T&E ITEM 2
March 24, 2014
Worksession

MEMORANDUM

TO: Transportation, Infrastructure, Energy and Environment Committee

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

SUBJECT: **Worksession:** Bill 8-14, Buildings – County Buildings – Clean Energy Renewable Technology

Bill 8-14, Buildings – County Buildings – Clean Energy Renewable Technology, sponsored by Councilmembers Berliner, Floreen, Riemer, Elrich, Andrews, and Navarro, was introduced on January 28, 2014. A public hearing was held by the Committee on February 11. At the hearing, a representative of the Executive expressed the Executive's general support for the package of environmental initiatives (©19). Council staff will transmit any specific comments on these bills from the Executive when they are received.

Bill 8-14 would require new or extensively remodeled county buildings to generate at least 1 kilowatt of renewable energy for every 1,000 square feet of floor area. Current County law does not set specific standards for the use of renewable technology in County buildings. Bill 8-14 was modeled after a recently-enacted Prince George's County law.

Councilmember Berliner explained the purpose of this Bill in his January 14 memorandum describing his proposed energy/environmental package (©8).

The Fiscal and Economic Impact statement for this Bill will be transmitted after March 17 (see ©7).

Executive Amendment

The Department of General Services submitted a proposed amendment attached at ©34. The Department's amendment would:

- delete the substantive provision of Bill 8-14 that requires a contract to building or extensively modify a County building to use clean renewable energy technology;
- require the Executive to propose a Clean Energy Plan by a Method 1 Regulation[1] that would specify the amount of onsite clean energy to be installed on new or existing County buildings; and
- require the Executive to set a target for clean energy installed on County facilities.

[1] Under Code §2A-15(f), a Method 1 regulation is not adopted until the Council approves it.

Other Issues for Committee Discussion

If the Committee does not support the amendment proposed by DGS, the Committee should discuss these remaining issues.

Should Bill 8-14 be a mandate or goal? The Montgomery County Chapter of the US Green Building Council (USGBC) urged that the requirements of Bill 8-14 be a goal, not a mandate. They argued that most buildings would not be able to meet this goal with other building regulations and that the cost ratio of meeting the renewable requirement to the total project cost is high. Council staff notes the cost limit in Bill 8-14, generally speaking, is limited to 2% of the total cost of the project. The County chapter of the USGBC is correct in that funds for capital projects are limited and would compete with other County projects. This is a policy consideration for the Committee. If the Committee shares similar concerns, one option would be to provide a waiver mechanism where the Director could waive the clean renewable energy technology requirement if the Director finds that including such technology would be cost prohibitive.

What type of renewable energy technologies should be permitted? As noted above, Bill 8-14 would require a newly constructed or extensively remodeled county building[2] to generate at least 1kw of renewable energy for every 1,000 square feet of floor area. The American Institute of Architects, Potomac Valley Chapter assumed that the bill required that renewable energy be provided by photovoltaic generation and urged that other on-site energy technologies should be permitted. As drafted, "clean renewable energy technology" would encompass more than photovoltaic generation. "Clean renewable energy technology" would be defined, in part, as "a technology or system that uses geothermal heating and cooling, solar hot water heating, wind power, solar electricity generation, or solar thermal generation.

Should certain buildings be exempt from Bill 8-14? Maryland-National Capital Park and Planning Commission (M-NCPPC) urged the Council to exempt small buildings and historic buildings from the bill. Council staff is unsure why small buildings should automatically be exempt from the clean technology requirements. If the improvements are not cost effective, or exceed 2% of the cost of the project, clean energy technology would not be required. Regarding historic buildings, there may be ways to incorporate clean energy technology while retaining the historic nature of the building. Rather than exempting all historic structures from the bill, Council staff suggests amending Bill 8-14 to allow the Director to waive the requirements if clean energy technology cannot be incorporated while retaining the historic nature of the building.

Implementation in County Agencies M-NCPPC recommended the Council amend the definition of "Director" to include either the Director of DGS or the Director of the agency managing the covered building. M-NCPPC note that the Parks Department has County-financed buildings on parkland, but DGS does not play a role managing or benchmarking the buildings.

Council staff clarifying amendments Council staff recommends the following 2 amendments:

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[2] It is not clear at this point if the County could apply Bill 8-14 to certain agencies such as Montgomery County Public Schools; Council staff continues to research this issue.

- On page 3, amend lines 31-37 to read:
  Any contract to build or extensively modify a County building must require the use of clean renewable energy technology. Except as provided in subsection [[(b)]] (c), a covered County building must have installed at least 1 kilowatt of clean renewable energy technology for every 1,000 square feet of gross floor area. This requirement may be met by using ground mounted clean renewable energy technology on or directly adjacent to the building lot or obtained in accordance with §8-57.

- On page 4-5, amend lines 85-86 to read:
  [[(a)]] (b) The Department must submit an annual report to the County Council and County Executive by April 1 each year describing:
    (1) the added clean renewable energy technology generation by each project;
    (2) the revenues and expenditures of each project;
    (3) each project supported by the Program; and
    (4) the annual savings to the County's utility costs from each supported project.

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Bill No. 8-14
Concerning: Buildings – County Buildings – Clean Energy Renewable Technology
Revised: 12/12/2013 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, Riemer, Elrich, Andrews, and Navarro

AN ACT to:

(1) require use of certain clean energy renewable technology in the construction or extensive modification of certain County buildings;
(2) require the Director of the Department of General Services to conduct a clean renewable energy technology project feasibility assessment on certain County buildings; and
(2) generally amend County law regarding building, energy, and environmental policy.

By adding
Montgomery County Code
Chapter 8, Buildings
Article VIII, Clean Renewable Energy Technology
Sections 8-54, 8-55, 8-56, 8-57, 8-58

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

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

Sec. 1. Article VIII (Sections 8-54, 8-55, 8-56, 8-57, 8-58) is added to Chapter 8 as follows:

Article VIII. Clean Renewable Energy Technology.

8-54. Definitions.

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

Clean renewable energy technology means a technology or system that uses geothermal heating and cooling, solar hot water heating, wind power, solar electricity generation, or solar thermal generation. *Clean renewable energy technology* includes passive solar energy generation that reduces energy use from other sources by at least 20%.

Cost effective means where the cost of installing clean renewable energy technology on a covered County building is not projected to exceed the projected cost savings of the installation within the first 15 years after the installation of the technology begins.

County building means any building for which the County government finances at least 30% of the cost of:

(1) construction, for a newly constructed building; or

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

Covered County building means a newly constructed or extensively modified County building.

Department means the Department of General Services.

Director means the Director of the Department or the Director's designee.

Extensively modify or modified refers to any structural modification which alters more than 50% of a building's gross floor area, as shown on an application for a building permit.

Projected total cost means the estimated cost required to construct or renovate a building, including any building system, interior finish, site

infrastructure, connection to any existing utility, landscaping, and sidewalk and parking lot built for the immediate use of occupants of the building.

8-55. Clean energy renewable technology required.

(a) Any contract to build or extensively modify a County building must require the use of clean renewable energy technology. Except as provided in subsection (b), a covered County building must have installed at least 1 kilowatt of clean renewable energy technology for every 1,000 square feet of gross floor area. This requirement may be met by using ground mounted clean renewable energy technology on or directly adjacent to the building lot.

(b) Each appropriation to build or extensively modify a County building must include an additional amount of 2% to the projected total cost funded by the County, as shown in the project description form, subject to subsection (c).

(c) The Director must limit the size of the clean renewable energy technology installation if the initial cost of the installation is projected to exceed 2% of the projected total cost of the new building or renovation. However, if the Director transfers expenditures to the project under subsection (a), the initial cost of the installation must not exceed 4% of the projected total cost.

8-56. Project feasibility assessment.

(a) The Director must perform a feasibility assessment to find whether a covered County building can be retrofitted cost effectively to include clean renewable energy technology. The Director may consider other factors, including:

(1) the cost to the County;

(2) any safety or security issue;

(3) any cost savings from the installation;

(4) any clean energy job creation;

(5) the clean renewable energy technology capacity of the building;

(6) environmental benefits;

(7) the technological feasibility of a retrofit; and

(8) applicable zoning requirements.

(b) If the Director finds that installing clean renewable energy technology on a covered County building would not be cost effective, the Director must transfer expenditures from the covered County building project equivalent to 2% of the projected total cost for use in another applicable project, unless no applicable project is approved in the Capital Improvement Program. The County Council must approve any fund transfer between projects under this Section by resolution.

8-57. Alternative financing.

(a) An alternative financing arrangement which allows leveraging of federal, state, utility, and other incentives, including any grant, lease-purchase agreement, power purchase agreement, or energy savings performance contract, may meet the clean renewable energy technology requirement under this Article.

(b) The purchase of Renewable Energy Credits does not meet the clean renewable energy technology requirement under this Article.

8-58. Administration; reporting.

(a) The Department must administer this Article using accepted principles of sound accounting and fiscal management.

(a) The Department must submit an annual report to the County Council and County Executive by April 1 each year describing:

(1) the added clean renewable energy technology generation by each project;

(2) the revenues and expenditures of each project;

(3) each project supported by the Program; and

(4) the annual savings to the County's utility costs from each supported project.

Sec. 2. Effective date. Article VIII, inserted by Section 1 of this Act, applies to each new or major renovation public building project for which an application for a building permit is filed on or after January 1, 2014.

Approved:

Craig L. Rice, President, County Council Date

Approved:

Isiah Leggett, County Executive Date

This is a correct copy of Council action.

Linda M. Lauer, Clerk of the Council Date

LEGISLATIVE REQUEST REPORT

Bill 8-14
Buildings – County Buildings – Clean Energy Renewable Technology

DESCRIPTION:	Would require new or extensively remodeled county buildings, to generate at least 1 kilowatt of renewable energy for every 1,000 square feet of floor area.
PROBLEM:	Current County law does not set specific standards for the use of renewable technology in County buildings/
GOALS AND OBJECTIVES:	To achieve greater use of clean renewable technology in the construction or extensive modification of County buildings.
COORDINATION:	Department of General Services, Office of Management and Budget
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.

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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

MONTGOMERY COUNTY COUNCIL
ROCKVILLE, MARYLAND

ROGER BERLINER
COUNCILMEMBER
DISTRICT 1

CHAIRMAN
TRANSPORTATION, INFRASTRUCTURE
ENERGY & ENVIRONMENT COMMITTEE

January 14, 2014

Dear Colleagues,

Next week I will be introducing a package of 13 energy/environmental measures that are designed to ensure that Montgomery County remains at the sustainability forefront. I would be pleased to have you cosponsor some or all of these measures.

These measures focus on renewable energy, energy efficiency, transportation, and government accountability. I have attached a fact sheet that gives a brief description of each of them, and of course would be happy to discuss any of them in greater detail should you have questions.

I was inspired by our Council's decision to assert its leadership in the context of reducing the gap in income disparities by passing a local minimum wage law. I think all of us appreciate that the federal government has become so dysfunctional that we can expect little progress on many of the issues we care deeply about. Indeed, Bruce Katz of Brookings recently described the federal government as a "large health insurance company with an army." His thesis, which I share, is that our governing paradigm has shifted from a top down led by the federal government to a bottom up led by local governments like ours.

I say all of this because we need to do more if we are to address climate change. It is obviously not a hoax and we know what we need to do to address it. We need to use less energy and cleaner energy. Period. This package of bills is taken in many instances from what other leading jurisdictions are doing – from Chicago to Seattle to California and New York states. They are a mix of leading by example, rewarding green businesses, supporting market forces, adopting more exacting standards, and holding our county government accountability.

Holding ourselves accountable is important. When the Council passed a similar package in 2008, we tasked a Sustainability Working Group with the principle responsibility for guiding our County to achieve our formal goal of reducing greenhouse gas emissions by 80 percent by 2050. It is time now to make this a core government

responsibility, and this package includes a measure that will create an Office of Sustainability within DEP whose principal responsibility will be to monitor how we are doing and to help develop the policies and practices that will get us to where we need to be.

I hope you will join me in making sure Montgomery County burnishes its reputation as a community that embraces sustainability at our core.

Sincerely,

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, wl70@icloud.com

cc:
Loreen Arnold, AIA-PV President 2014, larnold@ktgy.com
Scott Knudson, AIA; AIA-PV Past-President 2013, sdgknudson@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

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.

AIA Potomac Valley
A Chapter of the American Institute of Architects

ATTACHMENT A

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.

(12)

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, Construciton 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.

AIA Potomac Valley

A Chapter of the American Institute of Architects

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, wl70@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

Montgomery County

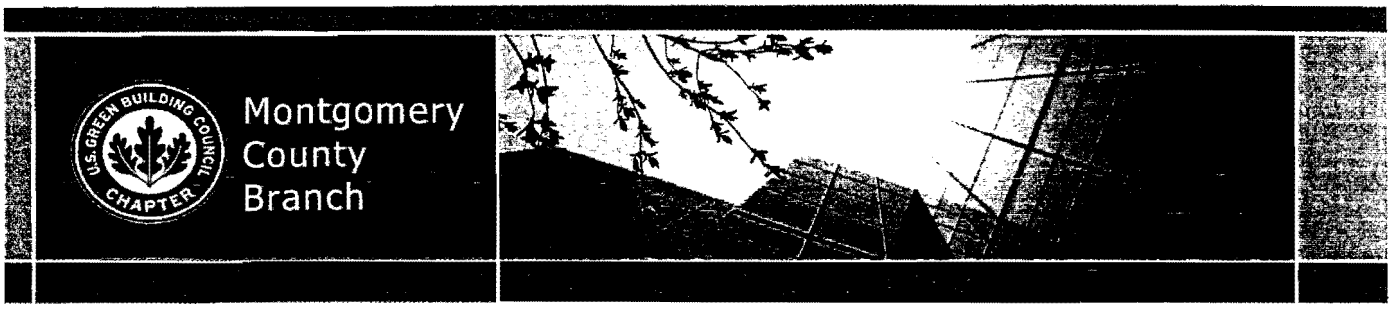
Finding ways to better share monthly aggregated energy data with building owners/operators is critical to understanding and improving building performance across our region. But it's easier said than done, since it requires cooperation among industry stakeholders. On October 30, the USGBC-NCR Montgomery County Branch convened a group of local stakeholders, including building owners, utilities, governments and advocacy groups, to discuss ways to improve the flow of building data in Montgomery County, MD.

There are several structural constraints and obstacles that prevent utilities from providing actionable energy data to building owners. In many cases, utilities across the country do not have the technical infrastructure or staff resources in place to provide aggregate energy usage data to building owners. However, building owners have market-established tools at their disposal, like the Environmental Protection Agency's Portfolio Manager, which they can use to track building performance. Additionally, utilities must meet rules and regulations of state public utility commissions, which can unintentionally create additional barriers to how utilities are able to share data. Many of these restrictions are related to privacy concerns associated with sharing individual tenant data.

The Montgomery County Energy Summit, sponsored by the JBG Companies, Pepco and Boland, brought experts together to discuss the barriers and explore solutions for improving access to aggregated energy building data. Access to this critical data will empower building owners to make smarter energy decisions and better enable benchmarking of public and commercial properties, ultimately helping improve performance and reduce energy usage. The summit brought together local utilities and commercial real estate owners and operators, including local staff from Pepco, Baltimore Gas & Electric, The Tower Companies, Brandywine Realty Trust, Akridge, and First Potomac. Additionally, the summit drew several Maryland state and Montgomery County officials and local advocacy groups to discuss the current barriers to sharing energy data and opportunities to improve this process.

Dialogues like the one in Montgomery County show that private sector stakeholders can have a unified voice in support of improved data sharing policies. While the County is considering a benchmarking and disclosure law, USGBC-NCR's Montgomery County Branch believes proactive conversations on data access between all interested parties is the most effective way to ensure cooperation and the establishment of best practices in pursuit of energy efficiency.

For that reason, the Branch has formed a working group to continue discussing opportunities to improve access to utility data. For more information on becoming part of the group, please contact us.



ENVIRONMENTAL BILLS (2-14 THROUGH 14-14) RESPONSES:

The USGBC NCR Montgomery County Branch has had the opportunity to review the packet of energy and environmental measures proposed by Councilmember Roger Berliner and many of his colleagues.

We believe revised language within the thirteen proposed bills is required to provide clarity, using lessons learned from other jurisdictions, which have hastily adopted legislation without fully understanding the fiscal impact or administrative barriers. Over time those jurisdictions have been forced to correct issues and have consequently wasted resources, while frustrating residents and businesses. While some of the proposed legislation may have a small impact, others might have a much larger price tag.

The true impact on Montgomery County for implementing the proposed legislation should be assessed taking into account the diversity of our county. We have environments that range from urban to rural. The future plans for growth incorporating recommendations from organizations and agencies such as USGBC, Maryland Energy Administration (MEA), Department of Energy (DOE), and many others that are well versed in these issues. We recommend the County Council allow time for discernment and discussion of concerns among its stakeholders prior to taking a position on these bills.

In regards to the specific proposed bills we have the following comments:

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

The USGBC NCR Montgomery County Branch had an Energy Data Sharing Summit in October 2013 to discuss this issue with many key stakeholders like County, State, and Federal Agencies, utilities, property owners, technical experts, other local jurisdictions, and industry professionals. Through this forum we have identified the following issues to be addressed prior to implementing required benchmarking of buildings in our county:

- Benchmarking requirements should first apply to County owned and leased buildings and the information should be publically available. Once the county can show they have worked through administrative issues then it would be appropriate to roll out to the private sector.
- Energy auditing and retro commissioning is expensive and the industry does not have a pool of adequately trained professionals to fulfill this requirement. However, new data access & analysis technology will reduce the cost of audits and retro commissioning and facilitate ongoing virtual building performance monitoring.
- Data provided by the utility companies must be in a clear and consistent format and be flexible to allow for automatic uploading to uniform platform such as ENERGY STAR, DOE/ASHRAE smart meter interfaces, etc.
- The benefits to data access are known by the industry and the first step is getting the needed data from the utilities. Utility commissions and elected officials should coordinate on data access so that utilities and building owners have clarity on how data should be tracked and presented to eliminate privacy concerns and still provide usable data to owners. Condo communities with one master meter are common in the County. Enhanced access to meter data would be helpful, but many have expressed interest in cost effective solutions to sub-metering.
- Pepco is currently aware of this issue and is providing aggregated data, directly uploaded to ENERGY STAR in the District of Columbia, following the Sustainable DC II Legislation.

The key findings regarding Bill 2-14 is there will be a fiscal impact for businesses in terms of benchmarking and the required energy audit. The cost to property owners should be assessed and determined if the financial burden is reasonable prior to passage of the bill. There may be opportunities for incentives to help with implementation for small businesses in our county. They have not taken advantage of existing state incentive dollars due to a distrust of the current program. This is attributed to the complexity of the process and experiences of other business owners where misinformation and errors have increased cost instead of saving money.

Bill 3-14, Buildings - Energy Efficiency - Energy Standards

- The bill should focus on moving toward a sustainability code solution like the IgCC or ASHRE 189.1 with modifications to coordinate with current codes and regulations.
- Offering a multiple compliance path option between LEED V3, IgCC, or ASHRE 189.1 should be allowed until the codes have been better coordinated.
- Significant issues have arisen in jurisdictions where new codes conflicted with existing regulations.
- The County should conduct an industry impact study to fully understand the economic impact to businesses, our community and county agencies. The intent of this regulation should show a leadership path for a successful sustainable future.

Bill 4-14 Streets and Roads - County Street Lights

- The county should allow an appropriate engineering solution for each location, along with Life Cycle Assessment, to determine the most effective lighting solution in lieu of a straight LED requirement.
- This alternative allows for site specific engineering solutions, for location effectiveness and efficiency, not merely complying with a regulatory requirement.
- Lighting technology is consistently changing and any legislation should be adaptable to the future changes.

Bill 8-14 Buildings - County Buildings - Clean Energy Renewables

- This bill should be a goal; not a mandate. A better solution is to consider the life cycle cost effectiveness of this requirement and how it would be implemented by county capital construction and operated and maintained by the county staff.
- Most buildings will not be able to meet this goal along with other building regulations; such as storm water management, HVAC systems, etc.
- Long term monitoring and maintenance of these systems is challenging and there is a high risk of failure.
- The cost ratio of meeting the renewable requirements to the total project cost is very high and competes with overall county efforts to limit capital building spending, posing financial problems for many county projects.
- County agencies have experience with Power Purchase Agreement (PPA) where a private entity owns and operates much larger systems. Although this has met with some success, the current PPA financial climate has made building size systems less than attractive to PPA providers.
  An alternative compliance path may be to allow purchasing renewable energy credits (REC), which are currently available and comply with the current legislated mandate. The county agencies are currently required to purchase at least 20% of their annual electrical load in REC's.

Thank you for the opportunity to comment on these bills. We may have further comments as additional discussions and comments identify other impacts.

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.

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[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.

March 12, 2014

Ms. Amanda Mihill, Legislative Attorney
Montgomery County Council
100 Maryland Avenue
Rockville, Maryland 20805

RE: County Council Bills on Sustainability and Energy Conservation

Dear Ms. Mihill,

Thank you for the opportunity to review and comment on the 13 County Council Bills for Sustainability and Energy Conservation.

I have attached a copy of our own Sustainability Practice 6-40 for your information. M-NCPPC and the Department of Parks are committed to environmental stewardship. Our organization has employed energy conservation measures in many of our parks, facilities and operations over the past several years. These measures include building temperature control, high efficiency HVAC units, low consumption lighting and an aggressive recycling program. I am proud of our staff and their achievements in reducing the environmental footprint of our extensive operations. The attached Practice 6-40 provides documentation of our commitment to these important issues. We also provide cost savings data in an annual energy conservation report available to the County Council, and our progress has been significant.

For clarification on the pending legislation, please consider the following questions and comments:

2-14

- If we own land, but not buildings, will benchmarking be provided by building owners? For example, aquatic centers or community centers located on park property might be affected.
- Does the benchmarking apply to buildings that are to be demolished within 4 years?

8-14

- We recommend that historic buildings as well as small buildings, such as restroom buildings and storage sheds, be exempt. Language to define limits on the size or purpose of the buildings affected is strongly recommended.
- If there are several buildings in a facility, would the requirements apply to every building contained within the facility? A definition of "facility" may be required here.
- If the cost of renewable energy exceeds 2% of the total construction cost, funding equivalent to 2% of the cost may be transferred to another project. Does it mean a project that has qualified renewable energy cost can help other projects to be exempt? If so, do we need to identify which?
- We are concerned about the definition of "Director" in the definitions section of this bill. Currently, we have many county-financed structures (generally as a result of G.O. bonds) on parkland, and the DGS Director currently has no role in managing or benchmarking such structures. We recommend

clarifying language that the "Director" means the DGS Director OR the Director of the agency managing the affected property.

Please keep in mind the Parks infrastructure is quite complex, including many structures that do not fit the traditional definition of office building or warehouse structure. We also have hundreds of aged and often historic buildings, small service buildings, structures or buildings of varying sizes in remote or constrained locations, and a variety of other specialized facilities. Broad-based legislation that could include all of these could ultimately impact us significantly in the benchmarking process. We request clarification regarding the total impact some portions of this legislation may have on such facilities.

Suggested amendments are attached for your consideration.

Overall, we are encouraged by Councilmember Berliner's goals to advance sustainability in buildings and operations. Such conservation is a core mission of the Department of Parks and a mission we have already committed to achieve.

Thank you for the opportunity to comment.

Sincerely,

Mary R. Bradford
Director
Department of Parks-Montgomery County
The Maryland-National Capital Park and Planning Commission

Attachments: Practice 6-40
Legislative matrix analysis

County Council Bills on Sustainability and Energy Conservation

PROPOSED AMENDMENTS

Bill 2-14 Environmental Sustainability – Buildings - Benchmarking

18A-38 Definitions

Line 21 : ...Covered building does not include **buildings that are to be demolished within 4 years** or any building with more than 10% occupancy which is used for...

Bill 8-14 Buildings – County Buildings – Clean Energy Renewable Technology

8-54. Definitions

To modify line 22:

Director means the Director of the Department or the Director's designee**; or the Director of the agency managing the affected property**.

8-55 Clean energy renewable technology required

To add:

(d) All historic buildings and any other buildings that are smaller than 100,000 square feet are exempt from this requirement.

PRACTICE

No. 6-40

Approved by The Commission

Initially issued: 11/1/76
Last amended: 11/19/2012
Last reviewed: 11/19/2012

M-NCPPC Sustainability Standards

AUTHORITY

This Administrative Practice was initially approved by the Executive Committee at its meeting on October 4, 1976, and last amended by the Commission on November 19, 2012.

Patricia Barney

Patricia Barney, Executive Director

RESCISSION

The Practice, as amended on November 19, 2012, updates and replaces all other internal sustainability procedures.

PURPOSE AND BACKGROUND

This Practice (originally titled Commission Resource Conservation Program) was initially established to communicate agency-wide policy on the conservation of utilities sources, such as electricity, natural gas, fuel oil, and motor fuel. The Practice was revised on November 19, 2012 to update and replace initial measures through a broader understanding of sustainability standards, which benefit the environment, our workplace, and the communities we serve.

The Practice, as originally approved, has been revised as follows:

- May 1, 1979 and January 9, 1980: Incorporated updated responsibilities due to agency restructuring.
- November 19, 2012: Policy amended to:
  - Reflect more modern concepts in the area of sustainability, including:
    - Green building management strategies which meet nationally accepted sustainability certifications for energy conservation and use of renewable resources;
    - Procurement of goods and services aimed at high efficiency products and other sustainable practices;
    - Implementation of green development strategies in community planning, landscape design and other site planning;
    - Elements aimed to foster ongoing awareness among our employees and patrons on sustainability objectives and programs; and
    - Updated County and State sustainability mandates.

REFERENCES

Federal/State/Local Standards:

- Maryland Stormwater Management Act of 2007 and accompanying Environmental Site Design Standards
- Maryland Code, State Finance and Procurement, § 5-312, High Performance Building Act

- Prince George's County Executive Order 22-2007, Goes Green Program
- Prince George's County Energy Policy
- Montgomery County Bill 32-07, Environmental Sustainability Climate Protection Plan
- Montgomery County Code Section 18A, Energy Policy—Regulations
- Montgomery County Resolution 16-757, County Energy Policy (with reference to Interagency Committee on Energy and Utilities Management)
- Leadership in Energy and Environmental Design Certification Standards as issued by the United States Green Building Council
- Standards and Guidelines for Sustainable Sites (United States Sustainable Sites Initiative)
- Maryland Sustainable Communities Act of 2010

M-NCPPC Policies:

- Administrative Practice 4-10, Purchasing Policy
- Administrative Practice 2-18, Work-Life Program and related Administrative Procedures including:
    - 95-02, Compressed Scheduling
    - 95-04, Telework
    - 03-02, Alternative Commuting Resources

APPLICATION

This Practice applies agency-wide.

DEFINITIONS

Chlorine-free Processing: Paper is whitened without the use of chlorine in the process (PCF), eliminating production of chlorinated toxic chemicals and dioxins in processing wastes.

Energy Star: The Department of Energy rating for appliances and building products that minimize the use of energy.

Environmental Site Design (ESD): Using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources.

Forest Stewardship Council (FSC) Certification: A third-party guarantee that wood products, including paper, are harvested from a certified sustainably managed forest.

Green Practice: The wise use of resources, conservation, and innovative environment-friendly designs that create or enhance sustainability.

Greenhouse Gas (GHG): A gas that increases the atmospheric reflection of infrared heat emissions from Earth's surface, measured in carbon dioxide equivalent.

Leadership in Energy and Environmental Design (LEED): A building certification system designed by the U.S. Green Building Council (USGBC) that promotes design and construction strategies aimed at improving environment and resource stewardship. The tiered standards, which use Certified, Silver, Gold, and Platinum, vary by project type and are made available at USGBC.org.

Net Metering: Net metering is a policy that allows a solar-system owner to receive credit on his/her electricity bill for surplus solar electricity sent back to the utility.

Post-Consumer Recycled Content: Contains material that was consumed in a final product and then recycled.

Renewable Energy Certificate: Also known as "Green Tags" and "Green Certificates" is a tradable, non-tangible energy commodity that represents proof that one megawatt-hour of electricity was generated from an eligible renewable energy resource. Renewable Energy Certificates provide organizations a convenient way to purchase renewable energy, offset carbon emissions, and encourage clean energy development.

Smart Growth: Urban planning that supports efficient and sustainable land development and utilizes redevelopment that optimizes prior infrastructure investments. Smart growth incorporates strategies such as mixed-use urban centers that support and enhance public transit; promote walking and bicycling, provide for a range of housing and retail options, and consume less land that can be preserved for open spaces and natural systems.

Sustainable Sites Initiative (SITES): A rating system, similar to LEED developed by the American Society of Landscape Architects, that establishes voluntary national guidelines and performance benchmarks for sustainable land design, construction and maintenance practices.

Sustainability: Creates and maintains the conditions under which humans and nature can exist in productive harmony, and preserves resources so that they are not depleted or permanently damaged.

POLICY

The M-NCPPC is committed to stewardship of the environment, our community, and the workplace through the implementation of sustainable practices that preserve natural and economic resources, reduce waste and consumption, reduce the carbon footprint, promote green practices in our facilities and programs, and support the wellness of our employees and community.

Sustainability efforts shall increase the value or longevity of services while reducing reliance on resources and the negative effect on health or the environment.

The goal of this agency is to lead and implement meaningful sustainability initiatives. The sustainability goals outlined in this Practice are to be carried out as an agency, wherever feasible, and implemented within each department. The feasibility analysis of initiatives should consider the following:

- The prudent use of public dollars;
- The availability of green materials/services;
- The ability to maintain or improve existing service levels and safety; and
- The ability to safeguard the integrity of facilities/structures, including concerns for historic preservation.

These goals are intended to serve as benchmarks that may be further enhanced on a departmental, programmatic, or facility basis. It is recognized that certifications/standards identified in this Practice may evolve over time. The agency shall be guided by the certification/standard requirements that are in place at the time an initiative is being designed.

To implement this policy, each Department shall generate a Sustainability Plan that explains how goals identified in this Practice are being implemented for its respective facilities, operations or services. These Plans shall be presented to the Executive Committee by September 2013 and updated at least every two years.

The agency's sustainability efforts under this Practice also will be supported through a Sustainability Committee comprised of representatives from each department. The Committee shall: ensure coordinated efforts for agency-wide initiatives wherever practical; share ideas and expertise for the implementation on sustainability goals on a departmental level; prepare a Sustainability Report to the Commission that describes initiatives implemented throughout the agency, and recommend new or revised goals to ensure that the M-NCPPC stays at the forefront of sustainability practices.

Specific requirements for development of Sustainability Plans and reporting results to the Executive Committee and Commission are outlined in the Section titled Responsibilities. The following goals and objectives are designed to guide implementation of this Sustainability policy.

I. **Utility/Energy Conservation:** Conserve natural and fiscal resources by eliminating waste, improving efficiency, reducing the consumption of energy, and increasing the use of renewable sources of energy. Whenever feasible, new appliances and building materials shall meet Energy Star or equivalent rating for high efficiency and energy conservation. This should be in addition to also considering other environmental attributes such as recyclability and applicable federal/state safety and building code requirements.

A. Utility Measurement and Monitoring

1. Department sustainability coordinators shall collect utility use information to develop/enhance utility management standards and track the cost of each facility's utility consumption over time.

2. Utility consumption trends shall be made available to facility managers and Department Directors to evaluate and refine utility and cost saving practices.
3. Managers who operate buildings or spaces leased by the M-NCPPC should work with the facility owners to include utility metering or reporting for the leased space(s).

B. Conservation of Electricity and Natural Gas

1. In addition to established internal maintenance programs, departments should pursue grants for energy efficiency studies, upgrades, and retrofits for planned and existing facilities.
2. All M-NCPPC facility managers should seek to meet Leadership in Energy and Environmental Design (LEED) Volume Program for Operations and Maintenance, or LEED for Existing Buildings: Operations and Maintenance criteria, for at least a Silver or equivalent rating standards for operations and maintenance. These standards are issued by the U.S. Green Building Council which can be accessed through its website (www.usgbc.org).
3. Where practical, indoor and outdoor lighting fixtures shall be programmable or linked to occupancy or motion sensor(s).
4. Light emitting diodes (LEDs), daylight fixtures, or other efficient low-energy lighting solutions should be used in place of incandescent, halogen, or fluorescent lights, where practical.
5. By 2020, the agency through coordination with the Department of Finance, will strive to meet a target whereby 40% of its electricity is produced or supported through renewable energy sources. These sources may include, but are not limited to, the purchase of Renewable Energy Certificates, onsite generation of energy from renewable sources (such as wind, solar, geothermal, water, etc.), and/or the acquisition of renewable energy from utility companies. This target may be adjusted by the Executive Committee with input from the Secretary-Treasurer based on fluctuating costs and availability of renewable energy sources.
6. Renewable sources (such as solar, wind and geothermal) should be considered for new and replacement systems where life cycle cost savings are justified in addition to aggregate net metering or power purchase agreements, among other financing or contract mechanisms, to further reduce the Commission's carbon footprint with its energy use, save costs, and further promote clean power alternatives wherever practicable.

C. Conservation of Water

1. Install and properly maintain automatic faucets, where practical.
2. Whenever feasible, utilize low flow toilets and other innovations to reduce water demands.

3. Investigate and where feasible, install an efficient infrastructure for use of rainwater or grey water at M-NCPPC facilities, including water amenities and landscape watering.
4. Upon learning of any abnormal water usage pattern, facility managers shall investigate, locate, and immediately repair any leaks and inefficiencies.
5. Strive to plant native trees and shrubs in landscaping.
6. Strive to reduce lawn areas to minimize the need for irrigation and plant areas with appropriate drought tolerant native species.

D. Management of Heating, Ventilation, and Air Conditioning (HVAC) Systems

Whenever feasible:

1. Insulate exposed piping and ventilation ducts in accordance with at least LEED Silver or equivalent standard.
2. Integrate installation of high efficiency HVAC equipment in new construction or in replacement plans for existing equipment, such as Energy Star or equivalent.
3. Use programmable thermostats to minimize HVAC use when buildings are not in use.
4. In the planning of new buildings or major renovations to existing buildings, review insulation specifications to meet LEED Silver or equivalent standards.

E. Fleet Management and Use of Alternative Commuting Resources

1. Employees utilizing M-NCPPC vehicles are encouraged to carpool with other employees to conserve fuel, minimize operating costs, and reduce environmental impacts related to pollution and congestion.
2. Fleet managers shall assist Departments in assessing the functional use/need of vehicles based on assigned work program needs, and recommend vehicle purchases to most effectively meet these needs to include factors such as fuel/energy efficiency, safety, and effective operation. All new vehicle purchases shall consider the most energy efficient options suitable to meet the indicated use for the vehicle.
3. Vehicle assignments shall ensure the most efficient use of the agency's fleet.
4. To maintain highest operating efficiency, fleet managers should ensure that all vehicles receive periodic maintenance consistent with manufacturer specifications.
5. Reduce impact of employee travel to and from M-NCPPC facilities by implementing the following strategies:
   a) Implement feasible options and/or incentives to encourage staff's use of public transportation, regional commuting resources (e.g., ride share and car pools), and internal programs such as departmental pool vehicles and vanpools.

b) Establish and encourage carpooling by M-NCPPC employees, allocating reserved spaces for carpoolers.
c) Encourage the use of alternate work arrangements such as Telework and Compressed Workweeks to reduce, among other things, environmental impact and costs/needs associated with workspace operations.
d) Capitalize on meeting and conferencing technology by using more phone and video conference calls (including webinars for training), even locally, to cut back on use of vehicles and travel times.

II. **Sustainable Acquisition and Use of Agency Supplies:** Develop procurement specifications that encourage the use of goods and services which support the agency's commitment to sustainability in areas including, but not limited to, resources conservation, protection of the environment, and workplace health and safety.

A. Office Supplies and Furniture

1. Actively reuse office supplies whenever possible, maintaining a returned inventory of supplies for reuse.
2. Durable office equipment, including furniture, should be considered for reuse or repurpose by other M-NCPPC facilities/operations before it is recycled/surplused/or disposed.
3. All disposal or external surplus/recycling of M-NCPPC property shall be coordinated with the Department of Finance, Purchasing Office, to ensure-adherence to legal dispossession of assets, with a preference placed on repurposing outside M-NCPPC for the benefit of the community.
4. Where feasible, identify and use environmentally friendly cleaning supplies/other products and services that are effective, enhance worker safety and health, and meet or exceed federal/state safety requirements.

B. Printing and Copying

1. Utilize two-sided printing whenever one-sided printing is not necessary.
2. Limit use of color copying/printing to reduce costs and resources.
3. Unless specific job demands or technical specifications of a printer require otherwise, purchase and use 100% post-consumer recycled paper, preferably with chlorine-free processing.
4. Purchase of papers containing less than 100% post-consumer content should be limited to those that are Forest Stewardship Council (FSC) Certified.
5. Incorporate other practical measures to reduce print material such as e-signatures, document imaging, and other paperless means of doing business.

C. Procurement

1. Procurement policies shall incorporate sustainable purchasing guidelines to secure economies of scale and promote sustainable product and service offerings by vendors. (See, for example, the Environmental Protection Agency's list of greener products that promote resource conservation, efficiency, safer

alternatives, and, recycled content and recyclability, among other factors, in addition to other, similar sources. See also Section I.B., Conservation of Electricity and Natural Gas.)

2. Purchases should be combined whenever reasonable to reduce deliveries to minimum essential requirements, to save costs and energy where possible.
3. In cooperation with the Chief Information Officer, departments should create and sustain an efficient information technology (IT) infrastructure that supports operational needs while increasing paperless options for reviewing and storing information, and using environmentally preferable and energy efficient equipment including computers, printers, copiers, document imaging systems, servers, etc.).

III. **Recycling and Solid Waste Management:** Implement projects and programs to recycle, reuse, and reduce solid wastes used by M-NCPPC employees and patrons to meet or exceed the regulatory mandates established by government regulations. Recycling and disposal of materials shall comply with relevant federal/State safety regulations.

A. Implement recycling and reuse programs to achieve an overall rate of 90% of recyclable materials mandated by state or local law (including mixed paper, commingled materials, yard trim materials, Christmas trees, and scrap metal).

B. Implement recycling and reuse programs to include other material to include but not be limited to oils, batteries, asphalt, tires, furniture, computers, electronics, construction debris, etc.

C. Implement programs to recycle and reuse plant, tree, and related vegetation materials to include composting within the natural resources of the agency.

D. Develop community-based information programs to encourage, demonstrate, and educate patrons on best practices to recycle, reuse, and reduce solid waste at M-NCPPC facilities/programs.

IV. **Sustainable Infrastructure and Natural Areas:** The M-NCPPC will utilize the national and State standards for green practices in the design of facilities and in the management of natural resources. Natural areas will be managed to maintain healthy ecosystems and maximize biodiversity.

A. Sustainable Building - Whenever feasible:

1. All new construction of M-NCPPC buildings shall be at least Leadership in Energy and Environmental Design (LEED) Silver eligible or equivalent standard.
2. Major renovation of M-NCPPC buildings shall meet at least LEED Silver eligibility or equivalent standard.
3. Capital improvement plans shall include implementation of LEED or equivalent standards in construction and renovation.

4. When planning new office sites, consideration should be given to locations that offer access to public transportation resources such as metro rail, trains, buses, and carpools.

B. Sustainable Site Work - Where appropriate:

1. Capital improvement plans shall include implementation of the Sustainable Sites Initiative (SITES) or equivalent standards (such as LEED) in construction and renovation.
2. Plant native trees and shrubs around agency-owned buildings to provide wind and summer sun shelter.
3. Utilize appropriate site layout, landscaping, and material choice to reduce heat island effect and summer cooling costs.
4. Use best practices including, but not limited to, current environmental site design standards to avoid, trap, and control erosion or surface runoff of detergents, fertilizers, pesticides, and soil into storm drains and surface waters.

C. Natural Resources Management:

1. Develop and implement a Natural Resources Management Plan for all parklands acquired for conservation purposes by 2012. This Plan provides general guidance to park management staff for the management of natural areas in parks.
2. Maintain, and expand as appropriate, the existing program for the inventory, assessment, and control of non-native and invasive (NNI) plants.
3. Maintain, and expand as appropriate, the existing program for the control of nuisance wildlife (e.g. White-tailed deer, Canada geese, etc.)
4. Utilize integrated pest management practices, where effective.
5. Maintain, and expand, as required by State regulations, the storm sewer system, and the monitoring of water bodies and restoration of watersheds within the park system.

D. Community Planning and Development:

Where possible and practical, Community Planning and Development shall:

1. Plan and locate new development according to Smart Growth principles and in conjunction with Maryland Sustainability initiatives.
2. Locate recreation facilities to afford access via public transit and trails networks.
3. Co-locate community recreation centers and major recreation facilities with other public facilities.

V. Health & and Wellness: Promote safety, health, and wellness through our workplace, programs, and services.

A. Support healthy communities by integrating sustainability concepts and green practices with relevant program offerings, to further enhance patron and employee well-being.

B. Raise awareness of workplace health, safety, and wellness issues through comprehensive training and education programs targeting illness and injury prevention.

C. Mitigate workplace hazards through timely identification, investigation, and remedial action. Whenever reasonable, complete collaborative reviews of accidents and design new programs to encourage greater understanding of risks and actions to implementation.

VI. Employee Education & Training on Sustainability Goals

A. Sustainability efforts will be fostered through agency-wide promotion and education of environmental awareness and conservation.

B. Employees should be encouraged to seek sustainability credentials appropriate to their work program.

C. Supervisors are responsible for reviewing work program requirements as they pertain to implementation of sustainability efforts. Applicable sustainability goals are to be incorporated into employee performance expectations.

RESPONSIBILITIES

The following responsibilities are assigned for the overall administration of the agency's sustainability policy. Responsibilities may be delegated as appropriate.

Department Directors shall:

- Ensure compliance with this policy.
- Develop a departmental bi-annual Sustainability Plan that shall be presented to the Executive Committee by September 2013 to outline initiatives for the upcoming two-year period. The Sustainability Plan shall be reviewed and presented every two years.
- Following the first year of implementation of the Plan, Department Directors shall report of the status of achieving sustainability goals and objectives outlined in this Practice and in the departmental Sustainability Plan.
- Designate one or more employees to act as the departmental Sustainability Coordinator(s) and serve as the representative(s) to the agency-wide Sustainability Committee.

Departmental Sustainability Coordinators shall:

- Serve as the departmental liaison to the Sustainability Committee and as the point of contact and clearinghouse for all sustainability-related issues for the M-NCPPC.
- Assist the Department Director in preparing the departmental Sustainability Plan that meets, at a minimum, the sustainability goals and objectives set forth in this Practice.
- Communicate goals outlined in the departmental Sustainability Plan to all operations/facilities and provide support for implementation of the Plan.

- Collect data and perform analyses to monitor and assess ongoing progress on meeting standards and complying with guidelines.

Sustainability Committee shall:

- Share ideas for implementation of sustainability goals throughout the agency and on a departmental level.
- Promote sustainability awareness within M-NCPPC and the region.
- Recommend to Department Directors, and develop/implement approved communication tools to educate the workforce and the community on sustainability goals, initiatives, and progress.
- Recommend to Department Directors, new or amended initiatives to comply with the goals outlined in this Practice.
- Prepare a Sustainability Report to the Commission that describes the initiatives that have been implemented throughout the agency.
- Strengthen information exchange with intergovernmental relationships in the area of sustainability (e.g., Council of Governments, County/State agencies, local municipalities) and, where relevant, explore opportunities to promote cooperative partnerships and complementary cost-savings with potential implementation of various measures with or across organizational boundaries.

Mihill, Amanda

From: Kirkland, Bonnie
Sent: Thursday, March 13, 2014 3:53 PM
To: Berliner, Roger
Cc: Gibson, Cindy; Faust, Josh; Mihill, Amanda; Faden, Michael; Dise, David E.; Ossont, Greg; Coffman, Eric
Subject: Legislative Language - Alternative to 8-14
Attachments: Bill 8-14 Clean Energy renewables on govt bldgDGS Recommendation.doc

Follow Up Flag: Follow up
Flag Status: Flagged

Councilmember Berliner:

Attached please find amendments DGS will propose to you and T&E on Monday.

These amendments will allow DGS to choose the most appropriate locations and would allow DGS to maximize overall benefits including:

1. Selecting locations where solar is most efficient (e.g., avoiding shading from neighboring buildings) and cost effective.

2. Avoiding conflicts between solar photovoltaic and other desirable green design features in new facilities. For example, solar and vegetative roofs may compete under the original proposal.

3. Providing Solar as a portfolio goal allows us to look at both new and existing facilities. A key issue Prince George's County Council faced in their deliberations was interest from communities with older facilities to also have solar on facilities in their areas. The bill still passed as a new construction bill. A portfolio approach proactively addresses this as we would be installing solar in a mix of new and existing facilities.

And, yes, the flexibility under the proposed amendments would help limit the costs of the original proposal. Note: the fiscal impacts still need to be assessed.

DGS and I would be happy to discuss this with you further, if you wish. Otherwise, we'll see you Monday morning.

Bonnie

(34)

Bill No. 8-14
Concerning: Buildings – County Buildings – Clean Energy Renewable Technology
Revised: 12/12/2013 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, Riemer, Elrich, Andrews, and Navarro

AN ACT to:

~~(1) [require use of certain clean energy renewable technology in the construction or extensive modification of certain County buildings;~~
~~(2) require the Director of the Department of General Services to conduct a clean renewable energy technology project feasibility assessment on certain County buildings; and]~~
(3) to establish a County clean energy plan and portfolio clean energy target,
(4) require the County Executive to establish regulations defining the plan and target,
(5) require the Director of the Department of General Services to report on the progress of the clean energy plan
(2) generally amend County law regarding building, energy, and environmental policy.

By adding
Montgomery County Code
Chapter 8, Buildings
Article VIII, Clean Renewable Energy Technology
Sections 8-54, 8-55, 8-56, 8-57, 8-58

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

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

Sec. 1. Article VIII (Sections 8-54, 8-55, 8-56, 8-57, 8-58) is added to Chapter 8 as follows:

Article VIII. Clean Renewable Energy Technology.

8-54. Definitions.

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

Clean renewable energy technology means a technology or system that uses geothermal heating and cooling, solar hot water heating, wind power, solar electricity generation, or solar thermal generation. *Clean renewable energy technology* includes passive solar energy generation that reduces energy use from other sources by at least 20%.

Clean Energy Portfolio Target: A target, expressed in megawatt hour equivalents, establishing an amount of clean energy to be installed on the County's portfolio of facilities. This includes any building, facility, or property the County has a financial interest in. Financial interests can include ownership, leases and public private partnerships. Also includes facilities where the County provides 30% of total funding.

~~[*Cost effective* means where the cost of installing clean renewable energy technology on a covered County building is not projected to exceed the projected cost savings of the installation within the first 15 years after the installation of the technology begins.~~

~~*County building* means any building for which the County government finances at least 30% of the cost of:~~

~~(1) construction, for a newly constructed building; or~~

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

~~*Covered County building* means a newly constructed or extensively modified County building.]~~

Department means the Department of General Services.

Director means the Director of the Department or the Director's designee.

~~[*Extensively modify or modified* refers to any structural modification which alters more than 50% of a building's gross floor area, as shown on an application for a building permit.~~

~~*Projected total cost* means the estimated cost required to construct or renovate a building, including any building system, interior finish, site infrastructure, connection to any existing utility, landscaping, and sidewalk and parking lot built for the immediate use of occupants of the building.]~~

Megawatt Hour Equivalent: Energy supply equivalent to 3,412,000 BTUs

8-55. Clean energy renewable technology required. ~~[~~

~~(a) Any contract to build or extensively modify a County building must require the use of clean renewable energy technology. Except as provided in subsection (b), a covered County building must have installed at least 1 kilowatt of clean renewable energy technology for every 1,000 square feet of gross floor area. This requirement may be met by using ground mounted clean renewable energy technology on or directly adjacent to the building lot.~~

~~(b) Each appropriation to build or extensively modify a County building must include an additional amount of 2% to the projected total cost funded by the County, as shown in the project description form, subject to subsection (c).~~

~~(c) The Director must limit the size of the clean renewable energy technology installation if the initial cost of the installation is projected to exceed 2% of the projected total cost of the new building or renovation. However, if the Director transfers expenditures to the project under subsection (a), the initial cost of the installation must not exceed 4% of the projected total cost.]~~

(a) The County Executive must establish a Clean Energy Plan, via Method 1 regulation, that includes a specific amount of on-site Clean Energy installed on new or existing County facilities. This plan at a minimum must include:

1. Target for total clean energy installed on County facilities, in megawatt-hour equivalents. The target must exceed 1 kW per 1,000 square feet of facilities anticipated to be added to the County's portfolio as documented in the Capital Improvement Program.
2. Process for vetting new facilities for renewable energy installations during the design phase, including key criteria for evaluating opportunities for solar.
3. To the extent possible, ensure that appropriate facilities are solar ready,
4. Criteria for responsible site selection to balance the County's renewable energy goals with other environmental objectives.
5. Coordination with County Agencies on new facilities using at least 30% county funds,
6. Funding and staffing needed to achieve the goal.

(b) The County may place clean energy systems in alternate locations throughout the County to meet this requirement. Including:

7. Vacant properties,
8. Land swap and lease agreements,
9. Other properties or facilities where the County has a contractual, budgetary or other interest.

(b) The County Executive shall recommend to Council whether funds to support solar should be incorporated in a energy specific capital improvement budget, utility Non Departmental Account or other mechanisms necessary to overcome funding gaps to meet the renewable energy target.

~~[8-56. Project feasibility assessment.~~

~~(a) The Director must perform a feasibility assessment to find whether a covered County building can be retrofitted cost effectively to include clean renewable energy technology. The Director may consider other factors, including:~~

~~(1) the cost to the County;~~

~~(2) any safety or security issue;~~

~~(3) any cost savings from the installation;~~

~~(4) any clean energy job creation;~~

~~(5) the clean renewable energy technology capacity of the building;~~

~~(6) environmental benefits;~~

~~(7) the technological feasibility of a retrofit; and~~

~~(8) applicable zoning requirements.~~

~~(b) If the Director finds that installing clean renewable energy technology on a covered County building would not be cost effective, the Director must transfer expenditures from the covered County building project equivalent to 2% of the projected total cost for use in another applicable project, unless no applicable project is approved in the Capital Improvement Program. The County Council must approve any fund transfer between projects under this Section by resolution.]~~

8-57[6]. Alternative financing.

(a) An alternative financing arrangement which allows leveraging of federal, state, utility, and other incentives, including any grant, lease-purchase agreement, power purchase agreement, or energy savings performance contract, may meet the clean renewable energy technology requirement under this Article.

(b) The purchase of Renewable Energy Credits does not meet the clean renewable energy technology requirement under this Article.

8-58[7]. Administration; reporting.

(a) The Department must administer this Article using accepted principles of sound accounting and fiscal management.

(a) The Department must submit an annual report to the County Council and County Executive by April 1 each year describing:

(1) the added clean renewable energy technology generation by each project;

(2) the revenues and expenditures of each project;

~~(3)~~ each project supported by the Program; and ~~[~~

~~(4) the annual savings to the County's utility costs from each supported project.]~~

(5) financial analysis indicating the cost/savings resulting from the program.

Sec. 2. Effective date. Article VIII, inserted by Section 1 of this Act, applies to each new or major renovation public building project for which an application for a building permit is filed on or after January 1, 2014.

Approved: