

MEMORANDUM

TO: County Council

FROM: Kathleen Boucher, Senior Legislative Attorney
Michael Faden, Senior Legislative Attorney

SUBJECT: Action: Bill 17-06, Buildings – Energy Efficiency and Environmental Design

Transportation and Environment Committee recommendation: enact with amendments.

The attached Committee redraft on ©1-13 reflects the amendments approved at Transportation and Environment Committee worksessions held on October 12, November 9, and November 27. This draft was the result of extensive consultations with County government, Housing Opportunities Commission (HOC), Planning Board, Montgomery County Public Schools, and Montgomery College staff, as well as wide-ranging input from outside stakeholders. (Needless to say, not all parties endorse every line of this draft.) For more complete background on this bill and “green buildings” issues generally, Councilmembers should consult the October 12 Committee packet.

Summary The Committee redraft would:

- require County-built or -funded non-residential or multi-family residential buildings to achieve a LEED silver rating (33-38 points on the LEED rating scale), or its equivalent as defined by County regulations, rather than 20 LEED points as originally proposed;
- require private non-residential or multi-family residential buildings to achieve a LEED certified rating (26-32 points on the LEED rating scale), or its equivalent;
- define which buildings are covered, including certain large additions and renovations;
- avoid the legal issues (anti-trust, delegation of legislative authority) raised regarding the original bill by allowing the Department of Permitting Services (DPS) to adopt equivalent standards to LEED and accept verification of compliance by other qualified persons and organizations;
- delete references to subdivision and site plans, so the “green buildings” requirement triggers only at the building permit stage, with review of compliance before a use and occupancy permit is issued;

- authorize DPS by regulation to adopt standards for waivers when compliance is impractical or unduly burdensome and a waiver of the law's requirements would serve the public interest ; and
- set the bill's effective date for private buildings at one year after the implementing regulations take effect, but not later than September 1, 2008, apply the law to public buildings with design funding in the FY08 or any later Capital Improvements Program, and direct the Executive to submit the initial regulations for Council review by July 15, 2007.

This redraft does not include any property tax credit because Council staff concluded that the title and public hearing advertisement for this bill were not broad enough to support that kind of amendment in that they didn't specifically mention property tax credits or amending the County tax law. Pending Bill 37-06, which has been assigned to the Management and Fiscal Policy Committee, would authorize such a credit.

Significant changes from previous draft The most important amendments that the Committee approved at its last worksession on November 27 are:

- The definition of *County building* on ©3-4, lines 25-28, which was taken from the similar definition in County Code §8-14A, the 1985 law that requires County-funded buildings to meet certain energy performance standards, now specifies that for the building to be considered a County building for this purpose, the County must fund at least 30% of the cost of construction or modification.
- Under the definition of *LEED rating system* on ©5, lines 67-68, the implementing regulations would specify which version of the LEED ratings, or their equivalent, would apply to a particular building type.
- Under the definition of *Extensively modified* on ©4, lines 32-37, the only building renovation or reconstruction that would be subject to the law's requirements would be those structural modifications which alter more than 50% of the building's floor area.
- The definition of *Newly constructed* was added on ©5, lines 76-79, to clarify that the "green buildings" requirements would apply to an addition to an existing building. However, under new subsection 8-49(c) on ©8, lines 138-143, an addition to a building built before this law took effect would be covered only if the addition would double the building's footprint and add at least 10,000 square feet.
- The approval provisions on ©7-8, lines 117-137, were redrafted to clarify that DPS itself could verify compliance with any applicable standard. Also, the implementing regulations could further specify who would be "a qualified person approved by the Director", which could include a registered design professional acting within the scope of his or her applicable license. The regulations would further specify what degree of independence a third-party reviewer must have.

Issue: Wood products/Green Globes Representatives of wood product producers and users stressed that this bill should specify that the competing Green Globes rating system is acceptable along with the LEED rating system, and should expressly identify other sustainable forest certification programs along with the one that LEED recognizes. Because neither Council staff nor the Committee had the time to explore these issues in depth (i.e. to investigate whether Green Globes is as effective as LEED and which forest certification programs achieve the same

objectives), the Committee did not recommend any amendments. As reported by the Committee, the bill does not preclude the implementing regulations from designating Green Globes as equivalent to LEED if the reviewing agencies so recommend, but this is a factual and policy decision that the Committee agreed would be premature now. Rather, the advocates of each approach will have time to make their case, first at the Executive branch and then when the Council reviews the implementing regulations.

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Bill No. 17-06
Concerning: Buildings - Energy
Efficiency and Environmental Design
Revised: 11-27-06 Draft No. 10
Introduced: April 25, 2006
Expires: October 25, 2007
Enacted: _____
Executive: _____
Effective: _____
Sunset Date: None
Ch. _____, Laws of Mont. Co. _____

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

By: Council President Leventhal and Councilmembers Praisner and Silverman

AN ACT to:

- (1) require certain non-residential buildings and multi-family residential buildings to achieve certain standards relating to energy efficiency and environmental design;
- (2) require certain applicants for ~~[[preliminary subdivision plan approval, site plan approval, or]]~~ a building permit to submit certain plans relating to energy efficiency and environmental design to the Department of Permitting Services for approval;
- (3) require the Department of Permitting Services to ~~[[approve an]]~~ make compliance with certain energy efficiency and environmental design ~~[[plan as]]~~ standards a condition of certain building and use-and-occupancy permits;
- (4) ~~[[make certain building owners who comply with certain standards relating to energy efficiency and environmental design eligible to receive certain incentive payments;]]~~
- ~~[[5]]~~ define certain terms; and
- ~~[[6]]~~ (5) generally amend the law relating to the construction of buildings, development review, building permits, energy, and environmental design.

By amending

Montgomery County Code
Chapter 8, Buildings
Section 8-26

By adding

Montgomery County Code
Chapter 8, Buildings
Article VII, Energy Efficiency and Environmental Design

[[By amending
Montgomery County Code
Chapter 18A, Energy Policy
Section 18A-11]]

Boldface	<i>Heading or defined term.</i>
<u>Underlining</u>	<i>Added to existing law by original bill.</i>
[Single boldface brackets]	<i>Deleted from existing law by original bill.</i>
<u>Double underlining</u>	<i>Added by amendment.</i>
[[Double boldface brackets]]	<i>Deleted from existing law or the bill by amendment.</i>
* * *	<i>Existing law unaffected by bill.</i>

The County Council for Montgomery County, Maryland approves the following Act:

(2) modification, for a building that is extensively modified.

Covered building means a newly constructed or extensively modified non-residential [[building]] or multi-family residential building that [[is]] has or will have at least 10,000 square feet [[in size]] of gross floor area.

Extensively modified refers to any structural modification which alters more than 50% of the building's gross floor area, as indicated on the application for a building permit. Extensively modified does not include any modification that is limited to one or more of the following building systems: mechanical; electrical; plumbing; heating, ventilation, and air conditioning (HVAC); and fire protection.

Green [[Buildings]] Building Council means the [[United States]] U.S. Green [[Buildings]] Building Council, an organization that has developed and published the LEED rating system to measure the energy and environmental performance of a building.

[[“Green building plan” means a:

- (1) LEED scorecard showing the LEED points that a building will obtain; and
- (2) written explanation of how the building will obtain the LEED points identified in the LEED scorecard.]]

[[“Green building concept plan” means a:

- (1) LEED scorecard showing the LEED points that a building will obtain as a result of site location and stormwater management; and
- (2) written explanation of how the building will obtain the LEED points identified in the LEED scorecard.]]

LEED refers to the series of Leadership in Energy and Environmental Design (LEED) rating systems developed by the Green Building Council.

55 [[**LEED accredited professional** means an individual who has passed the
 56 LEED Professional Accreditation Exam administered by the **Green Buildings**
 57 **Council.**]]

58 [[“**LEED-NC Version 2.2**” means the Leadership in Energy and
 59 Environmental Design (LEED) Rating System for New Construction and
 60 Major Renovation, Version 2.2, developed by the **Green Buildings Council,**
 61 including the LEED-NC Version 2.2 Checklist and LEED-NC Version 2.2
 62 Reference Guide.]]

63 [[“**LEED rating system**” means:

- 64 (1) **LEED-NC Version 2.2; or**
 65 (2) if approved by the County Executive, a successor to **LEED-NC**
 66 **Version 2.2** developed by the Green Buildings Council.]]

67 **LEED rating system** means the particular **LEED** rating system that applies to
 68 a **covered building**, as specified in Executive regulations.

69 [[“**LEED scorecard**” means the checklist developed by the **Green Buildings**
 70 **Council** for the purpose of calculating a score on the **LEED rating system.**]]

71 **Multi-family residential building** means [[a building that includes 4 or more
 72 dwelling units]] any multi-family residential or mixed-use building that is
 73 taller than 4 stories. **Multi-family residential building** does not include a
 74 residential care or assisted living building which can house no more than 16
 75 occupants.

76 **Newly constructed** refers to a new stand-alone building or an addition to an
 77 existing building. A **newly constructed** building includes any addition to or
 78 enlargement of an existing building, but does not include any change to an
 79 existing portion of a building.

80 **Non-residential building** means a building not used as a dwelling [[,
 81 including:]].

- 82 [(1) office buildings, including general offices, medical offices, office
 83 parks, research parks, townhouse offices, government offices, and
 84 other buildings with similar uses;
- 85 (2) industrial buildings, including truck terminals, warehouses, light
 86 or heavy manufacturing facilities, industrial parks, and other
 87 buildings with similar uses;
- 88 (3) retail buildings, including stores, shopping centers, restaurants,
 89 vehicles sales or service facilities, banks, theaters, post offices,
 90 and other buildings with similar uses;
- 91 (4) places of worship;
- 92 (5) private elementary, secondary, or post-secondary schools; and
- 93 (6) hotels, motels, day care centers, nursing homes, recreational
 94 facilities, and other buildings with similar uses.]]

95 *Non-residential building* does not include any:

- 96 (1) day care center for 5 or fewer persons;
- 97 (2) accessory building or structure;
- 98 (3) agricultural building, stable, barn, or greenhouse;
- 99 (4) parking garage that is not heated or cooled; or
- 100 (5) other building characterized as a miscellaneous building in the
 101 edition of the ICC International Building Code designated under
 102 Section 8-13.

103 [[“**Planning Board**” means the Montgomery County Planning Board of the
 104 Maryland-National Capital Park and Planning Commission.]]

105 [[“**Preliminary subdivision plan**” means a preliminary subdivision plan
 106 approved by the **Planning Board** under Chapter 50.]]

107 [[“**Site plan**” means a site plan approved by the **Planning Board** under
 108 Division 59-D-3.]]

109 **8-49. [[LEED standard]] Standards and requirements.**

110 **[[a) Any covered building constructed in the County, including any**
 111 **covered building constructed by the County, must achieve 20 points on**
 112 **the LEED rating system.]]**

113 **[[b) The owner of any covered building that achieves at least 24 points on**
 114 **the LEED rating system is eligible for an incentive payment under the**
 115 **Clean Energy and Environmental Design Rewards Program established**
 116 **in Section 18A-11.]]**

117 **(a) Any County building must, in addition to any action required under**
 118 **Section 8-14A, achieve:**

119 **(1) a silver-level rating in the appropriate LEED rating system, as**
 120 **certified by the Green Building Council;**

121 **(2) a silver-level rating in the appropriate LEED rating system, as**
 122 **verified by the Director or a qualified person approved by the**
 123 **Director; or**

124 **(3) energy and environmental design standards that the Director**
 125 **identifies as equivalent to a silver-level rating in the appropriate**
 126 **LEED rating system, as verified by the Director or a qualified**
 127 **person approved by the Director.**

128 **(b) Any other covered building must achieve:**

129 **(1) a certified-level rating in the appropriate LEED rating system,**
 130 **as certified by the Green Building Council;**

131 **(2) a certified-level rating in the appropriate LEED rating system,**
 132 **as verified by the Director or a qualified person approved by the**
 133 **Director; or**

134 **(3) energy and environmental design standards that the Director**
 135 **identifies as equivalent to a certified-level rating in the**

136 appropriate LEED rating system, as verified by the Director or a
 137 qualified person approved by the Director.

138 (c) However, for any building for which an application for all necessary
 139 building permits was filed before September 1, 2008, any later addition
 140 to that building must achieve the requirements of subsection (a) or (b),
 141 whichever applies, only if the addition would increase the building's:

- 142 (1) land coverage by at least 100%; and
 143 (2) gross floor area by at least 10,000 square feet.

144 **[[8-50. Site plans.]]**

145 **[[a) Before the Planning Board approves a site plan for a project that**
 146 **includes a covered building, an applicant must submit the following**
 147 **documents to the Department for approval:**

- 148 (1) a Green Building Plan that shows how the building will comply
 149 with Section 8-49(a); and
 150 (2) architectural plans for the building that are certified by a LEED
 151 accredited professional as likely to yield the LEED points
 152 specified in the Green Building Plan.]]

153 **[[b) Before the Department issues a building permit for a covered building**
 154 **for which a site plan is not required, the owner of the building must**
 155 **submit the documents listed in paragraphs (a)(1) and (a)(2) to the**
 156 **Department for approval.]]**

157 **[[8-51. Preliminary subdivision plans.**

158 Before the Planning Board approves a preliminary subdivision plan, an
 159 applicant must submit a Green Building Concept Plan to the Department for
 160 approval.]]

161 **[[8-52]] 8-50. Building and use-and-occupancy permits.**

- 162 (a) The applicant for a building permit for a **covered building** must submit
 163 to the Department:
- 164 (1) design plans for the building that are likely to achieve the
 165 applicable standard under Section 8-49, as certified or otherwise
 166 approved by the Green Building Council or verified by the
 167 Director or a qualified person designated by the Department; and
- 168 (2) any other document or information the Department finds
 169 necessary to decide whether the building will achieve the
 170 applicable standard under Section 8-49.
- 171 (b) The Department must [[approve a **Green Building Plan** that complies]]
 172 require compliance with Section 8-49 [[(a)]] as a condition of any
 173 building permit issued for a **covered building**.
- 174 (c) The Department must not issue a final certificate of use and occupancy
 175 for a **covered building** unless it finds that the building has achieved the
 176 applicable standard under Section 8-49.

177 **8-51. Regulations.**

178 The County Executive must adopt regulations under method (2) to administer
 179 this Article. Those regulations must specify:

- 180 (a) the **LEED rating system**, and any equivalent energy and environmental
 181 design standard, that applies to each type of **covered building** under
 182 Section 8-49;
- 183 (b) the process to verify that a **covered building** complies with any
 184 applicable standard, including the types of persons who are qualified to
 185 verify compliance;
- 186 (c) any standards and procedures under which the Director may approve
 187 full or partial waivers of Section 8-49 when compliance would be
 188 impractical or unduly burdensome and the public interest would be

189 served by the waiver; and

- 190 (d) standards and procedures for any enforcement mechanism, such as a
 191 performance bond, that the Department finds necessary to accomplish
 192 the purposes of this Article.

193 **8-52. Report.**

194 The Director must submit to the Executive and Council, not later than March 1
 195 of each year, a list of each waiver of the requirements of this Article that the Director
 196 approved during the preceding calendar year and any condition attached to that
 197 waiver.

198 **[[Sec. 3. Section 18A-11 is amended as follows:**

199 **18A-11. Clean Energy and Environmental Design Rewards Program.**

- 200 (a) The Director of the Department of Environmental Protection must
 201 establish a Clean Energy and Environmental Design Rewards Program.
 202 The purpose of the program is to provide financial and other incentives
 203 to:

- 204 (1) consumers who choose electricity produced by renewable and
 205 environmentally preferable power sources; and
 206 (2) building owners who qualify under Section 8-49(b) for
 207 participation in the program.

- 208 (b) The Director must require each eligible [person] consumer, building
 209 owner, or supplier to submit an application for any payment under this
 210 program, and may take any other action necessary to administer this
 211 program. The Department of Finance must take actions necessary to
 212 make any payments that the Director of Environmental Protection has
 213 certified are due. The County Executive must issue regulations under
 214 Method (1) to implement this Section.

- 215 (c) The Executive must adopt program regulations that:

- 216 (1) identify the types of electricity that qualify for incentives under
217 the program;
- 218 (2) restrict or preclude the payment of incentives for purchase of
219 otherwise qualified electricity that a consumer or supplier is
220 required to buy or produce to meet certain federal or state
221 requirements;
- 222 (3) specify the process to apply for, certify, and receive an award;
223 and
- 224 (4) include any additional program criteria, standards, and
225 procedures that are consistent with the County's energy and
226 environmental policy, which among other things may restrict the
227 location or air shed where any qualified electricity is produced.
- 228 (d) The County Council must establish by resolution the maximum amount
229 of any incentive offered and the time period during which the incentive
230 will be offered. The maximum incentive may be calculated by total
231 payments, payment per quantity of electricity bought, or any other
232 reasonable measurement.
- 233 (e) Any incentive payment to individual applicants may be paid on a fiscal
234 year or calendar year basis, or at any other convenient time.
- 235 (f) A person who submits a false or fraudulent application, or withholds
236 material information to obtain a payment under this Section, has
237 committed a Class A violation. In addition, the person must repay the
238 County for all amounts improperly paid, and all accrued interest and
239 penalties that would apply to those amounts, as if they were overdue
240 taxes. A person who violates this Section is liable for all court costs and
241 expenses of the County in any civil action brought by the County to
242 recover any payments, interest, or penalty. The County may collect any

243 amount due, and otherwise enforce this Section, by any appropriate
 244 legal action.]]

245 **Sec. [[4]] 3. Applicability; initial regulations.**

246 (a) [[This]] Article VII of Chapter 8 of the County Code, as inserted by this
 247 Act, applies to any covered building, other than a County building, for
 248 which a [[preliminary subdivision plan application, site plan
 249 application, or]] building permit application is filed on or after [[the date
 250 the Act takes effect]] the earlier of:

251 (1) one year after the regulations submitted under subsection (c) take
 252 effect; or

253 (2) September 1, 2008.

254 (b) Article VII applies to any County building for which design funding is
 255 first included in the appropriate capital budget for fiscal year 2008 or
 256 any later fiscal year, or, if design funding is not directly included in the
 257 capital budget, for which a building permit application is filed on or
 258 after the earlier of:

259 (1) one year after the regulations submitted under subsection (c) take
 260 effect; or

261 (2) September 1, 2008.

262 However, notwithstanding Section 8-49(a), inserted by Section 1 of this
 263 Act, the Director may issue a building permit for any building for which
 264 design funding is first approved in the appropriate capital budget for
 265 fiscal year 2008 if that building achieves a certified-level rating or the
 266 equivalent, rather than a silver-level rating.

267 (c) By July 15, 2007, the County Executive must adopt, and submit to the
 268 Council under County Code Section 2A-15, regulations that specify the

269 LEED rating system or any equivalent energy and environmental
270 design standard that applies to each type of covered building.

271 *Approved:*

272

273

George L. Leventhal, President, County Council Date

274 *Approved:*

275

276

Douglas M. Duncan, County Executive Date

277 *This is a correct copy of Council action.*

278

279

Linda M. Lauer, Clerk of the Council Date



LEED-NC

LEED-NC Version 2.2 Registered Project Checklist

<< enter project name >>

<< enter city, state, other details >>

Yes ? No

Sustainable Sites 14 Points

Y	Prereq 1	Construction Activity Pollution Prevention	Required
	Credit 1	Site Selection	1
	Credit 2	Development Density & Community Connectivity	1
	Credit 3	Brownfield Redevelopment	1
	Credit 4.1	Alternative Transportation, Public Transportation Access	1
	Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	1
	Credit 4.3	Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles	1
	Credit 4.4	Alternative Transportation, Parking Capacity	1
	Credit 5.1	Site Development, Protect or Restore Habitat	1
	Credit 5.2	Site Development, Maximize Open Space	1
	Credit 6.1	Stormwater Design, Quantity Control	1
	Credit 6.2	Stormwater Design, Quality Control	1
	Credit 7.1	Heat Island Effect, Non-Roof	1
	Credit 7.2	Heat Island Effect, Roof	1
	Credit 8	Light Pollution Reduction	1

Yes ? No

Water Efficiency 5 Points

	Credit 1.1	Water Efficient Landscaping, Reduce by 50%	1
	Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	1
	Credit 2	Innovative Wastewater Technologies	1
	Credit 3.1	Water Use Reduction, 20% Reduction	1
	Credit 3.2	Water Use Reduction, 30% Reduction	1

Yes ? No

Energy & Atmosphere 17 Points

Y	Prereq 1	Fundamental Commissioning of the Building Energy Systems	Required
Y	Prereq 2	Minimum Energy Performance	Required
Y	Prereq 3	Fundamental Refrigerant Management	Required
	Credit 1	Optimize Energy Performance	1 to 10
	Credit 2	On-Site Renewable Energy	1 to 3
	Credit 3	Enhanced Commissioning	1
	Credit 4	Enhanced Refrigerant Management	1
	Credit 5	Measurement & Verification	1
	Credit 6	Green Power	1

continued...

Yes ? No

Materials & Resources 13 Points

Y									
				Prereq 1	Storage & Collection of Recyclables				Required
				Credit 1.1	Building Reuse, Maintain 75% of Existing Walls, Floors & Roof				1
				Credit 1.2	Building Reuse, Maintain 100% of Existing Walls, Floors & Roof				1
				Credit 1.3	Building Reuse, Maintain 50% of Interior Non-Structural Elements				1
				Credit 2.1	Construction Waste Management, Divert 50% from Disposal				1
				Credit 2.2	Construction Waste Management, Divert 75% from Disposal				1
				Credit 3.1	Materials Reuse, 5%				1
				Credit 3.2	Materials Reuse, 10%				1
				Credit 4.1	Recycled Content, 10% (post-consumer + 1/2 pre-consumer)				1
				Credit 4.2	Recycled Content, 20% (post-consumer + 1/2 pre-consumer)				1
				Credit 5.1	Regional Materials, 10% Extracted, Processed & Manufactured Region:				1
				Credit 5.2	Regional Materials, 20% Extracted, Processed & Manufactured Region:				1
				Credit 6	Rapidly Renewable Materials				1
				Credit 7	Certified Wood				1

Yes ? No

Indoor Environmental Quality 15 Points

Y									
				Prereq 1	Minimum IAQ Performance				Required
				Prereq 2	Environmental Tobacco Smoke (ETS) Control				Required
				Credit 1	Outdoor Air Delivery Monitoring				1
				Credit 2	Increased Ventilation				1
				Credit 3.1	Construction IAQ Management Plan, During Construction				1
				Credit 3.2	Construction IAQ Management Plan, Before Occupancy				1
				Credit 4.1	Low-Emitting Materials, Adhesives & Sealants				1
				Credit 4.2	Low-Emitting Materials, Paints & Coatings				1
				Credit 4.3	Low-Emitting Materials, Carpet Systems				1
				Credit 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products				1
				Credit 5	Indoor Chemical & Pollutant Source Control				1
				Credit 6.1	Controllability of Systems, Lighting				1
				Credit 6.2	Controllability of Systems, Thermal Comfort				1
				Credit 7.1	Thermal Comfort, Design				1
				Credit 7.2	Thermal Comfort, Verification				1
				Credit 8.1	Daylight & Views, Daylight 75% of Spaces				1
				Credit 8.2	Daylight & Views, Views for 90% of Spaces				1

Yes ? No

Innovation & Design Process 5 Points

				Credit 1.1	Innovation in Design: Provide Specific Title				1
				Credit 1.2	Innovation in Design: Provide Specific Title				1
				Credit 1.3	Innovation in Design: Provide Specific Title				1
				Credit 1.4	Innovation in Design: Provide Specific Title				1
				Credit 2	LEED® Accredited Professional				1

Yes ? No

Project Totals (pre-certification estimates) 69 Points

Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-69 points