

**FAIRFAX COUNTY PLANNING COMMISSION
ENVIRONMENT COMMITTEE
WEDNESDAY, OCTOBER 19, 2016**

PRESENT: James R. Hart, Commissioner At-Large
Ellen J. Hurley, Braddock District
John Ulfelder, Dranesville District
Frank A. de la Fe, Hunter Mill District

ABSENT: Janyce N. Hedetniemi, Commissioner At-Large
Timothy J. Sargeant, Commissioner At-Large
Julie M. Strandlie, Mason District
Kenneth A. Lawrence, Providence District

OTHERS: Maya Dhavale, Planning Division (PD), Department of Planning and
Zoning (DPZ)
Noel Kaplan, PD, DPZ
Kambiz Agazi, County Executive Office
Kimberly Bassarab, Assistant Director, Planning Commission
Inna Kangarloo, Senior Deputy Clerk, Planning Commission

ATTACHMENT:

- A. MITRE Corporation Building Energy Technology Recommendations to Fairfax County Table, September 29, 2016
- B. Articulation of the Planning Commission Environment Committee's position on the issue of third party certifications and performance guidelines, based on the discussion at the September 29, 2016 Committee meeting

//

Chairman James Hart called the meeting to order at 7:07 p.m., in the Board Conference Room, 12000 Government Center Parkway, Fairfax, Virginia, 22035.

//

Noel Kaplan, Planning Division (PD), Department of Planning and Zoning (DPZ), provided a written summary of the Planning Commission's position on the issue of the third party certifications and performance guidelines, as indicated in Attachment B.

//

Mr. Kaplan, PD, DPZ; Kambiz Agazi, County Executive Office; and Maya Dhavale, PD, DPZ, continued the discussion from September 29, 2016 meeting on the Committee's review of the MITRE report "Building Energy Technology Recommendations to Fairfax County."

//

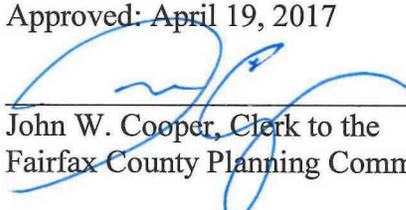
The meeting was adjourned at 7:46 p.m.

James R. Hart, Chairman

An audio recording of this meeting is available in the Planning Commission Office, 12000 Government Center Parkway, Suite 330, Fairfax, Virginia 22035.

Minutes by: Inna Kangarloo

Approved: April 19, 2017



John W. Cooper, Clerk to the
Fairfax County Planning Commission

MITRE Corporation Building Energy Technology Recommendations to Fairfax County (As of September 29, 2016)

Overarching Recommendation

1	<p>“We strongly recommend the FCG continue its practice of not employing a prescriptive approach to building technologies or components.” (Sec. 6.1)</p> <ul style="list-style-type: none"> • “We . . . recommend that FCG take no action directly on building form, integration, construction, or operations.” (Sec. 3.3.1.2) • “We strongly recommend that FCG continue its practice of not prescribing technologies or designs to developers. . . . This is because a building is a system.” (Sec. 3.3.3.2) 		
<p>Staff: Concurs. Staff views the recommendation as being consistent with the current green building policy. Staff continues to support engagement with applicants to explore potential proffers.</p>	<p>Stakeholders: Interest expressed in augmenting LEED with energy-specific performance.</p>	<p>Further discussion needed? If so, on what issue(s)? If the committee disagrees with the recommendation, is there a specific building technology of interest?</p>	<p>EC Position: General support for the staff perspective, but there is a need to circle back to this item upon completion of reviews of the other recommendations</p>

Recommendations regarding Individual Technologies/Data Collection

2a	<p><i>Wind:</i> “We recommend that FCG not encourage installations unless a developer has himself proposed the project. If, however, FCG wishes to explore the option further it could use the proffer process to map the prevailing wind fields over Tysons Corner.” (Sec. 3.1.1.2)</p>		
<p>Staff: Concurs <u>with MITRE’s general recommendation. However, +</u> Bbecause the Virginia NREL map shows wind generation is impractical in Tysons (and most of Virginia generally), staff does not consider mapping to be a good use of resources.</p>	<p>Stakeholders: No specific comments.</p>	<p>Further discussion needed? If so, on one or both recommendations and on what issue(s)?</p>	<p>EC Position: Support for the staff perspective</p>

Areas with changes from the previous draft are noted with a



MITRE Corporation Building Energy Technology Recommendations to Fairfax County (As of September 29, 2016)

2b	<p><i>Geothermal:</i> “An engineering study is necessary to determine the general suitability of [ground source heat pumps (GSHPs)] in Tysons Corner. We are aware of no such general study, and so we recommend against FCG encouraging the installation of GSHPs if the developer does not support the idea. If FCG wishes to pursue this avenue for the future, however, a comprehensive engineering study of the issue may be of interest.” (Sec. 3.1.2.2)</p>			
	<p>Staff: Concurr. Staff recognizes geothermal as a proven technology but one that needs to be evaluated by a developer on a case-by-case basis.</p>	<p>Stakeholders: No specific comments.</p>	<p>Further discussion needed? If so, on what issue(s)?</p>	<p>EC Position: Support for the staff perspective</p>
2c	<p><i>Solar:</i> [Given that, in Tysons,] “urban density and vertical development will be the rule . . . we recommend that FCG encourage the adoption of solar systems only if the developer originally proposes and supports the installation. . . . Insolation is well-known and easily available from NREL; there is nothing to be gained from a proffer of data collection on this subject.” “Passive systems are generally functions of design, rather than technology implementations, so while insolation management will be a core concern for energy efficiency design, FCG will likely find it difficult, at best, to negotiate proffers on the subject.” (Sec. 3.1.3.2)</p>			
	<p>Staff: Concurr. Staff supports MITRE’s perspectives on solar generation but notes that it remains a relatively expensive way to generate electricity (or reduce greenhouse gas emissions) when compared to Virginia electric rates.</p>	<p>Stakeholders: No issues raised with MITRE’s recommendation; comments focused on the cost of solar systems and environmental and societal benefits of solar-generated electricity.</p>	<p>Further discussion needed? If so, on one or both recommendations and on what issue(s)? Is there a need to acknowledge that the review is extending countywide and that MITRE’s concern regarding limited roof surface area in Tysons may not apply elsewhere in the county?</p>	<p>EC Position: Support for MITRE’s recommendation on solar systems subject to continued monitoring and possible reconsideration in the future; support for passive solar design within broader contexts, and flexibility to support such design; support for consideration of innovative technologies and solar fields if/when proposed.</p>

MITRE Corporation Building Energy Technology Recommendations to Fairfax County (As of September 29, 2016)

2d	Storage for Load-Shifting: “We recommend that Fairfax remain neutral on the implementation of load-shifting in an individual building. . . . [and] we recommend that FCG only pursue energy storage systems only if they are originally proposed and supported by the developer.” (Sec. 3.2.3)
----	--

Staff: Concur.	Stakeholders: No specific comments.	Further discussion needed? If so, on what issue(s)?	EC Position: Support for the staff and MITRE perspectives
-----------------------	--	--	--

Recommendation regarding District Energy

3	“We . . . recommend that . . . unless an applicant is proactively pursuing a district energy approach (or similar effort), the county not seek proffers on the subject of district energy in favor of seeking proffers with more certain benefit. If FCG wishes to proceed towards district energy, we recommend that it first seek help from federal resources” (Sec. 3.4.2)
---	---

Staff: Concur.	Stakeholders: No specific comments.	Further discussion needed? If so, on what issue(s)?	EC Position: The committee supports the concept but does not recommend proactive pursuit at this time in light of impediments. There may be future application as this technology evolves.
-----------------------	--	--	---

Recommendations regarding 3rd Party Certifications and Performance Guidelines

4a	LEED: “FCG already pursues certification-based approach with its use of LEED. We recommend that it continue this course rather than looking for more direct influence over the technology particulars of a building. . . . We recommend continued use of LEED.” (Sec. 5.4)
----	--

Staff: Concur. Staff views the recently-revised green building policy as consistent with this recommendation.	Stakeholders: No specific comments.	Further discussion needed? If so, on what issue(s)?	EC Position: Support for the staff perspective
--	--	--	---

MITRE Corporation Building Energy Technology Recommendations to Fairfax County (As of September 29, 2016)

4b ¹	<p><i>Designed to Earn ENERGY STAR:</i> “To complement LEED, we recommend that the county encourage Designed to Earn the ENERGY STAR [DEES] certification We recommend DEES certification, rather than ENERGY STAR certification” (Sec. 5.4) “. . . because LEED only considers design, FCG should also encourage at least Design to Earn ENERGY STAR certification . . . (Sec. 6.4)</p>			
	<p>Staff: If is determined that the previous decision to not emphasize any particular green building aspects should be revised such that energy efficiency should be emphasized, staff concurs with the consideration of the use of DEES to the extent DEES is recognized as complementary, rather than as an alternative, to other green building commitments. Policy Plan guidance appears to support DEES aspirational efforts.</p>	<p>Stakeholders: Supportive. LEED requires only a minimal increase in energy efficiency; other options in addition to DEES may be available (e.g., ASHRAE guides; LEED energy optimization points).</p>	<p>Further discussion needed? If so, on what issue(s)? Does the committee wish to revisit its prior recommendation against emphasizing any particular aspect of green building design? If the committee wishes to recommend an emphasis on energy efficiency, what approach(es) should be considered and what additional discussions would be needed to aid the committee in developing a recommendation? <i>See staff’s decision flow chart.</i></p>	<p>EC Position: Provide a general emphasis on energy efforts within the green building policy but do not establish a preference for any particular approach or certification system relating to energy efficiency/conservation. Encourage such efforts but don’t establish any prescriptions or expectations on specific levels of energy performance.</p>

¹ Note: As of July 14, 2015, the county began enforcing a new provision in the 2012 Virginia Energy Conservation Code that requires commercial projects to incorporate one of three energy measures (HVAC efficiency, lighting efficiency, or on-site renewable energy). The committee may wish to consider this new requirement when discussing whether additional efforts to augment LEED, such as DEES, should be pursued.

MITRE Corporation Building Energy Technology Recommendations to Fairfax County (As of September 29, 2016)

4c	<p><i>Benchmarking with Portfolio Manager: “To complement LEED, we recommend that the county . . . encourage annual benchmarking with Portfolio Manager.” (Sec. 5.4)</i></p> <p><i>“ . . . because LEED only considers design, FCG should also encourage at least Design to Earn ENERGY STAR and then annual reporting in ENERGY STAR Portfolio Manager to ensure energy-efficiency in practice. FCG should also strongly encourage building owners to help improve LEED by using Portfolio Manager to report energy performance back to the U.S. Green Building Council.” (Sec. 6.4)</i></p>			
	<p>Staff: Supports tracking and evaluation of energy use in general but has concerns about seeking related proffer commitments. Supportive stakeholder comments caused staff to reconsider its concerns. There may be promise in pursuing commitments, and in particular the idea of gaining county government access to Portfolio Manager (or equivalent) data to support future evaluations if/when resources would be available. However, data consistency, enforcement and staff resource concerns remain. Reporting to USGBC is not an issue—LEED certification includes a reporting requirement.</p>	<p>Stakeholders: Comments express considerable support for energy benchmarking and the use of Portfolio Manager. Commenters describe access to energy use data as a consumer information need and not difficult to collect, state that required submissions will spur tracking by others and note that other localities impose benchmarking requirements.</p>	<p>Further discussion needed? If so, on what issue(s)? Should the county seek to collect building energy data through proffered commitments? If so, should the data collection mechanism be periodic reports or the provision of access to Portfolio Manager accounts for the building(s) in question? <i>See staff’s decision flow chart. In addition, the committee has received guidance on its questions regarding FOIA implications of data collection, and this could be considered within this discussion.</i></p>	<p>EC Position: <u>The committee began its discussion of this issue on September 29, 2016; additional committee discussion and possible development of position anticipated on October 19, 2016 (issue needs more discussion)</u></p>
4d	<p><i>Net Zero and Passive House: “We recommend that Fairfax closely monitor developments pertaining to net-zero . . .” (Sec. 5.4)</i></p> <p><i>“We also recommend that FCG pay close attention to the evolution of Passive House and net-zero methodologies, and as these practices mature, we recommend FCG use them to specify building performance targets.” (Sec. 6.4)</i></p>			
	<p>Staff: Concurs in the recommendation to closely monitor and has done so to date.</p>	<p>Stakeholders: No specific comments.</p>	<p>Further discussion needed? If so, on what issue(s)?</p>	<p>EC Position: Support for the staff and MITRE perspectives; revisit when the concept blossoms.</p>

MITRE Corporation Building Energy Technology Recommendations to Fairfax County (As of September 29, 2016)

4e	<p><i>Innovative Energy Proposals:</i> “. . . we recommend that FCG allow risk to trump certification. If a developer acting in good faith proposes a project with new, risky technologies that may offer a chance at breakthrough energy performance, and if that riskiness is enough to jeopardize FCG’s usual preferred form of certification, then we suggest that the county accept a commitment to proceed with the risky process in lieu of a commitment to the certification (though maintaining a reporting component to the commitment) and proceed with the risky project (Sec. 5.4)</p> <p>“. . . certification guidelines (though not Portfolio Manager reporting) should not be applied rigidly if a developer wishes to be a test case for unproven energy-efficiency techniques or technologies. . . . FCG should coordinate with DOE programs to recruit suitable experimentation developments, and it should apply flexibility to its guidelines so that policies meant to encourage a minimum level of environmental stewardship do not hamper attempts to exceed it.” (Sec. 6.4)</p>			
	<p>Staff: Concurs with the general approach outlined above. The Comprehensive Plan is a guide—it can therefore support the approach recommended by MITRE should such an opportunity arise. The county has a long history of implementing cutting-edge concepts and its innovative and successful efforts consistently attract national recognition.</p>	<p>Stakeholders: No specific comments.</p>	<p>Further discussion needed? If so, on what issue(s)?</p>	<p>EC Position: Support for the staff and MITRE perspectives, with clarification of the use of the term “risky” to reference unproven or emerging technologies.</p>

MITRE Corporation Building Energy Technology Recommendations to Fairfax County (As of September 29, 2016)

Recommendation regarding Public Reporting

5	<p>“[W]e . . . recommend that FCG encourage building owners to make public their energy consumption performance. From developers, FCG should negotiate access to the consumption data through Portfolio Manager, and the County should post the annual benchmarking results publicly online. . . . Additionally, each facility should have posted its ENERGY STAR scores from each benchmarking along with its LEED Certification.” (Sec. 5.4; see also Sec. 6.5)</p>			
	<p>Staff: Staff supports the tracking and evaluation of energy use but has concerns about public reporting of private building energy use. Concerns include uncertain legal authority to require public disclosure of private data, the extent to which applicants would be willing to commit to disclosure, uncertain means to enforce voluntary commitments, and lack of staff resources to maintain and publicize energy use data.</p>	<p>Stakeholders: Considerable support for energy benchmarking and tracking and the use of Portfolio Manager in particular.</p>	<p>Further discussion needed? If so, on what issue(s)? If the committee supports public disclosure, should the county pursue MITRE’s recommendation or another version of disclosure? If the latter, does the committee have a particular approach to disclosure that it would recommend?</p>	<p>EC Position: {Issue needs more discussion}</p>

DRAFT

Articulation of the Planning Commission Environment Committee's position on the issue of third party certifications and performance guidelines (i.e., MITRE's recommendation supporting augmentation of the Policy Plan's green building policy with Designed to Earn the ENERGY STAR), based on the discussion at the September 29, 2016 committee meeting

The Environment Committee spent a considerable amount of time discussing and debating this issue and identified two distinct questions that need to be answered:

1. Should the Comprehensive Plan's green building policy be revised such that it would establish a greater emphasis on energy efficiency over other green building design strategies?
2. If so, should the Designed to Earn the ENERGY STAR program be the preferred mechanism to implement this recommendation?

The committee notes that MITRE's recommendation is implicitly focused on the component of the county's green building policy that addresses nonresidential development and residential development proposals that would be eligible to attain the LEED-NC (New Construction) or LEED-CS (Core and Shell) Certification. The policy addressing other residential development proposals (e.g., single family and low-rise multifamily) already includes an energy emphasis, in that it supports certification under an established residential green building rating system that incorporates multiple green building concepts and that includes an ENERGY STAR Qualified Homes designation or comparable level of energy performance. This emphasis on energy efficiency was established within the original policy as adopted in 2007 because, at that time, comprehensive residential green building rating systems were not widely available while the ENERGY STAR Qualified Homes program was. In its development of recommendations leading to the 2014 revision of the green building policy, the committee recommended a broadening of the residential policy to recognize that such comprehensive residential green building rating systems were now available, but it did not wish to do this at the expense of the adopted emphasis on energy.

The component of the green building policy addressing projects eligible to attain the LEED-NC or LEED-CS Certification has not, to date, emphasized any one particular green building design strategy, although the committee notes that stormwater management guidance that has been adopted within Area Plans for a number of the county's growth centers does provide explicit support for the stormwater-related LEED credits (or equivalent). During the committee's recent deliberations on the revision of the green building policy, there was considerable discussion as to whether any particular green building strategies should be emphasized over others, and the committee ultimately recommended against establishing such emphases within the Policy Plan guidance. MITRE has effectively asked the county to revisit this approach.

In considering the questions above, the committee sees merit to a range of perspectives—it acknowledges that energy efficiency and conservation are increasingly critical needs in light of global climate issues and also notes that the public comments it received during its review were

supportive of a policy emphasis on energy. However, the committee also recognizes that all components of green building rating systems have merit and that, if an emphasis on energy were to be established, it would likely come at the expense of other meritorious green building strategies. The strong merits of differing perspectives caused the committee to have considerable difficulty in addressing these questions.

After considerable discussion and review, the committee has reached the following conclusions:

- **There would be merit in revising the green building policy in the Policy Plan volume in order to establish more explicit, but general, support/encouragement for energy efficiency and conservation efforts.**
- **Applicants and their development teams should be encouraged to emphasize energy efforts within their green building strategies. However, there should not be a prescription or expectation set for any additional specific levels of energy performance.**
- **While a general emphasis on energy efforts should be encouraged, the Policy Plan guidance should not establish a preference for any particular approach or certification system (e.g., Designed to Earn the ENERGY STAR) relating to energy efficiency/conservation. Rather, the Policy Plan should be amended to provide general encouragement for such efforts, applicants should be apprised of this preference, and applicants should then decide, if, how, and to what extent they should incorporate such an energy emphasis into their green building commitments. An applicant's energy and green building commitments could then be considered within the broader context of the application's proffer package.**