

COMMITTEE ON LEGISLATIVE RESEARCH  
OVERSIGHT DIVISION

**FISCAL NOTE**

L.R. No.: 4592-01  
Bill No.: SB 1100  
Subject: Administration, Office of; Construction and Building Codes; Energy; Natural Resources Department  
Type: Original  
Date: March 5, 2008

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Bill Summary: Requires newly constructed or substantially renovated state and local government buildings to meet certain green building certification requirements.

**FISCAL SUMMARY**

<b>ESTIMATED NET EFFECT ON GENERAL REVENUE FUND</b>			
<b>FUND AFFECTED</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
General Revenue	(Unknown - Will exceed \$82,606)	(Unknown - Will exceed \$91,975)	(Unknown - Will exceed \$94,735)
<b>Total Estimated Net Effect on General Revenue Fund</b>	<b>(Unknown - Will exceed \$82,606)</b>	<b>(Unknown - Will exceed \$91,975)</b>	<b>(Unknown - Will exceed \$94,735)</b>

Numbers within parentheses: ( ) indicate costs or losses.  
This fiscal note contains 13 pages.

<b>ESTIMATED NET EFFECT ON OTHER STATE FUNDS</b>			
<b>FUND AFFECTED</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
Parks and Soils Tax Fund	(Unknown)	(Unknown)	(Unknown)
Conservation Commission Fund	(Unknown)	(Unknown)	(Unknown)
State Facility Maintenance and Operations Fund	(\$369,807)	(\$426,318)	(\$437,003)
Facility Maintenance Reserve Fund	(\$29,600,000)	(\$30,488,000)	(\$31,402,640)
DFMDC Real Estate Service	(\$420,000)	(\$420,000)	(\$420,000)
<b>Total Estimated Net Effect on <u>Other</u> State Funds</b>	<b>(Unknown - Will exceed \$30,389,807)</b>	<b>(Unknown - Will exceed \$31,334,318)</b>	<b>(Unknown - Will exceed \$32,259,643)</b>

<b>ESTIMATED NET EFFECT ON FEDERAL FUNDS</b>			
<b>FUND AFFECTED</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</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 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
General Revenue	1 FTE	1 FTE	1 FTE
State Facility Maintenance and Operations Fund	4 FTE	4 FTE	4 FTE
<b>Total Estimated Net Effect on FTE</b>	<b>5 FTE</b>	<b>5 FTE</b>	<b>5 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 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
<b>Local Government</b>	<b>(Unknown - Up to or Greater than \$12,596,250)</b>	<b>(Unknown - Up to or Greater than \$12,596,250)</b>	<b>(Unknown - Up to or Greater than \$12,596,250)</b>

## FISCAL ANALYSIS

### ASSUMPTION

Officials from the **Department of Transportation** state there will be no impact to their agency.

Officials from the **Office of Secretary of State (SOS)** assume 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 to the SOS office for Administrative Rules for this proposal is less than \$2,500. The SOS recognizes this is a small amount and does not expect additional funding would be required to meet these costs. However, SOS also recognizes that many such bills may be passed in a given year and that collectively the costs may be in excess of what the SOS can sustain with their core budget. Any additional required funding would be handled through the budget process.

Officials from the **Department of Natural Resources (DNR)** assume this proposal would authorize DNR to establish by rule the processes and systems to implement §640.158. This section requires new state facilities built after August 28, 2008, to be designed and managed to obtain a certified rating under the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. This system has been adopted by the U.S. Green Building Council and measures and evaluates the energy and environmental performance of a building.

The department would require one FTE (Energy Engineer II) to promulgate rules, provide technical information, data and support to fully implement the provisions of this bill.

The Energy Engineer II would be responsible for assisting in the development of the required rule and providing technical information, data and support to assure that the required LEED requirements are fully met by any state agency that enters into the design or construction phase of any new public structure after August 28, 2008.

The Department's Division of State Parks (DSP) has 17 buildings that are 10,000 sq. ft. or greater. Among these 17 buildings, nine are historic, one is an airplane hanger at Lake Ozark State Park and one is a facility that is leased to the Division of Youth Services, for which they're responsible for maintenance, repairs, and necessary renovations. The rest of buildings are listed as follows:

Arrow Rock - Visitor Center  
Big Lake - Motel/Conference Complex

ASSUMPTION (continued)

Watkins Mill - Visitor Center  
Babler - Visitor Center  
Montauk - Lodge/Restaurant  
Roaring River - Inn and Conference Center

It is unknown if there will be future capital improvement (CI) projects that would be at the level of "substantially renovated" as described in the proposed bill. Substantial renovation CI projects would require DSP to spend more to comply with this proposal. In the medium term, this proposal may reduce funding available for renovations since payback of energy efficiency under the terms of this proposal could take 50 years or longer.

Officials from the **Department of Conservation** state this proposed legislation would have fiscal impact on Missouri Department of Conservation (MDC) funds due to additional construction costs and the certification process for LEED. The exact amount of impact is unknown.

Officials from the **Office of Administration - Division of Facilities Management, Design and Construction (DFMDC)** state this proposal would have considerable fiscal impact on their agency. The construction cost impact in the Capital Improvement bill would increase by 4.2%-4.4%. In addition, operation costs would increase for LEED-related tasks that are above and beyond standard project requirements. To obtain a US Green Building Council's Leadership in Energy and Environmental Design (LEED) certification would require documentation to be evaluated after a facility construction or renovation/modernization projects are complete.

LEED construction costs, LEED design costs (scope of work during the design and construction stages of a project), and LEED documentation costs (those tasks associated with documenting and submitting a LEED application to the U.S. Green Building Council) for a minimum rating costs more than a conventional construction.

The Capital Improvement Budget would increase by 4.2% for modernization and 4.4% for new construction.

HB18 - FMRF (0124) biennium request is for \$169 million and an additional \$7 million would need to be added for LEED certification.

HB19 - New Construction request is for \$145.8 million and an additional \$6.4 million would need to be added for LEED certification. 37 million sq ft X \$.44 sq ft in design/documental costs of \$16,280,000. A total of \$13.4M + \$16.2M=\$29.6 cost increase in the CI budget.

ASSUMPTION (continued)

Listed below are three estimates base on \$175 per square foot for construction cost of a state-of-art building plus LEED certification cost:

Minimum 10,000 sq ft X \$175.00 = \$1.7 million plus \$77,900 (4.2% increase in construction cost and \$.44 increase per square foot in design/documental costs) Total estimate = \$1,827,900.

Building a 50,000 sq ft X \$175.00 = \$8.7 million plus \$389,500 (4.2% increase in construction cost and \$.44 increase per square foot in design/documental costs) Total estimate = \$9,139,500

Building a 100,000 sq ft X \$175.00 = \$17.5 million plus \$779,000 (4.2% increase in construction cost and \$.44 increase per square foot in design/documental costs) Total estimate = \$18,279,000.

New green construction cost are being estimated at \$250.00 per square foot, which puts the estimate even higher than the 4.2% - 4.4% based on GSA LEED Cost Study.

DFMDC HB-5 Operating budget (SFMOF-State Facility Maintenance and Operations Fund) would increase based on staffing needs and EE needs. The Design Engineer III position must be register as a Professional Engineer (civil, electrical, mechanical, structural engineering or engineering management). DFMDC would need four Design Engineer III positions to implement this proposed legislation.

DFMDC HB-13 Real Estate Services \$23.7M annual rent of space (sq ft over 10,000) X 4.2% for modernization and \$.44 increase per 2.5M square foot (sq ft over 10,000) in design/document costs. A total of \$2.1M cost increase in the HB 13 or \$420,000 each year for the next five years until all leases would comply.

Officials from the **Office of Secretary of State - Missouri State Library** assume that local public library districts engaging in new construction or extensive remodeling would be required to register their projects with the U.S. Green Building Council. The fixed rate cost for combined design and construction review for new construction for non-members is \$2,250 per project under 50,000 square feet. Estimating that an average of 25 public library districts per year would engage in construction affected by this proposed legislation leads to an annual cumulative cost estimate of \$56,520. The cost to an individual library building over 50,000 square feet would be \$0.045 per square foot. This would apply to only a few libraries in Missouri and has thus not been factored in. The fee schedule is from the U.S. Green Building Council's website.

Officials from **St Louis County** expect costs for new capital building projects to increase by 10% due to increased documentation required for certification, limited certified designers

ASSUMPTION (continued)

available to bid on the Public projects, and higher initial cost for construction of LEED items. The estimated certification application/ documentation costs of \$40,000 per building/renovation project for an average of 6 major projects per year will yield a cost increase to the County of \$240,000 per year. Since the Bill directs governments to strive to meet the highest LEED rating, construction cost can increase by up to 30%. For a \$40,000,000 capital budget year this proposal could cost the County \$12,000,000 and cause needed projects to be deferred. Appeals for exemptions could add another \$20,000 to \$100,000 cost per year to the County. Since the County is usually tasked with administration, an additional operating cost of \$200,000 is estimated for hiring certified staff and training code officials. There would be unknown amount of long-term savings from lower operational costs which would not be realized after the initial up-front construction/renovation costs.

Officials from **Clinton County** state that building costs will be higher, but that savings should result from energy friendly construction.

Officials from the **City of Centralia** state they have no construction planned.

Officials from **Lincoln University** anticipate moderate fiscal impact in the form of increased costs associated with meeting LEEDS certification requirements.

Officials from the **University of Central Missouri (UCM)** estimate that it would cost an average of 2% in building costs for Silver LEED certification. To arrive at potential cost, it was determined that if UCM were to acquire \$5 million in capital costs for a new building, Silver LEED certification for that building is projected to add at least \$100,000 to building costs. Savings will vary with the level of LEED certification achieved. An minimum of 5% utility savings per fiscal year could be realized on any renovation project meeting the Silver standards. A 10% utility savings would likely be possible for a new building with a Silver rating.

Officials from **Linn State Technical College** state their institution would expect to incur significant increased construction costs in order to meet LEED certification standards, although they would expect to recover a significant portion of those costs through the resulting lower life cycle costs. The exact fiscal impact is unknown.

Officials from **Missouri State University** assume there is a cost factor to achieve the certifications required by this proposal. The definition of hard costs that would be added is difficult to estimate, but the cost of construction projects could easily increase by 10%.

ASSUMPTION (continued)

Officials from the **Kansas City Metropolitan Community College** do not anticipate significant fiscal impact.

Officials from the **Poplar Bluff School District** did not anticipate direct fiscal impact.

Officials from the **Parkway School District** estimate the cost of compliance with this proposed legislation is \$375,000 annually for their district.

Oversight assumes there are additional unknown costs to entities that did not respond to a request for fiscal note. Oversight also assumes there will be savings resulting from renovation and construction that meets certain green building certification requirements but those savings will not be realized until future years after construction is complete. For fiscal note purposes, those unknown savings are not reflected in the fiscal note.

<u>FISCAL IMPACT - State Government</u>	FY 2009 (10 Mo.)	FY 2010	FY 2011
<b>GENERAL REVENUE</b>			
<u>Cost - Department of Natural Resources</u>			
Personal Services (1 FTE)	(\$48,225)	(\$59,606)	(\$61,394)
Fringe Benefits	(\$21,325)	(\$26,358)	(\$27,148)
Equipment and Expense	<u>(\$13,056)</u>	<u>(\$6,011)</u>	<u>(\$6,193)</u>
Total DNR Personal Services	(\$82,606)	(\$91,975)	(\$94,735)
 FTE Change DNR	 1 FTE	 1 FTE	 1 FTE
 <u>Cost - Universities - Building renovation and construction</u>	 <u>(Unknown)</u>	 <u>(Unknown)</u>	 <u>(Unknown)</u>
 <b>ESTIMATED NET EFFECT ON GENERAL REVENUE</b>	 <b><u>(Unknown - Will exceed \$82,606)</u></b>	 <b><u>(Unknown - Will exceed \$91,975)</u></b>	 <b><u>(Unknown - Will exceed \$94,735)</u></b>



<u>FISCAL IMPACT - State Government</u>	FY 2009 (10 Mo.)	FY 2010	FY 2011
<b>PARKS AND SOILS TAX FUND</b>			
<u>Cost - Capital Improvements</u>	<u>(Unknown)</u>	<u>(Unknown)</u>	<u>(Unknown)</u>
<b>ESTIMATED NET EFFECT ON PARKS AND SOILS TAX FUND</b>	<b><u>(Unknown)</u></b>	<b><u>(Unknown)</u></b>	<b><u>(Unknown)</u></b>
<b>CONSERVATION COMMISSION FUND</b>			
<u>Cost - Capital Improvements</u>	<u>(Unknown)</u>	<u>(Unknown)</u>	<u>(Unknown)</u>
<b>ESTIMATED NET EFFECT ON CONSERVATION COMMISSION FUND</b>	<b><u>(Unknown)</u></b>	<b><u>(Unknown)</u></b>	<b><u>(Unknown)</u></b>
<b>STATE FACILITY MAINTENANCE AND OPERATIONS FUND (SFMOF)</b>			
<u>Cost - SFMOF</u>			
Personal Services (4 FTE)	(\$237,308)	(\$291,889)	(\$299,186)
Fringe Benefits	(\$104,938)	(\$129,073)	(\$132,300)
Equipment and Expense	<u>(\$27,561)</u>	<u>(\$5,356)</u>	<u>(\$5,517)</u>
Total Personal Services - SFMOF	(\$369,807)	(\$426,318)	(\$437,003)
<b>ESTIMATED NET EFFECT ON STATE FACILITY MAINTENANCE AND OPERATIONS FUND</b>	<b><u>(\$369,807)</u></b>	<b><u>(\$426,318)</u></b>	<b><u>(\$437,003)</u></b>
FTE CHANGE - SFMOF	4 FTE	4 FTE	4 FTE

<u>FISCAL IMPACT - State Government</u>	FY 2009 (10 Mo.)	FY 2010	FY 2011
<b>FACILITY MAINTENANCE RESERVE FUND (FMRF)</b>			
<u>Cost -FMRF - Capital Improvements</u>	<u>(\$29,600,000)</u>	<u>(\$30,488,000)</u>	<u>(\$31,402,640)</u>
<b>ESTIMATED NET EFFECT ON STATE FACILITY MAINTENANCE AND OPERATIONS FUND</b>	<b><u>(\$29,600,000)</u></b>	<b><u>(\$30,488,000)</u></b>	<b><u>(\$31,402,640)</u></b>
<b>DFMDC REAL ESTATE SERVICES</b>			
<u>Cost - Real Estate Services - Renovation Costs</u>	<u>(\$420,000)</u>	<u>(\$420,000)</u>	<u>(\$420,000)</u>
<b>ESTIMATED NET EFFECT ON DFMDC REAL ESTATE SERVICES</b>	<b><u>(\$420,000)</u></b>	<b><u>(\$420,000)</u></b>	<b><u>(\$420,000)</u></b>
NET ESTIMATED CHANGE IN FTE	5 FTE	5 FTE	5 FTE

<u>FISCAL IMPACT - Local Government</u>	FY 2009 (10 Mo.)	FY 2010	FY 2011
<b>LOCAL POLITICAL SUBDIVISIONS</b>			
<u>Cost - Missouri Public Library Districts - Capital Improvements</u>	(\$56,250)	(\$56,250)	(\$56,250)
<u>Cost - St Louis County Capital Improvements</u>	Up to (\$12,540,000)	Up to (\$12,540,000)	Up to (\$12,540,000)
<u>Cost - Cities and Counties</u>	(Unknown)	(Unknown)	(Unknown)
<u>Cost - School Districts</u>	(Unknown)	(Unknown)	(Unknown)
<u>Cost - Community Colleges</u>	<u>(Unknown)</u>	<u>(Unknown)</u>	<u>(Unknown)</u>

**ESTIMATED NET EFFECT ON  
 LOCAL POLITICAL SUBDIVISIONS** (Unknown - Up to or Greater than \$12,596,250) (Unknown - Up to or Greater than \$12,596,250) (Unknown - Up to or Greater than \$12,596,250)

FISCAL IMPACT - Small Business

The proposal may provide greater economic stimulation for the sales and installation of renewable or energy efficiency products in state buildings.

FISCAL DESCRIPTION

This proposed legislation requires that after August 28, 2008, any state or local government building over 10,000 gross square feet that is constructed or substantially renovated shall obtain certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

The Commissioner of the Office of Administration may exempt any building from the requirements of the act when it is estimated that the cost of compliance sufficiently exceeds the building's life cycle cost savings. Any such exempted building shall comply with the LEED certification requirements as much as possible, but not to exceed the life cycle cost savings.

FISCAL DESCRIPTION (continued)

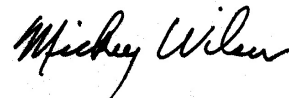
The Department of Natural Resources shall promulgate rules to implement the provisions of the act and shall develop procedures to verify compliance with the act.

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 Administration  
    Division of Facilities Management, Design and Construction  
Office of Secretary of State  
    Administrative Rules Division  
    Missouri State Library  
Department of Conservation

Department of Transportation  
Department of Natural Resources  
St Louis County  
Clinton County  
City of Centralia  
University of Central Missouri  
Lincoln University  
Linn State Technical College  
Missouri State University  
Metropolitan Community College of Kansas City  
Poplar Bluff School District  
Parkway School District



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March 5, 2008

L.R. No. 4592-01  
Bill No. SB 1100  
Page 13 of 13  
March 5, 2008

LMD:LR:OD (12/02)