
Lincoln University
Linn State Technical College
Metropolitan Community College
Missouri Department of Conservation
Missouri Department of Transportation
Missouri Southern State University
Missouri State University
Missouri Western State University
Northwest Missouri State University
Office of Administration
Truman State University
University of Central Missouri
University of Missouri



Mickey Wilson, CPA
Director
January 26, 2011