

MEMORANDUM

February 24, 2014

TO: Transportation, Infrastructure, Energy and Environment Committee

FROM: Amanda Mihill, Legislative Attorney *Michael*
Michael Faden, Senior Legislative Attorney

SUBJECT: **Worksession:** Bill 6-14, Environmental Sustainability – Office of Sustainability - Established

Bill 6-14, Environmental Sustainability – Office of Sustainability - Established, sponsored by Councilmembers Berliner, Floreen, and Riemer, Council Vice President Leventhal, and Councilmembers Andrews, and Navarro, was introduced on January 28, 2014. A public hearing was held on February 11. At the hearing, a representative of the Executive expressed the Executive's general support for the package of environmental initiatives (©21). Council staff will transmit any specific comments on these bills from the Executive when they are received.

Bill 6-14 would create an Office of Sustainability in the Department of Environmental Protection. In 2008, the Council tasked a Sustainability Working Group with the responsibility of guiding the County's greenhouse gas reduction implementation. The Working Group has not met or produced anything in recent years.

Councilmember Berliner explained the purpose of this Bill in his January 14 memorandum describing his proposed energy/environmental package. See ©5 of Bill 4-14, T&E Item 1.

The Fiscal and Economic Impact statement for this Bill will be transmitted after March 17 (see ©20).

Issues for Committee Discussion

Should the Office of Sustainability be in the Department of Environmental Protection?

Several individuals or organizations questioned whether there should be an Office of Sustainability, and if so, if it should be in the Department of Environmental Protection. The American Institute of Architects, Potomac Valley Chapter urged that full inclusion of appropriate agencies should be mandated and because turf wars could arise, the Office should be under the

Executive. The Chamber of Commerce recommended that there should be an economic incentive to this initiative and coordination with the land use and transportation work between County government and Park and Planning. Similarly, the Maryland National Capital Building Industry Association (BIA) noted its view that sustainability includes environmental policy, business management, building technology, and land use, some of which is outside DEP's expertise. The Maryland National Capital Building Industry Association recommended the Council encourage Park and Planning to create a position of sustainability planner in that agency.

Council staff concurs that sustainability encompasses more than environmental protection and that coordination between County departments and agencies could be crucial to successful implementation of sustainability programs. Therefore, Council staff recommends language be added to Bill 6-14 requiring coordination between Executive departments and County agencies.

What quantifiable goals should be in Bill 6-14? In its testimony, the Sierra Club recommended that Bill 6-14 create quantifiable goals for greenhouse gas reduction. Council staff notes that Section 18A-14 of the County Code sets the County's goals for reducing greenhouse gas emissions at 80% by Jan 1, 2050.

How should the Office be funded? The Sierra Club noted that the Office of Sustainability had wide-ranging responsibilities and recommended the Council provide a dedicated source of funding for the Office. Funding for the Office is an important consideration. However, as noted above, the fiscal impact statement will not be transmitted until after March 17. Ultimately, however, no amendments are needed to Bill 6-14 regarding funding as that issue will be determined during the budget process.

Should the duties of the Office of Sustainability be modified?

Home Energy Score. The Sierra Club recommended that the Office of Sustainability evaluate whether home sellers should be required to provide home buyers with a Home Energy Score. The United States Department of Energy developed a metric that allows a homeowner to compare the energy performance of their home to other homes nationwide. The Home Energy Score is comprised of three parts including: 1) the Score itself, 2) facts about your home, and 3) recommended improvements to increase your Score. See ©49 for FAQs about the Home Energy Score program. In a similar vein, Michael Heavener, on behalf of Geosolar Energy, proposed legislation to require homebuilders to include an energy guide in marketing and sales material for new home sales, including annual cost to heat and cool home by various energy sources (see ©43).

During FY2014 budget discussions in March 2013, the Committee discussed a home energy score concept as part of a larger discussion on energy efficiency initiatives. The Council funded a \$40,000 pilot program in the Department of Environmental Protection's budget. Committee members may wish to receive an update from Executive staff on this pilot project.

Energy Scoring Card. The Sierra Club recommended that the Office of Sustainability apply a scoring system – such as one created by the American Council for an Energy-Efficient Economy (see 2013 Scorecard summary on ©57 – that compares local jurisdictions on energy

efficiency policies and programs. According to the Sierra Club, this would offer a roadmap for a government to improve its energy efficiency and learn from other jurisdictions. Council staff agrees that being aware of policies and laws in other jurisdictions can be beneficial for the Office. However, Office staff could do this without the application of a “scorecard”.

Should a new advisory committee be established to advise the Office of Sustainability?

The Sierra Club recommended that the Council create a resident advisory committee to advise the Office and ensure that there is regular public input, support, and accountability. Currently, the Department of Environmental Protection provides staff support for 6 advisory committees: Dickerson Area Facilities Implementation Group, Energy and Air Quality Advisory Group, Forest Conservation Advisory Committee, Noise Control Advisory Board, Solid Waste Advisory Committee, and Water Quality Advisory Group. Council staff agrees that public input is important. Committee members may wish to discuss with Executive staff whether the duties of one of these advisory committees – perhaps the Energy and Air Quality Advisory Group – could be broadened in a subsequent bill to include this function rather than establishing a separate advisory committee.

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Bill No. 6-14
Concerning: Environmental Sustainability
- Office of Sustainability - Established
Revised: 1/10/2014 Draft No. 1
Introduced: January 28, 2014
Expires: July 28, 2015
Enacted: _____
Executive: _____
Effective: _____
Sunset Date: None
Ch. _____, Laws of Mont. Co. _____

**COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND**

By: Councilmembers Berliner, Floreen, and Riemer, Council Vice President Leventhal, and
Councilmembers Andrews, and Navarro

AN ACT to:

- (1) create a Office of Sustainability in the Department of Environmental Protection;
- (2) specify the duties of the Office;
- (3) repeal and reassign the duties of the Sustainability Working Group; and
- (4) generally amend County law on environmental sustainability.

By amending

Montgomery County Code
Chapter 8, Buildings
Section 8A-14B

Chapter 18A, Environmental Sustainability
Sections 18A-12, 18A-13, 18A-14, 18A-17, 18A-19, 18A-20, and 18A-23

Chapter 40, Real Property
Section 40-13B

By deleting

Chapter 8, Buildings
Section 8-14C and 8-53
Chapter 18A, Environmental Sustainability
Sections 18A-15 and 18A-16

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:

1 **Sec. 1. Sections 8-14B, 18A-12, 18A-13, 18A-14, 18A-17, 18A-19, 18A-20,**
2 **18A-23, and Section 40-13B are amended, and Sections 8-14C, 8-53, 18A-15, and**
3 **18A-16 are deleted as follows:**

4 **8-14B. County buildings - energy unit savings plans, energy cost savings**
5 **plans, and energy performance contracts.**

6 (a) *Definitions.* In this Section, the following words have the meanings
7 indicated:

8 [“]County building[”] means a building which is owned or leased by the
9 County.

10 [“]Energy baseline[”] means the amount of energy consumed each year
11 by a County building based on historical metered data, engineering
12 calculations, submetering of buildings or energy consuming systems,
13 building load simulation models, statistical regression analysis, or any
14 combination of those methods.

15 [“]Energy cost savings plan[”] means a plan to reduce a County
16 building’s energy costs, including related operation and maintenance
17 costs.

18 [“]Energy performance contract[”] means a contract which provides for
19 the performance of services for the design, acquisition, installation,
20 testing, operation, maintenance, or repair of an identified energy
21 conservation measure or series of measures in a County building.

22 [“]ENERGY STAR rating[”] means the ENERGY STAR rating
23 developed by the federal Environmental Protection Agency which
24 reflects a building’s energy efficiency.

25 [“]Energy unit savings plan[”] means a plan to reduce the amount of
26 energy used by a County building, as measured in kilowatt hours or
27 British thermal units.

28 Office of Sustainability or Office means the Office of Sustainability
 29 created under Section 18A-13.

30 [“*National energy performance rating system*”] means the rating
 31 system developed by the federal Environmental Protection Agency
 32 under which a building may obtain the ENERGY STAR rating.

33 [“Sustainability Working Group” means the Group defined in Section
 34 18A-13.]

35 (b) *Requirements.* The Office of Sustainability [Working Group] must:

36 (1) develop an energy baseline, energy unit savings plan, and energy
 37 cost savings plan for each County building;

38 (2) submit an initial report to the County Executive and County
 39 Council by January 15, [2009] 2015 which summarizes the
 40 energy baseline, energy unit savings plan, and energy cost
 41 savings plan for each County building; and

42 (3) submit an annual report to the County Executive and County
 43 Council by January 15 of each year that summarizes the steps
 44 taken in the preceding fiscal year to implement the energy unit
 45 savings plan and energy cost savings plan for each County
 46 building.

47 (c) *Energy performance contracts.* Each energy unit savings plan and
 48 energy cost savings plan that the [Sustainability Working Group] Office
 49 prepares under subsection (b) must include a plan to use an energy
 50 performance contract unless the [Sustainability Working Group] Office
 51 finds that the cost of using an energy performance contract outweighs
 52 the benefit.

53 **[8-14C. Private buildings - incentives.]**

54 [(a) *Study.* The Sustainability Working Group must evaluate:

- 55 (1) options for creating incentives for the owners of commercial,
- 56 multi-family residential, or single-family residential buildings to
- 57 modify the buildings to increase their energy efficiency and
- 58 (2) options to minimize the impact on affordable housing of
- 59 achieving the ENERGY STAR rating under the national energy
- 60 performance rating system.

61 (b) *Report.* The Sustainability Working Group must submit a report to the
 62 County Executive and County Council by January 15, 2009 regarding
 63 the Group’s findings and recommendations.]

64 **[8-53. ASHRAE/USGBC/IESNA standards.]**

65 [(a) Definitions.
 66 “ASHRAE/USGBC/IESNA Standard 189.1” means the standard for
 67 high-performance green buildings developed by the American Society
 68 of Heating, Refrigerating and Air-Conditioning Engineers, the U.S.
 69 Green Buildings Council, and the Illuminating Engineering Society of
 70 North America.

- 71 (b) The Sustainability Working Group must:
 - 72 (1) evaluate the costs and benefits of adopting the
 - 73 ASRAE/USGBVC/IESNA Standard 189.1; and
 - 74 (2) recommend to the County Executive and County Council by
 - 75 January 15, 2009, whether the County should adopt the
 - 76 ASHRAE/USGBC/IESNA Standard 189.1, particularly the
 - 77 energy efficiency section, or any other building performance
 - 78 standard.]

79 **18A-12. Definitions.**

80 In this Article, the following words have the meanings indicated:

81 ["*Cap and trade program*"] means a program that places a limit on the
 82 aggregate net greenhouse gas emissions of the participants, while allowing the
 83 transfer or sale of greenhouse gas emission allowances.

84 ["*Carbon dioxide equivalent*"] means a given weight of a greenhouse gas
 85 that has the same global warming potential, measured over a specified time, as
 86 a given weight of carbon dioxide.

87 ["*Climate Protection Plan*"] means the plan to reduce the level of
 88 Countywide greenhouse gas emissions prepared under Section 18A-14.

89 ["*Countywide greenhouse gas emissions*"] means the total annual greenhouse
 90 gas emissions in the County, measured in tons of carbon dioxide equivalents,
 91 including all emissions from electricity generated outside the County but
 92 consumed in the County.

93 ["*Department*"] means the Department of Environmental Protection.

94 ["*Director*"] means the Director of the Department or the Director's
 95 designee.

96 ["*Greenhouse gas*"] includes carbon dioxide, methane, nitrous oxide,
 97 hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and any other
 98 gas or substance the Director finds to be a significant contributor to global
 99 warming.

100 Office of Sustainability or Office means the Office of Sustainability created in
 101 Section 18A-13.

102 **18A.13. [Sustainability Working Group] Office of Sustainability.**

103 [(a) *Definition.* In this Section, "Group" means the Sustainability Working
 104 Group.]

105 [(b) *Established.* The Executive must appoint, subject to confirmation by
 106 the Council, a Sustainability Working Group.]

107 [(c) *Members.*

- 108 (1) The Group has 26 members.
- 109 (2) The Executive must appoint a representative from each of the
- 110 following Departments to serve as an ex officio member:
- 111 (A) Environmental Protection;
- 112 (B) Economic Development;
- 113 (C) Finance;
- 114 (D) General Services;
- 115 (E) Management and Budget;
- 116 (F) Permitting Services;
- 117 (G) Public Information; and
- 118 (H) Transportation
- 119 (3) The Executive must invite one representative from each of the
- 120 following to serve as an ex officio member:
- 121 (A) County Council;
- 122 (B) County Planning Board;
- 123 (C) Washington Suburban Sanitary Commission;
- 124 (D) Montgomery County Public Schools;
- 125 (E) Montgomery College;
- 126 (F) a municipal government in the County; and
- 127 (G) an appropriate regional organization.
- 128 (4) The Executive must appoint 11 public members. The public
- 129 members should include:
- 130 (A) representatives of the business community;
- 131 (B) representatives of land development or building interests;
- 132 (C) representatives of energy distribution or supply firms;
- 133 (D) persons with expertise in stormwater management;
- 134 (E) persons with expertise in clean energy and air quality;

- 135 (F) persons with expertise in forest and habitat protection;
 136 (G) members of civic organizations active in County affairs;
 137 (H) persons with scientific and academic expertise; and
 138 (I) representatives of communications and media interests.
- 139 (5) The term of each member is 3 years. If a member is appointed to
 140 fill a vacancy before a term expires, the successor serves the rest
 141 of the unexpired term.]

142 [(d) *Voting, officers, chairs, meetings, and compensation.*

- 143 (1) Each member of the Group is a voting member.
 144 (2) The Executive must designate the Director of the Department of
 145 Environmental Protection and a public member to be Co-chairs.
 146 (3) The Group meets at the call of the Co-chairs. The Group must
 147 meet as often as necessary to perform its duties, but not less than
 148 quarterly.
 149 (4) A member serves without compensation. However, a member
 150 may request reimbursement for mileage and dependent care costs
 151 at rates established by the County.]

152 [(e) *Subcommittees.* The Co-chairs, with the approval of the Group, may
 153 create one or more subcommittees to assist in carrying out any function
 154 of the Group. Any subcommittee must consist of at least 3 members.
 155 Any subcommittee action is not the action of the Group and must not
 156 bind the Group or its members. The Co-chairs must select the chair and
 157 members of each subcommittee, which may include persons who are
 158 not members of the Group. However, the chair of each subcommittee
 159 must be a member of the Group.]

160 [(f) *Duties.* By January 15, 2009, the Group must:

- 161 (1) conduct the greenhouse gas emissions inventory and recommend
162 the Climate Protection Plan as required under Section 18A-14;
- 163 (2) conduct the annual inventory of the County's sport utility
164 vehicles and develop criteria to identify positions in County
165 government that should be assigned sports utility vehicles as
166 required under Section 18A-19;
- 167 (3) evaluate the costs and benefits of a car share program as required
168 under Section 18A-22;
- 169 (4) prepare a Telecommuting Action Plan as required under Section
170 33-24;
- 171 (5) develop an energy baseline, energy unit savings plan, and energy
172 cost savings plan for each County building as required under
173 Section 8-14B;
- 174 (6) evaluate options to create incentives for owners of commercial,
175 multi-family residential, and single-family residential buildings to
176 modify those buildings to increase their energy efficiency as
177 required under Section 8-14C;
- 178 (7) evaluate options to minimize the impact on affordable housing of
179 achieving the ENERGY STAR rating as required under Section
180 8-14C;
- 181 (8) evaluate options to encourage homeowners to conduct energy
182 audits as required under Section 40-13B;
- 183 (9) prepare a Renewable Energy Action Plan as required under
184 Section 18A-16 and
- 185 (10) evaluate the costs and benefits of adopting the
186 ASHRAE/USGBC/IESNA Standard 189.1 as required under
187 Section 8-53.]

- 188 [(g) *Additional duties.* The Group may also recommend, as appropriate, any
 189 action that promotes the improvement of air and water quality, habitat
 190 restoration, economic vitality, and a high quality of life for all County
 191 residents. This and other duties of the Group must not infringe on or
 192 restrict the County Planning Board's authority under state and County
 193 laws to conduct land use and transportation planning and other relevant
 194 planning and analysis.]
- 195 [(h) *Annual report.* By January 15 each year, the Group must submit to the
 196 Executive and Council an annual report on:
- 197 (1) its activities, accomplishments, plans, and objectives;
 - 198 (2) actions taken to implement the Climate Protection Plan, and
 199 whether the County is meeting the goals identified in the Climate
 200 Protection Plan as required under Section 18A-14;
 - 201 (3) the use of biodiesel fuels in County vehicles, results of the sport
 202 utility vehicle inventory, and the average fuel economy for
 203 passenger vehicles and light trucks in the County fleet as required
 204 under Section 18A-23;
 - 205 (4) action taken in the preceding year to implement the
 206 Telecommuting Action Plan as required under Section 33-24; and
 - 207 (5) steps taking in the preceding year to implement the energy unit
 208 savings plan and energy cost savings plan for each County
 209 building as required under Section 8-14B.]
- 210 [(i) *Advocacy.* The Group must not engage in any legislative advocacy at
 211 the State or federal levels unless that activity is approved by the Office
 212 of Intergovernmental Relations.]
- 213 [(j) *Staff.* The Chief Administrative Officer must provide appropriate staff
 214 to the Group.]

- 215 (a) Created. The Department of Environmental Protection must create an
216 Office of Sustainability.
- 217 (b) Duties. The Office must:
- 218 (1) update the greenhouse gas emissions inventory as required under
219 Section 18A-14;
- 220 (2) conduct the annual inventory of the County's sport utility
221 vehicles and develop criteria to identify positions in County
222 government that should be assigned sport utility vehicles as
223 required under Section 18A-19;
- 224 (3) develop an energy baseline, energy unit savings plan, and energy
225 cost savings plan for each County building as required under
226 Section 8-14B;
- 227 (4) evaluate options to encourage homeowners to conduct energy
228 audits as required under Section 40-13B; and
- 229 (5) prepare an annual report, as required in subsection (c).
- 230 (c) Annual report. By January 15 each year, the Office must submit to the
231 County Executive and County Council an annual report on:
- 232 (1) its activities, accomplishments, plans, and objectives;
- 233 (2) actions taken to implement the Climate Protection Plan, and
234 whether the County is meeting the goals identified in the Climate
235 Protection Plan as required under Section 18A-14;
- 236 (3) the use of biodiesel fuels in County vehicles, results of the sport
237 utility vehicle inventory, and the average fuel economy for
238 passenger vehicles and light trucks in the County fleet as required
239 under Section 18A-23; and

240 (4) steps taken in the preceding year to implement the energy unit
 241 savings plan and energy cost savings plan for each County
 242 building as required under Section 8-14B.

243 **18A-14. Climate Protection Plan.**

244 (a) *Inventory.* The Office of Sustainability [Working Group] must [conduct
 245 a] update the greenhouse gas emissions inventory to determine the
 246 amount of greenhouse gases emitted in the County and submit a written
 247 report on the inventory to the County Executive and County Council by
 248 January 15, [2009] 2015.

249 (b) *Reduction of greenhouse gas emissions.* The [Sustainability Working
 250 Group] Office must [prepare a] update the County Climate Protection
 251 Plan by January 15, [2009 that outlines] 2015. This update must outline
 252 a plan to reduce Countywide greenhouse gas emissions to 80% below
 253 the amount of greenhouse gas emissions in the base year identified in
 254 the inventory prepared under subsection (a) by January 1, 2050,
 255 including a plan to [stop increasing Countywide greenhouse gas
 256 emissions by 2010 and] achieve a 10% reduction every 5 years through
 257 2050.

258 * * *

259 (d) *Preparation.* In preparing the update to the Climate Protection Plan, the
 260 Office [Sustainability Working Group] must:

- 261 (1) consider greenhouse gas emissions reduction programs in other
 262 jurisdictions;
- 263 (2) evaluate the potential costs and benefits of different options for
 264 reducing greenhouse gas emissions to the County's economy,
 265 environment, health, safety, and welfare; and

266 (3) use the best available economic models, emissions estimating
 267 techniques, and other scientific methods.

268 (e) *Annual report.* The [Sustainability Working Group] Office must submit
 269 a report to the County Executive and County Council by January 15 of
 270 each year that specifies:

271 (1) the actions taken to implement the Climate Protection Plan in the
 272 preceding fiscal year; and

273 (2) whether the County is meeting the goals identified in the Climate
 274 Protection Plan.

275 **[18A-15. Carbon tax] Reserved.**

276 [(a) In this Section, the following words have the meanings indicated:

277 “Carbon tax” means a tax that is proportionate to the amount of carbon
 278 dioxide produced by an energy source.

279 “Fuel energy tax” means the fuel energy tax imposed under Section 52-
 280 14.

281 (b) The Sustainability Working Group must:

282 (1) evaluate the costs and benefits of converting the fuel energy tax
 283 to a carbon tax; and

284 (2) submit findings and recommendations to the County Executive
 285 and County Council by January 15, 2009, including a
 286 recommended methodology for converting the fuel energy tax to
 287 a carbon tax.]

288 **18A-16. [Renewable Energy Action Plan] Reserved.**

289 [(a) *Definitions.* In this Section, the following words have the meanings
 290 indicated:

291 “Department” means the Department of Environmental Protection.

292 “Director” means the Director of the Department or the Director’s
293 designee.

294 “Renewable energy” means the following energy sources or technology:

- 295 (1) solar;
- 296 (2) wind;
- 297 (3) geothermal;
- 298 (4) tidal;
- 299 (5) methane from anaerobic decomposition of organic materials in a
300 landfill or wastewater treatment plant; and
- 301 (6) any other energy source or technology which the Director finds is
302 derived from natural processes that do not involve the
303 consumption of exhaustible resources.

304 “Sustainability Energy Fund” means a non-profit organization which:

- 305 (1) develops end-user markets for products and services relating to
306 energy efficiency and renewable energy; and
- 307 (2) serves as a point-of-contact for end-users to obtain information
308 about products and services relating to energy efficiency and
309 renewable energy.

310 “Sustainability Working Group” means the Group defined in Section
311 18A-13.]

312 [(b) *Study.* The Sustainability Working Group must prepare a Renewable
313 Energy Action Plan after evaluating the costs and benefits of options to
314 increase renewable energy use in and by the County, including the
315 feasibility of creating a Sustainability Energy Fund.]

316 [(c) *Initial report.* The Sustainability Working Group must submit a report
317 to the County Executive and County Council by January 15, 2009 that
318 identifies the components of the Renewable Energy Action Plan.]

319 [(d) *Energy work program.* The County Executive’s energy work program,
 320 required by Section 18A-2, must identify any action necessary to
 321 implement the Renewable Energy Action Plan.]

322 **18A-17. Definitions.**

323 In this Article, the following words have the meanings indicated:

324 [“*ASTM*”] means the American Society for Testing and Materials.

325 [“*B20*”] means a biodiesel blend of 20% biodiesel and 80% petroleum diesel
 326 fuels.

327 [“*Biodiesel*”] means any biomass-based diesel fuel certified by the
 328 Environmental Protection Agency.

329 [“*Biodiesel blend*”] means a blend of biodiesel fuel, designated BXX, where
 330 XX represents the volume percentage of biodiesel fuel in the blend.

331 [“*Car share program*”] means a program that allows County employees to
 332 conduct County business using motor vehicles which:

- 333 (1) are owned or leased by the County; and
 334 (2) County residents and businesses can lease when they are not being used
 335 for County business.

336 [“*County fleet*”] means all passenger vehicles and light trucks owned or
 337 leased by the County.

338 [“*County vehicle*”] means any motor vehicle owned or leased by the County.

339 [“*Department*”] means the Department of General Services.

340 [“*Diesel fuel*”] means a distillate fuel for use in diesel engines.

341 [“*Director*”] means the Director of the Department or the Director’s
 342 designee.

343 [“*Fuel economy*”] means the federal Environmental Protection Agency’s
 344 combined (city and highway) fuel economy estimate for a vehicle.

345 ["*Light truck*"] means a motor vehicle with a gross vehicle weight of less
 346 than 8,500 pounds which is:

- 347 (1) designed primarily for transporting property;
- 348 (2) designed primarily for transporting persons and has a capacity of more
 349 than 12 persons; or
- 350 (3) available with special features that enable off-road operation or use.

351 ["*Miles per gallon*"] means the distance traveled in a vehicle powered by one
 352 gallon of fuel.

353 Office of Sustainability or Office means the Office of Sustainability created in
 354 Section 18A-13.

355 ["*Passenger vehicle*"] means a motor vehicle, except a light truck or
 356 motorcycle, designed to carry no more than 12 persons.

357 ["*Public safety vehicle*"] means a motor vehicle whose primary purpose is
 358 patrol, transport, emergency response, or another purpose that requires
 359 specialized equipment or capabilities, which is used by:

- 360 (1) the Department of Police;
- 361 (2) the Fire and Rescue Service;
- 362 (3) the Department of Correction and Rehabilitation; or
- 363 (4) any other County department or agency.

364 ["Sustainability Working Group" means the Group defined in Section 18A-
 365 13.]

366 **18A-19. Sport utility vehicles.**

367 (a) The Office of Sustainability [Working Group] must conduct an annual
 368 inventory of the County's sport utility vehicles and:

- 369 (1) identify the function that each sport utility vehicle performs;

370 (2) identify the most fuel-efficient type of vehicle that could
 371 reasonably and satisfactorily perform the function that each sport
 372 utility vehicle performs; and

373 (3) eliminate or replace any sport utility vehicle for which a more
 374 fuel-efficient vehicle could reasonably and satisfactorily perform
 375 the identified function.

376 (b) The [Sustainability Working Group] Office must develop criteria to
 377 identify which positions in County government should be assigned a
 378 sport utility vehicle from the County fleet. The Director must follow
 379 this criteria when assigning vehicles from the County fleet.

380 **18A-20. Fuel economy standards.**

381 (a) The Office of Sustainability [Working Group] must develop a strategy
 382 to achieve a significant improvement in average County fleet fuel
 383 economy standards as part of the Climate Protection Plan required
 384 under Section 18A-14.

385 (b) [*Applicability.*] This Section does not apply to public safety vehicles.

386 **18A-23. Annual report.**

387 By January 15 each year, the Office of Sustainability [Working Group] must
 388 submit to the County Executive and County Council a report on the:

389 (a) use of biodiesel in County vehicles, including the quantity, blend, price
 390 per gallon, and average fuel consumption;

391 (b) results of the inventory of sport utility vehicles conducted under Section
 392 18A-19; and

393 (c) average fuel economy for passenger vehicles and light trucks in the
 394 County fleet.

395 **40-13B. Energy performance audits—single family homes.**

396 (a) *Definitions.* In this Section, the following words have the meanings
 397 indicated:

398 [“*Department*”] means the Department of Environmental Protection.

399 [“*Director*”] means the Director of the Department or the Director’s
 400 designee.

401 [“*Home energy audit*”] means an evaluation of the energy efficiency
 402 of a home which includes any test or diagnostic measurement which the
 403 Department finds necessary to:

- 404 (1) ensure that a home’s energy efficiency is accurately measured; or
- 405 (2) identify steps that can be taken to improve a home’s energy
 406 efficiency.

407 Office of Sustainability or Office means the Office of Sustainability
 408 created in Section 18A-13.

409 [“*Single-family home*”] means a single-family detached or attached
 410 residential building.

411 [“Sustainability Working Group” means the Group defined in Section
 412 18A-13.]

413 (b) Before signing a contract for the sale of a single-family home, the seller
 414 must provide the buyer with:

- 415 (1) material approved by the Department that gives information
 416 about home energy efficiency improvements, including the
 417 benefit of conducting a home energy audit; and
- 418 (2) copies of the electric, gas, and home heating oil bills or cost and
 419 usage history for the single-family home for the immediate prior
 420 12 months, unless the single- family home was unoccupied for
 421 the entire prior 12 months. If the seller did not occupy the single-
 422 family home for the entire prior 12 months, the seller must

423 provide the buyer with the required information for that part of
424 the prior 12 months, if any, that the seller occupied the single-
425 family home.

426 (c) The Office of Sustainability [Working Group] must evaluate options to
427 encourage homeowners to conduct a home energy audit, including
428 whether the County should require a home energy audit to be conducted
429 before the sale of a single-family home.

430 *Approved:*

431

Craig L. Rice, President, County Council

Date

432 *Approved:*

433

Isiah Leggett, County Executive

Date

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

435

Linda M. Lauer, Clerk of the Council

Date

LEGISLATIVE REQUEST REPORT

Bill 6-14

Environmental Sustainability – Office of Sustainability - Established

DESCRIPTION: Would create an Office of Sustainability in the Department of Environmental Protection.

PROBLEM: In 2008, the Council tasked a Sustainability Working Group with the responsibility of guiding our County's greenhouse gas reduction implementation. The Working Group has not met or produced anything in recent years.

GOALS AND OBJECTIVES: To make greenhouse gas reduction policy and its implementation a fundamental responsibility of County government, with concomitant accountability.

COORDINATION: Department of Environmental Protection, Office of Management and Budget, County Executive

FISCAL IMPACT: To be requested.

ECONOMIC IMPACT: To be requested.

EVALUATION: To be requested.

EXPERIENCE ELSEWHERE: To be researched.

SOURCE OF INFORMATION: Amanda Mihill, 240-777-7815

APPLICATION WITHIN MUNICIPALITIES: To be researched.

PENALTIES: Not applicable.



ROCKVILLE, MARYLAND

MEMORANDUM

February 5, 2014

TO: Craig Rice, President, County Council

FROM: Jennifer A. Hughes, Director, Office of Management and Budget
Joseph F. Beach, Director, Department of Finance

SUBJECTS: Bill 2-14, Environmental Sustainability – Buildings – Benchmarking
Bill 3-14, Buildings – Energy Efficiency – Energy Standards
Bill 4-14, Street and Roads – County Street Lights
Bill 5-14, Environmental Sustainability – Social Cost of Carbon Assessments
Bill 6-14, Environmental Sustainability - Office of Sustainability – Established
Bill 7-14, Contracts and Procurement – Certified Green Business Program
Bill 8-14, Buildings – County Buildings – Clean Energy Renewable Technology
Bill 9-14, Environmental Sustainability – Renewable Energy – County Purchase
Bill 10-14, Buildings – Solar Permits – Expedited Review
Bill 11-14, Buildings – Electric Vehicle Charging Station Permits – Expedited Review

As required by Section 2-81A of the County Code, we are informing you that transmittal of the fiscal and economic impact statements for the above referenced legislation will be delayed because more time is needed to coordinate with the affected departments, collect information, and complete our analysis of the fiscal and economic impacts. While we are not able to conduct the required detailed analyses at this time, it is clear that a number of these bills could have significant fiscal impacts.

Due to this year's heavy workload on Executive branch staff in developing both a full capital budget and an operating budget, the fiscal and economic statements will be transmitted after March 17, 2014.

JAH:fz

cc: Bonnie Kirkland, Assistant Chief Administrative Officer
Lisa Austin, Offices of the County Executive
Joy Nurmi, Special Assistant to the County Executive
Patrick Lacefield, Director, Public Information Office
Marc P. Hansen, Office of the County Attorney
Robert Hagedoorn, Department of Finance
David Platt, Department of Finance
Alex Espinosa, Office of Management and Budget
Mary Beck, Office of Management and Budget
Naeem Mia, Office of Management and Budget
Felicia Zhang, Office of Management and Budget

TESTIMONY ON BEHALF OF COUNTY EXECUTIVE ISIAH LEGGETT

ON ENVIRONMENTAL AND SUSTAINABILITY PACKAGE

Bills 2-14, 3-14, 4-14, 5-14, 6-14, 7-14, 8-14, 9-14, 10-14, 11-14, 12-14

February 11, 2014

Good evening Council President Rice and members of the County Council. My name is Bonnie Kirkland and I am pleased to be here on behalf of County Executive Isiah Leggett to testify on the package of environmental and sustainability measures introduced on February 4, 2014 by Councilmember Berliner and others. Mr. Leggett supports Councilmember Berliner's initiative and the Council's efforts to address the need for more sustainable development in Montgomery County. Following up on recommendations from the Sustainability Workgroup, this package of renewable energy, energy efficiency and sustainability measures will take the County to the next level of environmental excellence.

Sustainable development has been defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs.¹ The path forward requires understanding and planning: understanding how existing buildings perform and how planned buildings are expected to perform; and designing buildings and other infrastructure that reduce materials consumption, reuse materials, reduce energy consumption and maximize the use of renewable resources.

County Executive Leggett recognizes that the path forward will involve substantial change and commitment on the part of both the public sector and the private sector. He is committed to working with the Council on this package during the coming weeks to develop the most progressive and reasonable legislation achievable that will balance both the compelling need to achieve sustainable development and the budgetary realities faced by the County and our local businesses to fully implement the approved changes the legislative package requires.

Stewardship for future generations has been a cornerstone of Mr. Leggett's Smart Growth Initiative in terms of planning for future growth at appropriate transit oriented locations. The County Executive applauds Councilmember Berliner's and the sponsoring council members' vision and recognition of the need for stewardship of our precious resources for future generations.

¹ International Institute for Sustainable Development quoting from the World Commission on Environment and Development (WCED). *Our common future*. Oxford: Oxford University Press, 1987 p. 43.

AIA Potomac Valley

A Chapter of the American Institute of Architects

Date: February 11, 2014
To: Roger Berliner, Nancy Floreen, Hans Reimer
Montgomery County Council, Transportation and Energy Committee Members
From: American Institute of Architects, Potomac Valley Chapter
Subject: February 11, 2014, Public Hearing on Proposed Environmental and Energy Bills

The local American Institute of Architects, Potomac Valley Chapter (AIA-PV) is writing to provide comment on proposed environmental, sustainability, green building and energy legislation that is summarized in Attachment A.

Throughout 2013, the AIA-PV has been working to assist the Department of Permitting Services by providing multi-disciplinary expert review and comment on green building codes that the county is considering adopting. We have submitted detailed comments to the Department and urged them to proceed slowly and cautiously in order to give design professionals, builders, and owners time to acclimate to the requirements, especially criteria that have the potential to slow economic development in the county. We advise you to do the same before moving forward to adopt new or revised environmental and energy legislation.

In addition, we advise you to seek green building **code solutions** that are effective industry-standard tools to achieve your goals and avoid regulations that make development more time consuming and confusing.

Sincerely,



Eileen Emmet, AIA, IgCC Task Force Co-Chair, eemmet.aia@gmail.com
William (Bill) LeRoy, AIA, IgCC Task Force Co-Chair, w170@icloud.com

cc:

Loreen Arnold, AIA-PV President 2014, larnold@ktgy.com
Scott Knudson, AIA; AIA-PV Past-President 2013, sdqknudson@gmail.com
Ralph Bennett, AIA-PV, IgCC Task Force, ralph@bfmarch.com
Dan Coffey, AIA-PV, IgCC Task Force, dcoffey@therrienwaddell.com

Attachment A: AIA-PV July 30, 2013 IgCC Executive Summary
Attachment B: AIA-PV Feb. 4, 2014 Letter to Diane Schwartz-Jones w/AIA-PV Executive Summary
7.30.2013

AIA Potomac Valley

A Chapter of the American Institute of Architects

Attachment A

2-14: Benchmarking

Benchmarking typically means a baseline against which performance is measured. Reporting for a year is required here (reasonable given seasonal variation) using Portfolio Manager (appropriate), but continuing energy reporting is inevitable and could be addressed by the legislation.

3-14: Building Energy Efficiency - Countywide

The County adopted the International Energy Conservation Code in 2013. This proposal refers to other energy codes included in LEED, and its impact should be assessed. Assumedly, the law intends to include LEED v.3; it should specify since v.4 is more stringent. LEED addresses many more issues than energy; if energy is the concern, it may be better to use energy codes.

4-14: County Street Lights

The assumed purpose is to reduce energy costs while maintaining appropriate lighting levels. LEED may not be, and is not the only answer here. So energy performance of possible alternatives should be addressed.

5-14: Social Costs of Carbon

Good intention - Many sectors of the economy exist only by shedding externality costs onto others. This also addresses the equity leg of the three-legged stool of sustainability.

Metrics here are new, unevenly available, and contentious. As long as the measurements are for information and not used to penalize or qualify projects, this may be a useful window into real sustainability.

6-14: Office of Sustainability

Parallels such agencies elsewhere - their success should be studied before full commitment. Full inclusion of appropriate agencies should be mandated - turf wars are inherent in the placement of such an agency within DEP. Implementation expertise is in permitting. Consider attaching to the Executive.

7-14: Certified Green Business Program

Which Certification will DEP use? Without this, it is difficult to know what the impact will be. The procedures included for selection of a system or systems will take a year, at least.

8-14: County Buildings, Renewable Energy Technology

This assumes that all county buildings can feasibly provide 1kw/1000 sf by photovoltaic generation. This may not be feasible for all buildings - offsets and other on-site energy technologies should be permitted including ground source heat pumps which LEED does not recognize as on-site energy. Renewable Energy Credits be clarified in lieu of 'Offsets.'

9-14: Renewable Energy Purchase: 50% by next year; 100% by 2020

Assumedly, this addresses County government's energy use. Will this extend to quasi-government agencies like HOC? Do they know about this?

10-14: Expedited Review of Solar Permits; 50% permit fee reduction.

Good idea.

11-14: Electric Vehicle Charging Station Permits; 50% permit fee reduction

Good idea.

12-14: County Employee Telecommuting

Good idea.

EXECUTIVE SUMMARY

AIA-PV IgCC Task Force

July 30, 2013

Start Small:

There are many reasons to start small and expand with subsequent revision cycles. This allows time for the industry to come to grips with the new requirements of green codes. It also allows the opportunity to gather real data on the costs and benefits of its implementation.

Montgomery County has diverse building types in urban, suburban and rural settings therefore allowing alternative compliance paths is helpful and necessary to address these varying conditions.

One method for a phased approach is to make compliance optional and create incentives for complying with the code. Incentives can take the form of tax breaks, expedited permitting, or reduced permitting fees.

Another method is to make the most demanding requirements electives and specify a minimum number required. This also provides the opportunity to collect real world data. There is still skepticism about the business model for green building and energy efficient operational directives. Carefully crafted electives and pilot studies can help address that issue. This is the approach taken in the PV-Task Force's detailed recommendations in Attachment B.

Administrative Provisions:

The manner in which the DPS will manage review of projects under the green code is critical to its success. The PV-TF recommends that the DPS create standard forms, templates, and electronic submission protocols and have them in place on the date of adoption in order to administer the requirements in an efficient and effective manner. The requirements of the code also indicate a need for additional DPS review staff to avoid lengthening already long review times. DPS staff will need to be educated and fluent in the code criteria of several compliance paths because alternative compliance paths will have the best chance of a successful implementation process.

Jurisdictional Requirements:

Chapter 3 Jurisdictional Requirement 301.1.1, Scope Application: The task force recommends retaining the option of IgCC or ASHRAE 189.1 compliance paths, thus retaining maximum flexibility for the design team to choose the compliance path applicable to the building type and location. The task force further recommends that LEED Silver should be allowed as an alternative, non-mandatory, compliance path, because it has an established format, method of compliance, and documentation templates.

Electives:

Table 302.1, Requirements Determined by the Jurisdiction: The task force recommends striking the adoption of Table 302.1, the list of 22 additional requirements to be designated by the AHJ. The group feels that the overall number of electives required should apply to the entire code with some exceptions as noted in the Detailed Chapter Analysis and Recommendations.

Flexibility for the applicant is important. For new construction, 20% of electives are a reasonable number if the credits are spread among a minimum of four chapter categories. For existing buildings, 15% of electives are a reasonable number if the credits are spread among a minimum of two chapter categories.

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Square Footage (SF) Size Thresholds:

Across-the-board square-footage size requirements will make adoption of the IgCC a hardship for many project types. The recommendation is to scale the SF thresholds based on the industry standards for type of use and energy use because the variables fall into three categories: a) applicability of the code, b) mechanical systems, and 3) envelope design. This will take more time to analyze and the PV-Task Force can assist the DPS to better define these thresholds.

Adoption in Other Jurisdictions:

While the scope of regional adoption of the IgCC was not a primary task for the PV-Task Force, the group notes the following observations in regard to green code adoption in the region:

Baltimore City Adoption

- In Baltimore City all newly constructed, extensively modified buildings that have or will have at least 10,000 square feet must be LEED-Silver certified or comply with the Baltimore City Green Building Standards (a LEED-like standard).
- Baltimore City is soon to introduce legislation expanding the options for building owners to select from a menu such that a project can be: LEED-Silver certified, or complies with the IgCC, or meets the ASHRAE 189.1 standard, or satisfies Enterprise Green Communities requirements, or complies with ICC 700. (This menu approach is similar to what DC is moving to.)
- The menu approach under legislative consideration will amend the existing Baltimore City Green Building Law whereby the listed options may be available in 4th quarter 2013 and the existing city-drafted regulatory alternative to LEED will remain available until June 1, 2015.
- The only real controversy in proposed legislation has been about the definitions for modified (i.e. the threshold for renovated buildings) structures and in the newly proposed code nearly all renovations will have to comply with the law.

Washington, D.C.

- Although typically slower than Maryland in adopting new code cycles, DC includes stakeholders in the process of code adoption. In the case of the IgCC, to date the input seems to be a great success.
- DC is considered a national green building leader. Green building standards there do not seem to be a deterrent to development.
- DC has adopted a modified approach to IgCC adoption. They moved many items to the Appendix section and recommended 15 credits be achieved, in any category, from 75 credit options.
- DC is more urban than Montgomery County, yet has several paths to compliance: IgCC, ASHRAE 189.1, LEED, and Enterprise Green Communities

Virginia Adoption

Adoption of the IgCC does not seem imminent. In conversations with VA officials, one of the main issues in adopting the IgCC is related to the land use, zoning, related impact the overlay code might have. Since the state of Virginia sets building codes, without local amendments, the IgCC might be considered too difficult to implement with such a diverse landscape, the officials stated that they do not plan to adopt at this time. If less restrictive to permit there, it could be perceived as an economic disadvantage to build or renovate in Montgomery County.

AIA Potomac Valley

A Chapter of the American Institute of Architects

February 4, 2014

Ms. Diane Schwartz-Jones, Director
Department of Permitting Services
255 Rockville Pike, 2nd Floor
Rockville, Maryland 20850-4166

Copy via email to diane.jones@montgomerycountymd.gov

Dear Ms. Schwartz-Jones,

Re: AIA-Potomac Valley Chapter, IgCC/ASHRAE 189.1 Task Force Recommendations

On July 30, 2013, the AIA-Potomac Valley Chapter (AIA-PV) submitted recommendations to you in regard to possible adoption of the International Green Construction Code (IgCC). As you know, the AIA-PV has a task force group who has been working together on this subject matter for some time. The group is comprised of a multi-disciplinary group of design professionals: architects, engineers, a developer/landscape architect, a builder, and others.

This letter provides supplemental information that responds to your staff's request that our group also review and make recommendations in regard to possible adoption of the ANSI/ASHRAE/USGBC/IES Standard 189.1-2011 -- Standard for the Design of High-Performance Green Buildings, Except Low-rise Residential Buildings (also referred to as ASHRAE 189.1, 2011). ASHRAE 189.1 is an alternative means of compliance incorporated into the IgCC 2012 codebook. We hope this additional information meets your needs:

As mentioned in our July 30, 2013 letter, the AIA-PV group still recommends that Montgomery County:

- Refer to our July 30, 2013 Executive Summary (Attachment A) and detailed recommendations previously submitted
- Proceed slowly and cautiously in order to give design professionals, builders, and owner's time to acclimate to the requirements, especially criteria that have the potential to slow economic development in the county while other nearby jurisdictions are taking a measured approach or not yet shifting to these codes.
- Adopt the IgCC and alternative compliance paths (including ASHRAE 189.1) and do away with the current Montgomery County Green Building Law.

In addition, we recommend you create an industry advisory panel to make a solid implementation plan with the Department of Environmental Protection (DEP). We feel this is important because most of the details and issues to implement the County Council's proposed green building legislation are at the direction and responsibility of the Director of DEP and because those legislations overlap with requirements in green building codes that DPS is proposing.

The following items in Attachment B summarize the detailed analysis and recommendations of the AIA-PV-Task Force in regard to ASHRAE 189.1*:

- Section 5, Site Sustainability
- Section 6, Water Use Efficiency
- Section 7, Energy Efficiency
- Section 8, Indoor Environmental Quality
- Section 9, The Building's Impact on the Atmosphere, Materials, and Resources
- Section 10, Construction and Plans for Operation

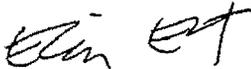
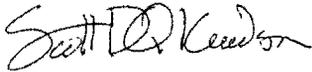
* Unlike the IgCC, ASHRAE 189.1 does not have a chapter for historic and existing buildings so comments on those building types have been incorporated into each section's recommendations.

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Once you have had a chance to review our recommendations, the PV-Task Force members would be pleased to meet with you in person to answer questions, clarify our recommendations, or address any item of interest that we may have overlooked. Thank you for giving us this opportunity to assist you.

Sincerely,



Scott Knudson, AIA; AIA-PV Past-President 2013, sdgknudson@gmail.com

Eileen Emmet, AIA, IgCC Task Force Co-Chair, eemmet.aia@gmail.com

William (Bill) LeRoy, AIA, IgCC Task Force Co-Chair, w170@icloud.com

Attachment A: AIA-PV July 30, 2013 IgCC Executive Summary

Attachment B: AIA-PV ASHRAE 189.1 Recommendations

cc DPS: Hadi Mansouri, hadi.mansouri@montgomerycountymd.gov,
Mark Nauman, mark.nauman@montgomerycountymd.gov
Hemal Mustafa, hemal.mustafa@montgomerycountymd.gov

Cc: IgCC/ASHRAE 189.1 Task Force Members:

Ralph Bennett, AIA; Bennett, Frank, McCarthy Architects

Bruce Blanchard, Senior Consultant, Polysonics Acoustics & Technology Consulting

Daniel Coffey, Vice President, Therrien Waddell, Inc., Chairman USGBC-NCR, Montgomery County Chapter

Stephen Kirk, International Code Council, Associate Member

Suketu Patel AIA LEED AP BD+C; President, Integrated Design Studio LLC

Kirill Pivovarov, AIA, LEED AP; Principal, RTKL Associates Inc.

Steven Schwartzman, AIA, LEED AP; Associate Principal, WDG ARCHITECTURE

Geoff Sharpe, ASLA

Catherine E. Sheehan, AIA, LEED AP

Adam Spatz, PE, LEED AP; Senior Mechanical Engineer, Greenman-Pedersen, Inc.

Paul Tseng, PE, CxAP, CPMP, CMVP CEM, LEED AP; President, Founder, Advanced Building Performance

Amy Upton, LEED AP BD+C; Director of Environmental Design, Senior Associate, Grimm + Parker

Mihill, Amanda

From: Faden, Michael
Sent: Tuesday, February 11, 2014 1:24 PM
To: Mihill, Amanda
Subject: FW: Energy Bills Testimony

From: Robert Kaufman [mailto:rkaufman@mncbia.org]

Sent: Tuesday, February 11, 2014 12:44 PM

To: Berliner's Office, Councilmember; Riemer's Office, Councilmember; Floreen's Office, Councilmember; Leventhal's Office, Councilmember; Rice's Office, Councilmember; Elrich's Office, Councilmember; Andrews's Office, Councilmember; Navarro's Office, Councilmember; Branson's Office, Councilmember; Hoyt, Bob

Cc: Goldstein, Steven; Gibson, Cindy; Faust, Josh; Healy, Sonya; Jones, Diane; Wright, Gwen; Zyontz, Jeffrey; Orlin, Glenn; Faden, Michael; Michaelson, Marlene; McMillan, Linda; Kelly Grudziecki; Bruce H. Lee; Bryant F. Foulger; Bob Harris; William Kominers; selmendorf@linowes-law.com; tdugan@shulmanrogers.com; Montenegro@ballardspahr.com; Pharr, Shaun; Clark Wagner; JRussel@roddgers.com; Paul Chod; Steve Robins; Steve Orens; Ilaya Hopkins; Ilana Branda; lisetracey@yahoo.com; gitaliano@bccchamber.org; Jane Redicker; Annette Rosenblum; mjackson@mncbia.org; dswenson@mncbia.org

Subject: Energy Bills Testimony



Please accept the following as Testimony on behalf of the MNCBIA concerning the various Energy related bills introduced by Councilmember Berliner and others.

Bills 11-14 and 10-14 Expedited Review

We understand and appreciate the desire to provide an expedited review as an incentive to promote use of energy saving technology, the facts however suggest that all new buildings and remodeling meet substantially higher standards of energy efficiency and all deserve efficient review and approval. Especially since passage of the 2012 Building and Energy Code changes, all new and remodeled buildings today provide substantial energy savings and efficiencies.

Additionally, identifying specific permits to expedite may not be as simple as it seems given the complexities of today's permits and construction techniques. The Solar permits or charging permits may be part of a much larger permit application and may not be easily separated for expedited review. The MNCBIA recently established a Solar Energy Program with ASTRUM Solar to encourage use of Solar installations on new homes and would in fact benefit from an expedited process.

Instead, however, we urge the County to continue to improve the overall permit review and approval process so that an expedited review becomes moot. We draw attention to and gratefully acknowledge the recent announcement by DPS to institute an electronic plan submission for new construction and right-of-way permits and look forward to other improvements.

Bill 6-14 Environmental Sustainability Office

Given the real world changes to our land use regulations and building codes, an office of sustainability best serves the County as a comprehensive planning approach that encourages coordination and balance to maximize use and maintenance of our complex systems that tie together smart growth planning, land use planning, building use, land use and transportation. **We support encouraging MNCPPC to create a position of a sustainability planner in MNCPPC** where we do our forward thinking. The Department of Environmental Protection provides guidance and support for land use related issues and environmental stewardship of our land. Sustainability implies economics, construction,

government policy, business management, coordination, building technology as well as land use most of which remain outside the purview of DEP.

Bill 3-14 Building Standards - LEED Silver

New buildings today increasing meet a minimum of LEED or other similar certification such as IgCC and Green Globes.

The LEED Silver level continues to evolve and relies on land use based issues as well and energy efficiencies that cannot be easily achieved. **We prefer continuing to allow the market place to work toward green options** particularly in light of the new energy and building codes and prefer capitalizing on the current market trend toward green certification at the LEED certified, IgCC and Green Globes levels.

Bill 2-14 Benchmarking

Currently we operate on a whole new set of energy saving requirements for all new and remodeled buildings based on the 2012 Building and Energy Codes. In addition, nearly all new buildings today meet LEED certified or similar standard. Benchmarking becomes excessive under these circumstances. Additionally, we need to agree on what purpose the benchmarking serves. As currently developed by EPA, the benchmarking relates largely to greenhouse gas emissions and not costs or energy use. This promotes use of natural gas and renewable energy sources over use of coal, oil, or other carbon based fuel. Today the cost of gas remains comparatively low, this results often in cost savings, however, most users have little say over the source of fuel used to generate electricity and cannot easily switch to gas or renewable sources. Should gas prices rise, than any cost savings may evaporate. Nonetheless, we support the concept of encouraging and supporting efforts to benchmark the energy use of buildings if only to set goals for energy savings over time. **We urge the Council to set up a working group to identify ways to best create, support, encourage and measure building energy use that can be cost effective and manageable.** Especially problematic concerns the requirement to set up benchmarking apparatuses for residential and commercial tenants, or owners of condo space within buildings.

The use of benchmarking can result in the highest energy savings with existing buildings. This unfortunately places the greatest cost burden on the most affordable buildings with the lowest rents, both residential and commercial. Clearly if the investment in energy savings saves money, the owners, tenants and the County have a natural incentive to set up benchmarking. **We urge the County to form a working groups of existing building owners and tenants to consider the most effective way to encourage, support and afford energy re-commissioning.**

S. Robert Kaufman
Vice President, Government Affairs
Maryland National Capital Building Industry Association
1738 Elton Road
Suite 200
Silver Spring, Maryland 20903
bkaufman@mncbia.org
(301) 445-5408 Office
(301) 768-0346 Cell

BIA's Networking Happy Hour – Feb. 20
& FREE Business Development Class
[Click here](#) for details and to register

FIL Speaker Series with Bryant Foulger – Feb. 21
Join us for breakfast. [Click here](#)

Celebrity Chefs & Tabletop Night – March 27
Be a Chef or just come to eat. [Click here](#) for details

Check out NAHB's Member Advantage Program at www.nahb.org/ma

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THE VOICE OF MONTGOMERY COUNTY BUSINESS

**MONTGOMERY COUNTY COUNCIL
PUBLIC HEARING**

BILLS 2-14 THROUGH 12-14

FEBRUARY 10, 2014

As a Chamber of Commerce that recognizes the economic and environmental imperative of greening the way we do business, we commend the County Council for the intent of this package of bills. We believe that positioning our county as a place to do green business is a compelling competitive advantage in today's marketplace. Supporting a green infrastructure is critical, as is growing the number of green jobs that are created to meet the needs of the new marketplace.

There are, however, areas of concern with regard to the package. Below are specific comments on a few of the bills. Broadly speaking, the fiscal impact statements will likely address the costs associated with the various activities. It will be important to review these so as not to impose undo burden as we try to move the marketplace. Where possible, incentives should be deployed to encourage adoption of new practices and attainment of environmentally sustainable goals. We would also like to see these bills work in concert with other county regulations so there is not confusion in following or enforcing the regulations.

We see green as part of a larger economic development strategy for the county. The Green Business Certification program is a terrific example of the business community working in partnership with the Department of Environmental Protection and Montgomery College to achieve environmental goals through a voluntary program. We look forward to working with you, the County Council, to make sure this package is able to realize the stated intention of addressing climate change at the local level to the greatest extent possible.

Comments on specific bills:

Bill 7-14 Contracts and Procurement -Certified Green Business Program

We applaud the County Council for recognizing the Montgomery County Green Business Certification Program and finding ways to incentivize those companies interested in working with the county to participate. We encourage the county government - or units within it - to become "Green Certified" and to green its own supply chain by using environmentally preferable purchasing of products and practices where appropriate. There is a green procurement bill requested by DGS (HB 629) pending at the state which could serve as a guide.

According to the information provided by the Council staff, "The goal is to encourage businesses to develop strategies for protecting the environment in their day to day operations." If the goal is

indeed to encourage more businesses to adopt green practices internally (such that they can be certified by Montgomery County or another comparable entity), the county may also want to explore using one or more of the many tools available outside of the county procurement process and appropriate to all businesses to incentivize that initiative.

Coincidentally, there is also a bill in the General Assembly that focuses on creating Green Business Incentive Zones (HB 473/SB 787) which also encourages the growth and success of this new market player by offering incentives such as tax credits.

This bill, as drafted, uses the procurement process and the opportunity to gain preference as an incentive. The procurement process is complex. Any modification to that process should be to make it easier to do business with the county. We are concerned that by restricting the language to "percentage price preference" companies that do have the right products or services, but have not met the green business certification preference, may be at a disadvantage that ultimately undermines the overall effort to reduce our collective ecological footprint. Therefore, we suggest reviewing the ways that the procurement process can be used effectively, perhaps by including green certification in the evaluation criteria or as a "tip over." This may more effectively encourage companies to green themselves without inadvertently making the procurement process more cumbersome and ultimately counter-productive in meeting the goal. It is worth noting that "percentage price preference" language was struck from HB 629 mentioned above.

Bill 2-14, Environmental Sustainability - Buildings - Benchmarking

To the extent that buildings are a critical piece of the climate puzzle, it is important to understand energy usage and work to conserve where we can. That being said, we encourage the Council to look to federal regulations as many tenants in the county are federal offices or contract with the federal government. Therefore, any new requirements for owners and/or tenants should conform to federal standards.

Second, we firmly believe that if the county requires benchmarking of private property owners, the county must be able to participate in the program as well. Taxpayers should know the efficiency of the buildings they are paying to operate. Last, for those older buildings that will be among the least efficient, the program must provide some process to help with mitigation, whether it be providing priority for county programs or other education and incentives to address problems.

Bill 5-14, Environmental Sustainability - Social Cost of Carbon Assessments

It is unclear, based on our reading of this bill, how the EPA method that was developed for regulations/legislation would be applied to Capital Improvement Projects or energy efficiency improvements in general. It is also unclear how information gleaned from the calculation would be used to reach any conclusion on the viability of a project.

Bill 6-14, Environmental Sustainability - Office of Sustainability - Established

Based on the bill as written, this new office would record and manage the county's greenhouse gas emissions. We see Montgomery County's position as a leader in sustainability as a driver of economic development. We therefore believe that this effort should include an economic development component as well as clear coordination with the extensive land use and transportation work that happens throughout the county government and with Park and Planning. In addition to producing an annual report, there should be some demonstrable gain to county taxpayers to justify the creation of a new office, which will require additional staffing and new responsibilities.

With regard to the remaining bills that are part of this package, we would encourage Council Members to be mindful of hidden costs and unintended consequences that may arise from the adoption of some of these bills. We hope that the fiscal impact statement will speak to some of these and that the committee work sessions will be constructive and produce useful information.

As mentioned at the outset, we see green as part of a larger economic development strategy for the county. We look forward to working with you to make sure this package is able to realize the stated intention of addressing climate change at the local level to the greatest extent possible.

Testimony of Montgomery County Sierra Club

Good evening. Thank you for the opportunity to speak this evening. My name is Michal Freedman and I am here as a member of the Montgomery County Sierra Club Executive Committee, representing the more than 5,000 Sierra Club members in Montgomery County.

We applaud Councilmember Roger Berliner and the cosponsors for introducing this suite of bills. We support these bills because they demonstrate a commitment to the crucial goals of climate mitigation and sustainability.

Our organization, the Sierra Club, has made averting climate change a core goal. Michael Brune, the Executive Director, said: “we are watching a global crisis unfold before our eyes, and to stand aside and let it happen – even though we know how to stop it – would be unconscionable.”

Climate change calls for national and international responses, but greenhouse gas emissions are generated locally. Some cities across the country are making aggressive efforts to reduce their contribution to climate change. But it is rare to hear of counties taking on climate change. By taking the lead on curbing fossil fuel use, Montgomery County can serve as a model for other counties.

There are a few key elements to successful public initiatives to reduce greenhouse gas emissions.

First, set clear, quantifiable goals for reducing energy use or greenhouse gas emissions.

Second, ensure that information on progress or lack of it is fully available to the public, both to ensure public accountability and to make private markets in energy consumption work better. Good data drives market energy choices and innovation.

Third, allocate sufficient resources to effectively carry out the new, official duties.

These are the elements we want to focus on: quantifiable goals, public data, adequate resources. In our comments we will highlight the importance of these elements and, in some cases, advocate for strengthening the bills to help achieve them.

The first key element we have emphasized for reducing fossil fuel consumption – setting a clear, quantifiable goal – is illustrated by Bill 9-14, which requires the County to purchase specific percentages of renewable energy. The goal is absolutely clear and quantifiable. By 2020, the county’s electric power usage should be supplied entirely by renewable energy.

Bill 2-14, the Benchmarking bill, relies on the second element, the power of public information to reduce energy use and fossil fuel consumption. The bill would require large building owners to measure the energy efficiency of their buildings and make that information public.

Building owners and real estate companies will have the information they need to make cost-saving energy investments. The Chairman and CEO of a large real estate company, U.S. Equities, said "U.S. Equities includes benchmarking energy use of the buildings in our portfolio and using that data to drive results. Our buildings see better financial and leasing performance as their environmental performance improves."

A Chicago ordinance on benchmarking that serves as a model for this bill was backed by a coalition of more than 80 leading organizations from Chicago's real estate, energy, and environmental communities. More than 50 national, regional and local governments around the world have rating and disclosure policies for commercial buildings.

According to the EPA, benchmarking buildings have achieved an average energy savings of 7% over a recent three year period. If all buildings in the U.S. followed this trend, over 18 million metric tons of carbon dioxide equivalents could be saved each year, the equivalent of eliminating car emissions from about 3 million cars each year. For these reasons the Montgomery County Sierra Club strongly supports this bill.

Now, I want to turn now to Bill 6-14, which would create a new Office of Sustainability within the Department of Environmental Protection, authorized to carry out a number of critical duties. These include updating the greenhouse gas emissions inventory for the County; updating the Climate Protection Plan to ensure reducing Countywide greenhouse gas emissions to a specific level at a specific rate of reduction; and issuing an annual report on whether the County is meeting these goals. So for the County as a whole, the bill sets a quantitative goal for greenhouse gas emissions and requires reports on whether the goal is being met.

But the bill also would attempt to address the County's own contribution to greenhouse gas emissions. And here we recommend adding explicit goals for the County's own operations. The bill would require the Office of Sustainability to develop energy saving plans for County buildings and the submission of reports annually on "steps taken" to implement the plans. The bill, however, would not set a goal for reducing County government energy consumption or greenhouse gas emissions, as the Climate Protection Plan does for county-wide greenhouse gas emissions. Without explicit goals, there is no basis for determining whether the steps taken are adequate and effective.

Establishing clear, quantifiable county government goals is the way to reduce government emissions and can lead to reductions in non-governmental emissions as well. New York City set

a goal to reduce its greenhouse gas emissions 30% by 2030. Its emissions dropped 19% between 2005 and 2013. But the effects of the city goal went beyond reduced city emissions. Mayor Bloomberg challenged the city's universities and hospitals to do better than the Government and reduce their emissions by 30% in 10 years. Seventeen of NYC's universities and 11 of its major hospital systems agreed to the challenge. Five of these institutions have already achieved the goal.

In Boston Mayor Menino set a goal to reduce greenhouse gases by 7% below 1990 levels by 2012. By 2011 Boston had reduced city emissions by 9%.

In 2009 the City of Phoenix completed a Climate Action Plan to reduce city greenhouse gas emissions to 5% below the 2005 levels by 2015. The city exceeded this goal in four years.

Our County can do this as well.

Recommendation #1: We recommend that Bill 6-14 set a quantifiable goal for greenhouse gas reduction in Montgomery County Government operations.

Bill 6-14 also would work to encourage greater fuel economy in the County fleet. The bill would require the Office to decide when sports utility vehicles should be replaced by more fuel-efficient vehicles and discourage excessive use of fuels in other ways. But the bill sets no specific goal for fuel reduction. Setting a goal encourages the Government to consider a range of fuel-saving behaviors, like car-pooling and telephone conferencing. As we have emphasized, a quantifiable goal provides a yardstick to measure progress. The City of Boston set a goal of reducing total fuel consumption by 5% over five years by 2012. Our County could adopt a goal like this as well.

Bill 6-14 creates a new Office of Sustainability that is tasked with wide-ranging responsibilities for guiding our County's greenhouse gas reduction implementation. In order for the Office to achieve its goals, it must be provided with adequate financial resources. Currently, most of the budget of the Department of Environmental Protection (DEP) is provided by dedicated funds for water quality and waste disposal that would be unavailable for the new Office of Sustainability.

Recommendation #2: We recommend dedicated funding to support the extra DEP positions required to undertake the Office's new duties and for any additional technical assistance that may be needed, such as consultants. A dedicated fund (comparable to that for water quality and waste disposal) for sustainability and carbon reduction work could be obtained from sources such as the energy tax.

Bill 6-14 requires the Office of Sustainability to create energy cost savings and other plans for County buildings across departments. Fostering coordination for such interdepartmental

programs strengthens their efficacy. Whether through liaisons, additional coordination at the County Executive level, or specific reporting requirements, such a mechanism must be considered to assure compliance across all departments.

Recommendation #3: We recommend that the bill (6-14) specify a mechanism for ensuring implementation of its requirements across departments.

Bill 6-14 for would also encourage residential home-owners to reduce energy use. The bill would require home sellers to provide buyers with information on possible generic home energy efficiency improvements and copies of utility bills. This information could encourage sellers to improve their energy consumption profiles or even increase the number of buyers making future energy remediations. By taking these steps, home owners will experience reduced energy and maintenance costs, as well as an improved indoor environment. Again, we must think about what type of information will most influence the market in energy efficiency. We support requiring the Office of Sustainability to evaluate whether the home seller should provide the buyer with a Home Energy Score, a quantifiable metric that was developed by the U.S. Department of Energy and would allow the buyer to compare homes along a uniform scale. Just as benchmarking facilitates comparisons between buildings to encourage energy efficiency, so too a Home Energy Score could create a market for residential energy efficiency.

Recommendation #4: In Bill 6-14, we recommend requiring the Office of Sustainability to evaluate whether the home seller should provide the buyer with a Home Energy Score for the home being marketed.

As Councilmember Berliner wrote, the Office of Sustainability created by this bill is in aid of holding ourselves accountable for climate mitigation. Conferring with members of the public who are committed to climate mitigation would aid the Office in carrying out its duties.

Recommendation #5: In order to ensure that there is regular public input, support, and accountability for the Office of Sustainability's actions and goals, we recommend that Bill 6-14 establish a public committee or advisory group. Such a group should include County residents from a variety of sectors such as civic organizations, business, labor, nonprofit organizations, health care, education and faith based organizations, to help shape carbon reduction programs that are tailored to our County.

The Montgomery County Sierra Club supports these bills. They demonstrate a recognition that Montgomery County must do its part to mitigate climate change. We urge the Council to incorporate our recommendations and enact these bills.

**Submission of Executive Committee of the Montgomery County Sierra Club Regarding the 13
Energy/Environmental Initiatives**

The Executive Committee of the Montgomery County Sierra Club provided written testimony to the Montgomery County Council on February 11, 2014, on 13 energy/environmental legislative initiatives. As we stated in oral testimony, we support these measures. We also maintain that there are ways in which these initiatives could be strengthened to more effectively fulfill their objectives. Our testimony of February 11, 2014, explains the bases for our recommendations.

Below we provide the five specific recommendations made in our testimony, and an additional sixth recommendation. In the attachment, we provide suggested legislative language for recommendations 4,5, and 6.

Recommendations:

1. We recommend that Bill 6-14 set a quantifiable goal for greenhouse gas reduction in Montgomery County Government operations.
2. We recommend dedicated funding to support the extra DEP positions required to undertake the Office's new duties and for any additional technical assistance that may be needed, such as consultants. A dedicated fund (comparable to that for water quality and waste disposal) for sustainability and carbon reduction work could be obtained from sources such as the energy tax.
3. We recommend that Bill 6-14 specify a mechanism for ensuring implementation of its requirements across departments.
4. We recommend that Bill 6-14 require the Office of Sustainability evaluate whether the home seller should provide the buyer with a Home Energy Score for the home being marketed.
5. We recommend that Bill 6-14 establish a public committee or advisory group to ensure that there is regular public input, support, and accountability for the Office of Sustainability's actions and goals. Such a group should include County residents from a variety of sectors such as civic organizations, business, labor, nonprofit organizations, health care, education and faith based organizations, to help shape carbon reduction programs that are tailored to our County.
6. We recommend that Bill 6-14 require that the Office of Sustainability apply a scoring system designed to compare local jurisdictions on energy efficiency policies and programs, such as the one developed by the American Council for an Energy-Efficient Economy (ACEEE).

This sixth recommendation is made because, in the words of ACEEE, the Scorecard “offers the beginning of a roadmap for any local government aiming to improve its ...energy efficiency through the most effective means possible; learning from other [local jurisdictions’] successes and customizing best practice strategies to suit the local context and their community’s priorities.”

Proposed legislative language is incorporated in the attachment for recommendations 4, 5, and 6.

Charles K. Nulsen, III – Speaker #5

Against Bills 2, 3, 5, and 6-14

Outline Testimony

- I. Thank you for letting me speak tonight. My name is Charlie Nulsen. I am the President and Owner of Washington Property Company, a small Bethesda based real estate company. I have worked in real estate in Montgomery County for 35 years. I am here to speak in opposition of 4 of the bills. #2, 3, 5, and 6, I disapprove more than just these 4. I have been warned that I will speak to you in English, but you will hear a foreign language. Not a great characterization from my business brothers, but bad communication is a 2 way street and I am here for the first time as my attempt to help address this issue.
- II. I want to start with big picture
 - a. Montgomery County is in a double dip recession of the likes it has never seen. Ever!
 - b. The Federal Government's economic impact on Montgomery County will be declining for the next 20 years – It is a technology thing –Montgomery County for the first time must rely heavily on private sector growth.
 - c. Our commercial tenant base is dwindling – 25% vacancy in our office market is structural.
 - d. WPC's commercial property taxes have decreased 30% in last five years and I predict another 15-20% drop in the next two because of lower rents, increased vacancy, causing lower assessments. I have commercial

properties in Bethesda, Silver Spring, Rockville, I-270; they are all at the distressed stage.

- e. Montgomery County has supplemented this loss in commercial real estate income with taxes – particularly on utilities to the tune of \$233M in 2013. Montgomery County Energy Tax accounts for approximately 30% of commercial Pepco bill and 15% of residential Pepco bill.

III. Bill 2-14 – Environmental Sustainability – Buildings Benchmarking

- a. Modelled after the District – creates 2 weeks of reporting man hours for the owner. Probably 3 times that on the Government side. D.C. owners do their own energy assessments as a matter of business. So do Montgomery County owners.
- b. Taken in the context of Montgomery County.
 - i. It will highlight to corporate tenants a Corporate Energy Tax that could be highest in the country! Montgomery County utility bills are 30% higher than DC or VA. Montgomery County collects more for the distribution of electricity than Pepco itself. What policy goal are we serving here?
 - ii. It comes at a terrible time for the commercial industry. More cost – zero pay back. “The house is on fire, but turn out the lights before you leave.”

IV. Bill 3-14 Silver LEED requirements

- a. Silver LEED for residential is very hard to obtain and further drives up the cost of rental and for-sale product.

- b. Commercial Construction is dead – inside beltway development activity is 11-1 residential / office. Why throw up another road block to commercial growth?
- c. County Buildings - ok

V. Bill 5-14 Carbon Assessment

- a. If you have a Silver LEED requirement for County Buildings why is there a need for social carbon assessment?

VI. Bill 6-14 Office of Sustainability

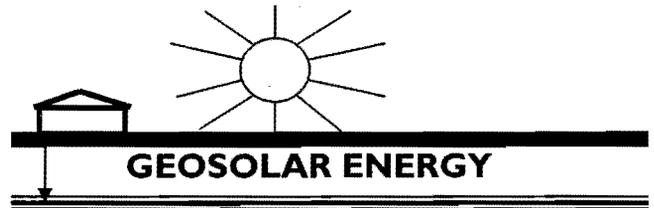
- a. Does the County, within it's current budget constraints, really have the resources to add an additional department?
- b. Sustainability is an often used term: but let's look at Montgomery County's overall direction: Decreasing commercial tax base / exploding residential base (especially rental) Is this really sustainable?

I am the poster child for a real estate owner in Montgomery County. I had a \$16M office building on 270, then Lockheed moved out. An appraisal 2 weeks ago (done by lender) gave the value at \$6M. Basically the value of the ground. But, in 2 months I will be starting my 3rd apartment project in Montgomery County, which will bring in more renters that need County services.

I don't think this path is sustainable for a healthy Montgomery County. We need balance.

To put it in another context – over the past 8 years Montgomery County has gotten an A- in environmental stewardship and an F in economic stewardship. I suggest we collectively, as a community, focus on pulling our F up to a C instead of our A- to an A so we may pass on to future generations a healthy, sustainable Montgomery County.

Thank you.



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February 9, 2014

Mr. Roger Berliner
Mr. George Leventhal
Montgomery County Council
100 Maryland Avenue
Rockville, Maryland 20850

Subject: Support of legislation for Bills 3-14, 8-14 and proposed legislation to increase renewable energy usage via Energy Guide

This letter contains background on how our company has standing to support energy legislation and it contains a proposal for legislation that we talked over with you in the past regarding how to stimulate the County's Renewable Energy industry.

1. **We are the oldest Renewable Energy Company in Montgomery County**
Company background: In 1976 I installed Maryland's first Ground Water Heat Pump (GWHP)/GeoThermal system (Geo) in my own home. Because of the Oil Embargo of 1973, America was intensely interested in energy conservation leading to publicity in the local press. This resulted in many requests from homeowners for systems in their homes, thus, GeoSolar Energy was born. Once I became the leading supplier in the three state area in the 1980's, I was appointed to the Governor's commission to study and promote GWHP during 1980 & 1981. We had numerous meetings and the overall result was to enact rules which encouraged the installation of GWHP's. I applied and received a patent for the technology and trained many installers and drillers in the area on how to install the technology.

We are the area's Bosch GeoThermal Distributor and have sold/installed over a 1,000 Geo systems and have learned a lot about the technology and the marketing of it. DOE/EPA has given Bosch an award as the most energy efficient heat pump manufacturer. Last spring, I exhibited a working system at the home show in Germantown and met George Leventhal at our booth. We continue to conduct research development and have produced some of the most advanced technology in the industry in both the commercial and residential sectors. To that end, we support bills 3-14, 8-14.

Here are our ideas for advancing the number of renewable installations and for improving energy efficiency in Maryland:

2. **Geo installs seem to have leveled out** - We estimate that the number of Geo Units installed in Maryland is probably less than 10,000 which is an insignificant number compared to the millions of total housing units. This dynamic is not likely to change without continuing legislative support.
3. **The public still does not know about Geo** - We have been promoting the technology at various shows and fairs for years but the public is still not familiar with the technology. As you know, the property tax credits in Montgomery and Howard Counties are gone and we believe that this has resulted in declining sales.
4. **Geo is easier to install in new buildings** - It is far easier to install Geo in new structures than existing buildings but the builders are not interested in promoting it since it adds complexity and they are trying to keep their own costs down – even if this approach increases operating costs to their customers.
5. **We believe builders should provide energy usage data for new single family houses and new commercial buildings** - Builders who are constructing new structures should disclose single year and 20 year estimated operating costs for renewable energy as well as other sources of energy such as air source heat pumps, gas , propane, Geo and solar if possible.
6. **Close the Loop Hole in Single Family Homes** - Homeowners spend 65% of their energy consumption on space heating, air conditioning & water heating. In 2008, the Montgomery County Council passed legislation (County Council Bill 31-07) that ensures transparency to home buyers by requiring that sellers provide an energy cost history. However, a significant gap exists: new home sales. Builders are not required to disclose what operating costs will be to homeowners even if the home is marketed as an Energy Star home. Thus, new homeowners may-be shocked to move into their new Energy Star rated and advertised home only to discover that it can actually cost over \$6,000 per year to heat, cool and produce hot water for a 4,000 square foot home.
7. **Commercial Buildings and Kentlands Community Center** - The State of Maryland awarded a competitive Game Changer Grant to our firm and the Kentlands Community to install Geo at their office building this past summer. Thus far there has been a 40% reduction in energy usage. All Montgomery County Schools that have been built or remodeled in the last 5 years have had Geo installed. The Schools expects that their payback will be 7 years. Though our focus has been on residential, we believe the County will benefit from an energy guide that shows energy usage per square foot of commercial building. For the rest of this letter we are going to focus on residential since we are more familiar with these constructions.
8. **We don't think the builders should be forced to offer Renewable Systems** - We would not force the builder to offer these technologies but have prospective buyers sign a form showing that the builder has disclosed their projected energy cost. We think that this awareness will lead home-buyers to consider energy costs and gravitate to houses with renewable energy. Over time, this will create demand for renewable systems which builders will want to offer.

9. **Many builders are installing propane** - Propane is the most expensive fuel (4 times that of Geo) in homes throughout the area. I have tried to convince builders to offer Geo to their customers but they refuse. Not only is propane an expensive hidden cost to prospective homeowners, but propane delivery trucks polluting the air. In addition, because propane is not a regulated industry, this past January saw shortages and the price doubled in some parts of the country.
10. **Every energy consuming device requires labels disclosing operating costs: except homes** - Virtually every appliance or device sold has an energy guide attached. This includes TVs, dishwashers, refrigerators, air conditioners, automobiles, etc. but not homes. Homes consume more energy than any other single consumer purchase yet there is no standardized home rating system. Home owners might think an Energy Star rating ensures clean, low-cost homes. However, this is not the case. Figure 1 contains an example of a standard Energy Guide for appliances. We recommend using this as the model for a home Energy Guide.
11. **Estimating energy cost data for a new home is easy** - I am a graduate engineer, have an MBA and know how to estimate the cost of the various fuels for any house. We have developed these tools and offer estimates to our customers. National manuals such as ACCA and ASRAE show how to calculate operating costs. AHRI rates the efficiency of all equipment including heat pumps, furnaces, air conditioners and Geo. There are several firms that could independently create an energy guide for each house for sale. Figure 2 shows a sample guide that we have prepared.
12. **Montgomery County Residents are the most educated population in the County and we think that they would positively respond to the proposed Energy Guide** - With this legislation, we believe that prospective home buyers will make the intelligent tradeoff of energy cost vs other features of prospective new homes.
13. **Cost to the County would be minimal** - The only cost to the County would be set this program up by hiring an independent consultant to develop this program and educate builders.
14. **We need your help to sponsor legislation to set this program up** - Figure 3 contains proposed legislation.

We think that this would do more to stimulate the sales of Geo systems when consumers see that Geo is the least expensive operating cost at a fraction of the cost of fuels such as propane. We would be glad to work with you to develop legislation and the framework to implement such a program.

Michael Heavener
President

Attachments
Cc: Other Montgomery County Council Members

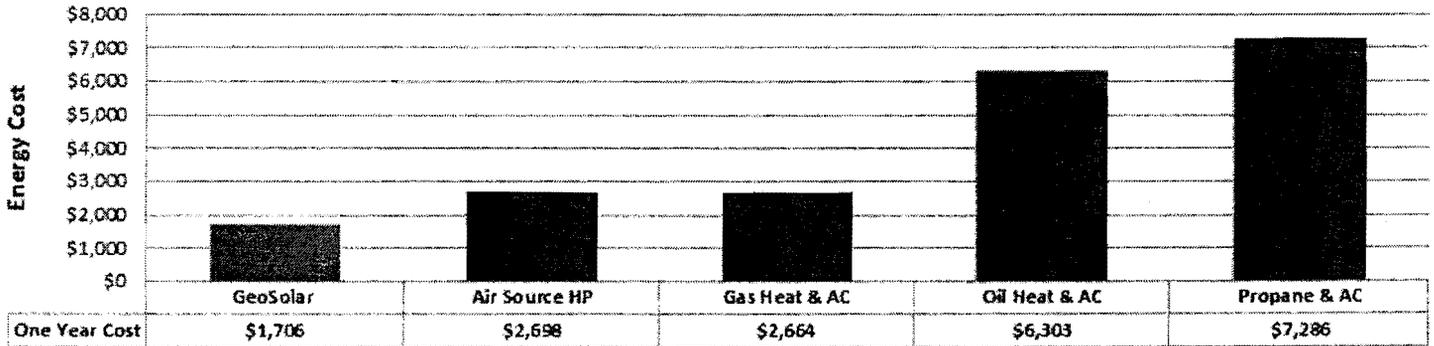
Energy Comparison

Builder: Energy Star Certified Builder

House Size: 4000 sq ft

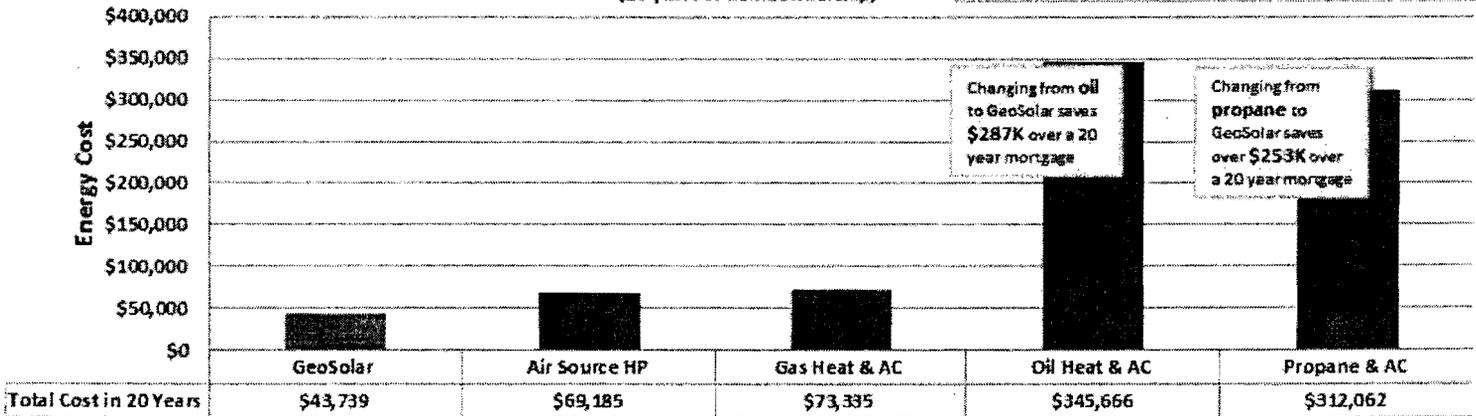
Location: Montgomery County, MD

One Year Energy Cost



Total Energy Cost (20 years of homeownership)

Did you know? Energy Star rated home builders are allowed to market their homes as Energy Star houses even when they install costly oil and propane heating systems.



Assumptions: Electricity 11.7, 2% annual increase. Gas \$1.20, 2.8% annual increase. Oil \$4.00, 9.2% annual increase. Propane \$3.50, 6.9% annual increase

Figure 2 – Proposed Home Energy Guide

Amendment to 31-07

This amendment is to expand bill 31-07 to require home builders to include an Energy Guide in marketing and sales material for new home sales. Data on the total cost of ownership for energy consumption will be included. The annual costs will be provided along with what the same house would cost with alternate energy options. The Energy Guide will include:

- Annual cost to heat and cool home with oil, propane, air source heat pumps, geothermal heat pumps
- A graphical representation and comparison of this data
- The Energy Guide will be prominently displayed in model homes and all marketing materials

Figure 3 – Proposed Legislation

Frequently Asked Questions for Homeowners

What is a Home Energy Score?

Why should I get a Home Energy Score?

What types of homes can get a Home Energy Score?

How do I get a Home Energy Score?

What does the Qualified Assessor look for during a Home Energy Score walk-through?

How is the Home Energy Score calculated?

Does a home with a poor (lower) Score always use more energy than a home with a better (higher) Score?

Does the size of my home matter?

Would my Score be the same in different parts of the country?

What's the average Score?

If a home scores a 10 does this mean the home has zero energy consumption and zero energy costs?

The Home Energy Scoring Tool calculates energy savings based on the behavior of a *typical* homeowner. Is it possible to customize the energy savings based on *actual* family size and *actual* energy consumption?

How much does an assessment cost homeowners?

How can a homeowner finance the recommended energy improvements suggested in the Home Energy Score?

How long does it take to realize savings from the Score's recommendations?

What is a Home Energy Score?

The U.S. Department of Energy's (DOE's) Home Energy Score provides information that helps you understand your home's energy efficiency and how to improve it. The Home Energy Score is comprised of three parts including: 1) the Score itself, 2) facts about your home, and 3) recommended improvements to increase your Score.

After a 1-hour energy assessment by a qualified home energy assessor ("Qualified Assessor"), you will receive a Score that rates your home on a simple 1 to 10 scale. A Score of a "1" represents the least energy efficient home and a "10" represents the most energy efficient home. The Score also shows you where your home would rank if you made the energy-saving improvements identified during your home walk-through. The Home Energy Score and associated report is generated through DOE/Lawrence Berkeley National Laboratory software called the Home Energy Scoring Tool.

Why should I get a Home Energy Score?

Your Home Energy Score will show you how your home's efficiency compares to other homes, and will identify energy improvements that will save you money and raise your Score. As an added bonus, these improvements will likely enhance how comfortable you feel in your home and may improve the air quality in your home. If you've already made home energy improvements, your Score can officially recognize your home's higher performance level—a useful indicator if you're planning on selling your home soon.

What types of homes can get a Home Energy Score?

At this time, only single family homes and townhomes can be scored. Multifamily and mobile homes cannot be scored.

How do I get a Home Energy Score?

In 2012, the Home Energy Score is only available in areas served by DOE's official Home Energy Score Partners. A list of current Partners can be found at www.homeenergyscore.gov. If you live in one of these areas, contact the Partner organization to schedule a Home Energy Score. DOE plans to continue to expand the program as new Partners come on board. If there is no Partner in your area, ask your local utility or state energy office when the Home Energy Score will be available in your area. You may also be able to find a qualifying home inspector in your area who is working under one of DOE's national Partners.

What does the Qualified Assessor look for during a Home Energy Score walk-through?

When your Qualified Assessor does the walk-through of your home, she or he will collect about 40 pieces of information. Information about your home's "envelope" (insulation, windows, etc.) as well as its heating, cooling and hot water systems will be entered into the Home Energy Scoring Tool software. Information about how residents operate the house and non-permanent house features like lighting, home electronics and appliances are not included in the Score calculation since these are not considered to be fixed assets.

How is the Home Energy Score calculated?

To calculate a home's Score, a qualified home energy assessor inputs information about a home's characteristics into an energy modeling software developed by DOE and Lawrence Berkeley National Laboratory. Based on these home characteristics, the software estimates the home's annual energy use, assuming typical homeowner behavior. The software then converts the estimated energy use into a Score, based on a 10-point scale. This scale accounts for differences in weather conditions by using the zip code to assign the house to one of more than 1,000 weather stations. The Home Energy Scoring Tool software was designed so that Scores for different homes can be compared to one another regardless of where the homes are located or the number of people currently living in those homes.

Does a home with a poor (lower) Score always use more energy than a home with a better (higher) Score?

A home with a lower Score does not necessarily use more energy than a home with a higher Score. The Home Energy Score is designed as an "asset rating" meaning that the Score reflects a home's structure and mechanical systems—for instance its insulation, air leakiness and heating and cooling equipment—not how the occupants use the home. For example, a family that sets their thermostat very low in the summer to keep cool, and never turns off lights and electronics, may still have very high energy bills even in a high-scoring, efficient home.

Homes in different parts of the country use different amounts of energy because of climatic differences. A high-scoring home in New England may still use more energy than a drafty home in Southern California just because of the difference in climate.

Does the size of my home matter?

Yes, the size of your home matters because larger homes tend to use more energy. If two houses have the same structure and equipment, but one is bigger, the smaller house will generally receive a higher (better) Score.

Would my Score be the same in different parts of the country?

Yes. You can use the Home Energy Score (in general) to compare one home to another in a different part of the country. However, you cannot use the Home Energy Score to compare your *energy bill* to another home across the country. The Home Energy Scoring Tool software takes into account the typical range of energy consumption in the region where you live and scores your home against that range. (See question "How is the Home Energy Score calculated?" answered above).

What's the average Score?

Just like there is no average home, there is no average Score. More important than knowing how a home compares to the average is seeing how it compares to other homes that you might be looking at, and most importantly how well it could score with cost-effective improvements. The Score tells you what your improved Score would be if you made the recommended energy upgrades.

If a home scores a 10 does this mean the home has zero energy consumption and zero energy costs?

No. It means that the home uses very little energy given where it is located in the country.

The Home Energy Scoring Tool calculates energy savings based on the behavior of a typical homeowner. Is it possible to customize the energy savings based on actual family size and actual energy consumption?

Not with the Home Energy Scoring Tool itself. However, additional information about the home and the homeowner's behavior can be added in through a consumer tool called "Home Energy Saver." The information that the Qualified Assessor enters into the Home Energy Scoring Tool will be available to the homeowner through Home Energy Saver. A homeowner can access that information and add fields to customize the information about how they use the home as well as data about non-fixed assets such as lighting and electronics. The Home Energy Saver lets you compare different combinations of home energy improvements and gives you the opportunity to enter in the estimated cost of improvements if you have received estimates.

How much does an assessment cost homeowners?

The cost of the Score will depend on what the market allows in that area. DOE does not control the fees charged by Qualified Assessors. The Home Energy Score will often be offered as part of other audit or inspection services, so the cost may be built into the fee for another service.

How can a homeowner finance the recommended energy improvements suggested in the Home Energy Score?

Homeowners should work with their energy improvement contractor or utility and visit www.dsireusa.org to find out about local, state, and federal incentive programs.

How long does it take to realize savings from the Score's recommendations?

The total savings estimate shown with the home's Score reflects the gross energy cost savings that would result over 10 years from completing all the recommended improvements. The recommendations page lists annual dollar savings per improvement. Homeowners should expect to realize some savings as soon as they make improvements—however, the time required to recover the cost of making the improvements will vary depending upon the individual case. Some improvements can pay off within a couple of years; others take longer. Energy improvements recommended by the Home Energy Scoring Tool will generally pay back in 10 years or less.

Visit homeenergyscore.gov for more information.

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

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EXECUTIVE SUMMARY

2013 STATE ENERGY EFFICIENCY SCORECARD

November 2013

Conversations about energy use in the United States often revolve around the need to support the growth of our national economy through expanding the energy supply. There is, however, a resource that is cleaner, cheaper, and quicker to deploy than building new supply—energy efficiency. Energy efficiency improvements help businesses, governments, and consumers meet their needs by using *less* energy, saving them money, driving investment across all sectors of the economy, creating much needed jobs, and reducing the myriad of environmental impacts of the energy production system.

Governors, legislators, regulators, and citizens are increasingly recognizing that energy efficiency is a crucially important state resource. In fact, a great deal of the innovation in policies and programs that promote energy efficiency originates in states. The *2013 State Energy Efficiency Scorecard* captures this activity through a comprehensive analysis of state efforts to support energy efficiency.

In this seventh edition of ACEEE's *State Energy Efficiency Scorecard*, we rank states on their policy and program efforts, and provide recommendations for ways that states can improve their energy efficiency performance in a variety of policy areas. The *State Scorecard* serves as a benchmark for state efforts on energy efficiency policies and programs each year, encouraging states to continue strengthening their efficiency commitments as a pragmatic and effective strategy for promoting economic growth, securing environmental benefits, and increasing their communities' resilience in the face of the uncertain costs and supplies of the energy resources on which they depend.

Key Findings

- **Massachusetts** retained the top spot in the *State Energy Efficiency Scorecard* rankings for the third year in a row, having overtaken California in 2011, based on its continued commitment to energy efficiency under its Green Communities Act of 2008. Among other things, the legislation spurred greater investments in energy efficiency programs by requiring utilities to save a large and growing percentage of energy every year through efficiency measures.
- Joining Massachusetts in the top five are **California, New York, Oregon, and Connecticut**. These states continue to comprise the group of truly leading states that have made broad, long-term commitments to developing energy efficiency as a state resource. This is the first year that Connecticut has placed in the top five since 2009.
- **Rhode Island, Vermont, Washington, Maryland, and Illinois** rounded out the top tier. This is the first year that Illinois has broken into the top ten.
- This year's most improved states were **Mississippi, Maine, Kansas, Ohio, and West Virginia**. Most-improved states made large strides in both points gained and overall ranking. These five states have made strides in a variety of areas. In 2013, the Mississippi legislature passed laws setting a mandatory energy code for commercial and state-owned buildings, and began implementing enhanced lead by example programs. Efforts to ramp up utility programs to meet energy efficiency resource standard (EERS) targets resulted in dramatically increased electricity savings in Ohio (even despite significant pushback efforts). Both Kansas and West Virginia committed to improving building codes, significantly increasing their scores in that policy area. Maine's rise in the ranks is due to legislation passed in June 2013 that returned full funding to Efficiency Maine for implementation of energy efficiency programs after several years in which programs had been under-funded.

- Other states have also made recent concentrated efforts related to energy efficiency. **Arkansas, Indiana, and Pennsylvania** continued to reap the benefits of their EERS policies, which led to substantially higher electricity efficiency program spending and savings compared to what we reported in the *2012 State Energy Efficiency Scorecard*. **Connecticut** also passed a major energy bill in June 2013, calling for the benchmarking of state buildings, expanding combined heat and power (CHP) programs, and doubling funding for energy efficiency programs.
- The leading states in utility-sector energy efficiency programs and policies, which are covered in Chapter 2, were **Massachusetts, Vermont, and Rhode Island**. All three of these states have long records of success and continued to raise the bar on the delivery of cost-effective energy efficiency programs and policies.
- Annual budgets for utility-sector natural gas efficiency programs totaled \$1.3 billion nationally in 2012, an 18% increase over the previous year. Electric program budgets rose slightly to \$5.98 billion in 2012.
- Savings from electric efficiency programs in 2011 totaled approximately 22.9 million MWh, a 20% increase over the previous year. Gas savings are reported for the first time at 232.3 million therms (MMtherms).
- Twenty-six states have adopted and adequately funded an EERS, which sets long-term energy savings targets and drives investments in utility-sector energy efficiency programs. The states with the most aggressive savings targets included **Arizona, Massachusetts, New York, and Rhode Island**.
- The leading states in building energy codes and compliance—covered in Chapter 4—were **California, Washington, and Rhode Island**. During the past year, seven states adopted the latest iteration of building energy codes.
- **California and New York** led the way in energy-efficient transportation policies. California's requirements for reductions in greenhouse gas (GHG) emissions have led it to identify several strategies for smart growth, while New York is one of the few states in the nation to have a concrete vehicle miles traveled reduction target.
- Twenty states fell in the rankings this year, due to both changes in our methodology and substantive changes in their performance. **Idaho** fell the furthest, by nine spots, largely because it did not keep up with peer states in utility efficiency spending and savings. **Wisconsin** dropped six spots due to a significant drop in energy savings realized by the state's efficiency program.

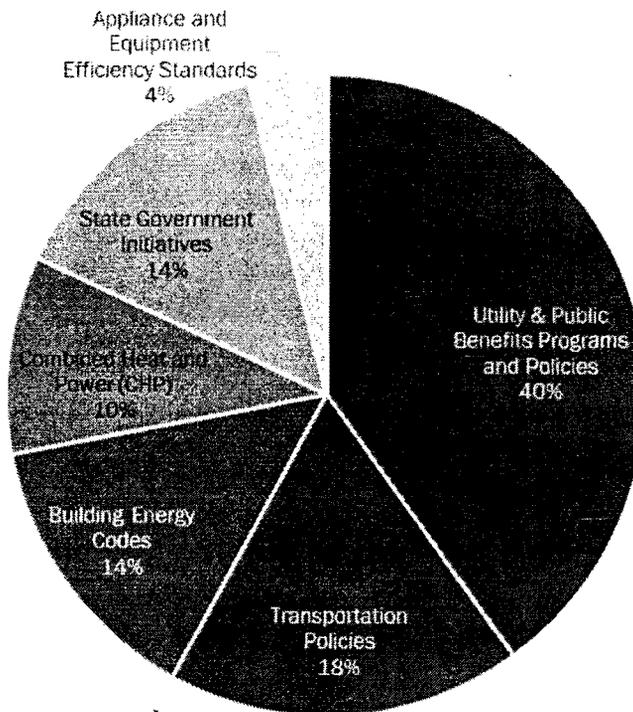
Methodology

The *2013 State Energy Efficiency Scorecard* provides a broad assessment of policies and programs that improve energy efficiency in our homes, businesses, industries, and transportation systems. The *State Scorecard* examines the six policy areas in which states typically pursue energy efficiency: utility and "public benefits" programs and policies; transportation policies; building energy codes and compliance; CHP policies; appliance and equipment standards; and state government-led initiatives around energy efficiency. Figure ES-1 provides a percentage breakdown of the points assigned to each policy area.

The baseline year against which we assessed policy and program varies by policy area. Most scores were based on policies in place as of August 2013. In Chapter 2, Utility and Public Benefits Programs

and Policies, however, we scored states based on data from 2012 and 2011, the latest years in which data were available for our metrics.

Figure ES-1. Percentage of Total Points by Policy Area



We reached out to each state utility commission to review spending and savings data for the customer-funded energy efficiency programs presented in Chapter 2. In addition, state energy officials were given the opportunity to review the material in ACEEE's State Energy Efficiency Policy Database (ACEEE 2013) and to provide updates to the information scored in Chapters 3 (Transportation), 4 (Building Codes), and 6 (State Government–Led Initiatives).

This year we updated the scoring methodology in three policy areas to better reflect potential energy savings, economic realities, and changing policy landscapes. In Chapter 2, Utility and Public Benefits Programs and Policies, we found that the median budget for both electricity and natural gas efficiency programs had risen significantly this year, and we updated our allocation of points to reflect this increase in spending. We similarly increased the stringency of our scoring for electricity savings, reflecting the rising savings targets of many states as they ramp up their efficiency programs. Notably, we also scored states on their natural gas savings this year as these programs continue to make up a larger portion of efficiency portfolios.

We have adjusted our scoring criteria for building energy codes in Chapter 4 to reflect ACEEE's increased effort to collect data on compliance activities. As in the past, five (5) points were awarded for code stringency. This year, the remaining two (2) points were awarded for specific compliance activities, including policy drivers for compliance such as a strategic compliance plan, and performance metrics such as completion of a baseline study, presence of an active stakeholder advisory group, and utility involvement in compliance.

In Chapter 6, State Government–Led Initiatives, we included an additional category for laws requiring disclosure of buildings' energy use. In the past, we scored disclosure laws in combination with

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financial incentives for energy efficiency. To account for an increased emphasis on building energy disclosure by policymakers, we chose to score disclosure laws independently from other state-offered incentives, and reallocated points accordingly. This year, one (1) point was awarded to states with commercial and residential disclosure rules. States could receive up to two and one-half (2.5) points for customer financial incentive programs. Data on research and development at the state level are inconsistent, so we removed one-half (0.5) point from this category, awarding states with at least three research and development programs one and one-half (1.5) points.

Results

Figure ES-2 shows states' rankings in the *2013 State Energy Efficiency Scorecard*, dividing them into five tiers for ease of comparison. Table ES-1 provides details of the scores for each state. States could score a maximum of 50 points, allocated across six policy areas. An identical ranking for two or more states indicates a tie (e.g., New Jersey, Arizona, Michigan, and Iowa all rank 12th). Although we provide individual state scores and rankings, the difference between states is both easiest to understand and most instructive in tiers of roughly ten states, as the point differential between groups of states is generally much larger than between individual states.

Figure ES-2. 2013 State Scorecard Rankings Map

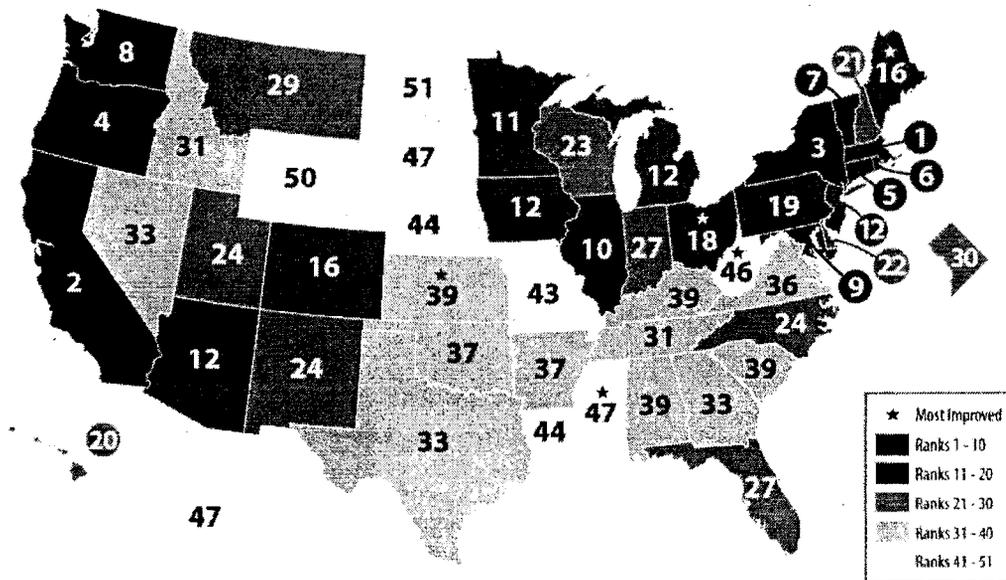


Table ES-1. Summary of States' Total Scores

Rank	State	Utility & Public Benefits Programs & Policies (20 pts.)	Transportation Policies (9 pts.)	Building Energy Codes (7 pts.)	Combined Heat & Power (5 pts.)	State Government Initiatives (7 pts.)	Appliance Efficiency Standards (2 pts.)	TOTAL SCORE (50 pts.)	Change in rank from 2012	Change in score from 2012
1	Massachusetts	19	7.5	5.5	4.5	5.5	0	42	0	-1.5
2	California	15	7.5	7	3	6.5	2	41	0	0.5
3	New York	16	8	5.5	2.5	6	0	38	0	-1
4	Oregon	14.5	7	5.5	3.5	5.5	1	37	0	-0.5
5	Connecticut	14	5.5	5.5	4	6	1	36	1	1.5
6	Rhode Island	18.5	5.5	6	2	3	0.5	35.5	1	2.5
7	Vermont	18.5	4.5	5.5	2	4	0	34.5	-2	-1
8	Washington	13	7	6	2.5	4.5	0.5	33.5	0	1.5
9	Maryland	8.5	6	5.5	2	5	0.5	27.5	0	-2.5
10	Illinois	9.5	4	5.5	2	5	0	26	4	1
11	Minnesota	15	2	3	1	4.5	0	25.5	-2	-4.5
12	New Jersey	8.5	6	4	2.5	3.5	0	24.5	4	0
12	Arizona	12	2.5	3.5	2.5	3.5	0.5	24.5	0	-1
12	Michigan	11	3	4	2	4.5	0	24.5	0	-1
12	Iowa	12	2	5.5	1.5	3.5	0	24.5	-1	-2
16	Maine	10.5	6	2.5	2	2	0	23	9	4
16	Colorado	10.5	2	4.5	1.5	4.5	0	23	-2	-2
18	Ohio	11	0	4	3.5	4	0	22.5	4	3
19	Pennsylvania	6	6	4	1.5	4.5	0	22	1	0.5
20	Hawaii	10	2.5	4	0.5	3.5	0	20.5	-2	-1.5
21	New Hampshire	8.5	1	4.5	1.5	4	0.5	20	-3	-2
22	Delaware	2.5	5.5	4.5	1.5	4.5	0	18.5	5	0
23	Wisconsin	7.5	1	3.5	2	4	0	18	-6	-4.5
24	New Mexico	7	2	4	1.5	3	0	17.5	3	-1
24	North Carolina	4.5	2.5	4	2	4.5	0	17.5	-2	-2
24	Utah	7.5	0.5	4.5	1.5	3.5	0	17.5	-3	-2.5
27	Indiana	8.5	0	3.5	1.5	2	0	15.5	6	1.5
27	Florida	2.5	4.5	4.5	1	3	0	15.5	2	-2
29	Montana	6	1	4	0.5	3.5	0	15	-4	-4
30	District of Columbia	3.5	3.5	3.5	1	2	0.5	14	-1	-3.5
31	Tennessee	2	2.5	2.5	1	5.5	0	13.5	1	-1.5
31	Idaho	5.5	0	4.5	0	3.5	0	13.5	-9	-6
33	Georgia	1.5	3	4	0.5	3.5	0.5	13	0	-1
33	Texas	2	1	4	2	3.5	0.5	13	0	-1
33	Nevada	5	0	4.5	1	2.5	0	13	-2	-3.5
36	Virginia	1	2.5	4	0.5	4.5	0	12.5	1	-0.5
37	Oklahoma	4	0.5	4	0	3.5	0	12	2	1
37	Arkansas	6	0	3.5	0.5	2	0	12	0	-1
39	Kansas	0.5	1	4	1	5	0	11.5	6	3
39	Alabama	2.5	0	4	0.5	4.5	0	11.5	1	1
39	South Carolina	3	1	4	0.5	3	0	11.5	1	1
39	Kentucky	3.5	0	3.5	0	4.5	0	11.5	-3	-2
43	Missouri	4	0	3	0.5	3	0	10.5	0	1.5
44	Louisiana	2.5	1	3.5	0.5	2	0	9.5	-1	0.5
44	Nebraska	1	0	5	0	3.5	0	9.5	-2	0
46	West Virginia	1	1.5	4	1	1.5	0	9	3	3
47	Mississippi	1	0.5	3	0	3.5	0	8	4	5.5
47	Alaska	0	1	1.5	0.5	5	0	8	-1	0
47	South Dakota	4	0	1	1	2	0	8	-1	0
50	Wyoming	2	0	2	0	1.5	0	5.5	-2	-1
51	North Dakota	0.5	1	1.5	0.5	0	0	3.5	-1	-0.5

Strategies for Improving Energy Efficiency

Put in place, and adequately fund, an energy efficiency resource standard or similar energy savings target. These policies establish specific energy savings targets that utilities or independent statewide program administrators must meet through customer energy efficiency programs. They serve as an enabling framework for cost-effective investment, savings, and program activity. EERS policies can have a catalytic effect on increasing energy efficiency and its associated economic and environmental benefits.

Examples: Massachusetts, Arizona, Hawaii, Vermont

Adopt updated, more stringent building energy codes, improve code compliance, and enable the involvement of efficiency program administrators in code support. Buildings consume more than 40% of total energy in the United States, making them an essential target for energy savings. Mandatory building energy codes are one way to ensure a minimum level of energy efficiency for new residential and commercial buildings.

Examples: California, Rhode Island, Illinois, Mississippi

Adopt stringent tailpipe emissions standards for cars and trucks, and set quantitative targets for reducing vehicle miles traveled. Like buildings, transportation consumes a substantial portion of total energy in the United States. Although new federal fuel economy standards have been put in place, states will realize greater energy savings and pollution reduction if they adopt California's more stringent tailpipe emissions standards (a proxy for reducing energy use).

Examples: California, New York, Massachusetts, Oregon

Treat CHP as an energy efficiency resource equivalent to other forms of energy efficiency. Many states list CHP as an eligible technology within their EERSs or renewable portfolio (RPS) standards, but they relegate it to a bottom tier. ACEEE recommends that CHP be given equal footing, which requires the state to develop a specific methodology for counting energy savings attributed to the utilization of CHP. If CHP is allowed as an eligible resource, EERS target levels should be increased to take into account the CHP potential.

Example: Massachusetts

Expand state-led efforts and make them visible. Efforts may include putting in place sustainable funding sources for energy efficiency incentive programs; leading by example by incorporating energy efficiency into government operations; and investing in energy efficiency-related research, development, and demonstration centers. States have many opportunities to lead by example, including reducing energy use in public buildings and fleets, demonstrating the market for energy service companies that finance and deliver energy-saving projects, and funding research centers that focus on breakthroughs in energy-efficient technologies.

Examples: New York, Maryland, Alaska