

<b>Summary of MITRE Corporation Building Energy Technology Recommendations, Staff Perspectives, Stakeholder Comments and Environment Committee Positions to Fairfax County</b>		
<b>Overarching Recommendation</b>		
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"> <li>• “We . . . recommend that FCG take no action directly on building form, integration, construction, or operations.” (Sec. 3.3.1.2)</li> <li>• “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)</li> </ul>	
	<p><b>Staff Perspective:</b> 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><b>Stakeholder Comments:</b> Interest expressed in augmenting LEED with energy-specific performance.</p>
		<p><b>Environment Committee Position:</b> Support for the staff perspective</p>
<b>Recommendations regarding Individual Technologies/Data Collection</b>		
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><b>Staff Perspective:</b> Staff concurs with MITRE’s general recommendation. However, because 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><b>Stakeholder Comments:</b> No specific comments.</p>
		<p><b>Environment Committee Position:</b> Support for the staff perspective.</p>

[Major changes from the October 19 summary table are highlighted in yellow. Also—the “further discussion needed” column has been removed.]

**Summary of MITRE Corporation Building Energy Technology Recommendations, Staff Perspectives,  
Stakeholder Comments and Environment Committee Positions to Fairfax County (continued)**

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><b>Staff Perspective:</b> Staff concurs. 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><b>Stakeholder Comments:</b> No specific comments.</p>	<p><b>Environment Committee Position:</b> 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><b>Staff Perspective:</b> Staff concurs. 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><b>Stakeholder Comments:</b> 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><b>Environment Committee Position:</b> Support for MITRE’s recommendation on solar systems subject to continued tracking 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>

**Summary of MITRE Corporation Building Energy Technology Recommendations, Staff Perspectives,  
Stakeholder Comments and Environment Committee Positions to Fairfax County (continued)**

2d	<i>Storage for Load-Shifting:</i> “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)		
	<b>Staff Perspective:</b> Staff concurs.	<b>Stakeholder Comments:</b> No specific comments.	<b>Environment Committee Position:</b> Support for the staff and MITRE perspectives
<b>Recommendation regarding District Energy</b>			
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)		
	<b>Staff Perspective:</b> Staff concurs.	<b>Stakeholder Comments:</b> No specific comments.	<b>Environment Committee Position:</b> 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.
<b>Recommendations regarding 3<sup>rd</sup> Party Certifications and Performance Guidelines</b>			
4a	<i>LEED:</i> “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)		
	<b>Staff Perspective:</b> Staff concurs. Staff views the recently-revised green building policy as consistent with this recommendation.	<b>Stakeholder Comments:</b> No specific comments.	<b>Environment Committee Position:</b> Support for the staff perspective

**Summary of MITRE Corporation Building Energy Technology Recommendations, Staff Perspectives,  
Stakeholder Comments and Environment Committee Positions to Fairfax County (continued)**

4b <sup>1</sup>	<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><b>Staff Perspective:</b>  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><b>Stakeholder Comments:</b>  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><b>Environment Committee Position:</b>  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>

<sup>1</sup> 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.

**Summary of MITRE Corporation Building Energy Technology Recommendations, Staff Perspectives,  
Stakeholder Comments and Environment Committee Positions to Fairfax County (continued)**

4c	<p><i>Benchmarking with Portfolio Manager:</i> “To complement LEED, we recommend that the county . . . encourage annual benchmarking with Portfolio Manager.” (Sec. 5.4)</p> <p>“ . . . 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)</p>		
	<p><b>Staff Perspective:</b></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><b>Stakeholder Comments:</b></p> <p>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><b>Environment Committee Position:</b></p> <p>The committee shares many of staff’s concerns—in particular, the committee is concerned with the lack of staff resources that would be needed to enforce commitments and proactively collect and evaluate energy tracking data. The committee does not support, at this time, the pursuit, either directly or through access to on-line data, of commitments from applicants to the provision of energy tracking information to the county. The committee wishes, though, to leave the door open to reconsideration of this idea in the future. The Committee supports broader education and outreach efforts to encourage all building owners and operators to track and benchmark their energy use.</p>

**Summary of MITRE Corporation Building Energy Technology Recommendations, Staff Perspectives,  
Stakeholder Comments and Environment Committee Positions to Fairfax County (continued)**

4d	<p><i>Net Zero and Passive House:</i> “We recommend that Fairfax closely monitor developments pertaining to net-zero . . .” (Sec. 5.4)          “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)</p>		
	<p><b>Staff Perspective:</b>          Staff concurs in the recommendation to keep aware of related developments; it has done so to date.</p>	<p><b>Stakeholder Comments:</b>          No specific comments.</p>	<p><b>Environment Committee Position:</b>          Support for the staff and MITRE perspectives; revisit when the concept blossoms.</p>
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)          “. . . 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><b>Staff Perspective:</b>          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><b>Stakeholder Comments:</b>          No specific comments.</p>	<p><b>Environment Committee Position:</b>          Support for the staff and MITRE perspectives, with clarification of the use of the term “risky” to reference unproven or emerging technologies.</p>

**Summary of MITRE Corporation Building Energy Technology Recommendations, Staff Perspectives,  
Stakeholder Comments and Environment Committee Positions to Fairfax County (continued)**

**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>
---	---

**Staff Perspective:**

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.

**Stakeholder Comments:**

Considerable support for energy benchmarking and tracking and the use of Portfolio Manager in particular.

**Environment Committee Position:**

Concurrence with the concerns identified by staff; committee does not support the publication of energy tracking data from privately-operated buildings through the zoning process.

DRAFT--January