

*ARLINGTON COUNTY  
COMMUNITY ENERGY PLAN  
SUMMARY OF PRELIMINARY RECOMMENDATIONS*

**ADDENDUM**

*October 13, 2010*



Prepared by CEP Technical Working Group  
for consideration by the  
Arlington County CES Task Force

**Addendum to “Community Energy Plan Summary of Preliminary Recommendations” - dated September 8<sup>th</sup>, 2010  
Task Force Comments submitted by October 1<sup>st</sup>, 2010  
Technical Working Group (TWG) Replies - dated October 13<sup>th</sup>, 2010**

*Notes:*

1. *The following comments were submitted by the Task Force Members (except where otherwise noted) at the request of the CEP Technical Working Group (TWG) as part of the review process for the CEP Preliminary Recommendations document presented as a precursor to the CEP Final Report.*
2. *The Preliminary Recommendations document was intended as a discussion document and was not structured as a formal report.*
3. *No changes will be made to the Preliminary Recommendations document based on the comments below; rather this document will stand as a milestone document in the CEP development process.*
4. *The comments and responses below will be attached to the Preliminary Recommendations document and made available for public record. All agreed points will be incorporated into the CEP Final Report as noted in the responses.*

#	Comment	TWG Response
SB1	Page 2, last paragraph of Section 2: It might be interesting to include the difference between the worldwide benchmark, and a US/domestic benchmark with regards to Arlington’s energy use. I presume that at some point along our path, we’ll reach #1 status in the US but will still be lagging behind the rest of the world, and that frame of reference might be worth knowing.	<ul style="list-style-type: none"> <li>• <i>Arlington is comparable with most of the USA (except California) in terms of the built environment. An indicative gap will be referred to in the CEP Final Report along with the rough timing at which the US gap would be closed.</i></li> <li>• <i>On transportation, Arlington may well be close to US best practice, with the possible exception of New York which benefits from its extensive legacy system.</i></li> </ul>
SB2	Page 2, last paragraph of Section 2: The last sentence suggests a \$400M savings (annually?) to the County (I assume this is an end result when the full plan is completed and that prorated savings are realized as we progress). Is that the County Government or all residents and businesses in the county? Somewhere it may be necessary to show interested parties how that savings might break down and who benefits if we are going to be balancing “what does it cost me vs. what I save” equation.	<ul style="list-style-type: none"> <li>• <i>\$400M is roughly based on the savings annually to all energy users when the CEP is fully implemented, assuming constant 2010 price. This is a somewhat unrealistic assumption as energy prices will inevitably fluctuate (likely rise) over the 40-year horizon of the CEP.</i></li> <li>• <i>This estimate does not include any peripheral economic benefits from the CEP and assumes no carbon penalties,</i></li> </ul>

		<p><i>both of which could help to offset higher energy pricing if managed properly.</i></p> <ul style="list-style-type: none"> <li><i>• The breakdown is being further validated as part of the next phase of the CEP development, and a refined estimate will be included in the CEP Final Report.</i></li> </ul>
SB3	<p>Page 3, Section 4, under County Administration: creation and adoption of Implementation Plan. This seems like the big ticket item. Can we begin to identify how this will happen, and who will be involved (i.e. will Peter’s team continue to consult? Will County staff take over? With contributions from business and citizens?)?</p>	<ul style="list-style-type: none"> <li><i>• The CEP will be a relatively detailed long-range plan clearly defining strategic goals and directions for each segment of energy use.</i></li> <li><i>• The CEP will be supported by a significant amount of benchmarking, references and background.</i></li> <li><i>• The Implementation Plan will require a more specifically detailed assessment covering the first years of actions and adjustments needed to translate the CEP goals into all the relevant areas of activity within the County.</i></li> <li><i>• It is expected that the Implementation Plan will be developed predominantly by County Staff, using the information and tools developed in the CEP process.</i></li> <li><i>• Outside consulting will be sourced as needed and is expected to be relatively small in scale.</i></li> </ul>
SB4	<p>Page 4, Section 5, “Renovation is Critical”: After 2016, efficiencies need to increase.....by what increments? Will this be done by code/legislative requirements, or by voluntary compliance with increasingly higher standards?</p>	<ul style="list-style-type: none"> <li><i>• From 2016, the target is for renovated homes and buildings to operate 30% more efficiently than today’s average. Homes would incrementally improve to 50% by 2050, and buildings to 70% by 2050.</i></li> <li><i>• Approximately half the improvements will come from improved construction practices and half from improved operations, including what is now known as conservation behavior.</i></li> <li><i>• The recommendation is that this will be done by adopting voluntary standards (i.e., raised expectations throughout</i></li> </ul>

		<p><i>the community), supported by the transparency of voluntary Energy Performance Labeling.</i></p> <ul style="list-style-type: none"> <li>• <i>A purely voluntary approach is recognized to be challenging and will require significant support from the community as a whole.</i></li> </ul>
SB5	<p>Page 4, Section 5 “Enhanced Community Awareness”: I think it would be important to start the performance labeling as voluntary (say for the first 10 years) but then to make it mandatory from 2025 on.</p>	<ul style="list-style-type: none"> <li>• <i>Agreed - The recommendation is for voluntary performance labeling, initially led by influential early adopters.</i></li> <li>• <i>The goal is to have it become so commonplace that it effectively becomes a community norm.</i></li> </ul>
SB6	<p>Page 5: the second paragraph references procurement policies for the County, and then the 4th paragraph talks generically about training building owners on O&amp;M best practices. Shouldn’t we be recommending mandatory “best management practices” for all County buildings as a way to be the example that local businesses and property owners can follow?</p>	<ul style="list-style-type: none"> <li>• <i>Agreed – this was the intent of the recommendations so this comment highlights a need for more clarity which will be covered in the CEP Final Report.</i></li> <li>• <i>The County buildings should be living examples of best practices in procurement, data transparency and excellence in operations. Staff already have a growing list of buildings where 30% (and larger) reductions have been achieved in building energy use through retrofits and operational improvements.</i></li> <li>• <i>That being said, the transfer and adoptions of best practices by the private sector should be proactive and start early in the process. Voluntary examples should be promoted and shared throughout the County.</i></li> </ul>
SB7	<p>Page 6, Section 8 “District Energy”: The paragraph starting “DE systems facilitate...” has a 2030 target of 146MW of CHP being distributed. I think it would be helpful to have that expressed as a % of our (current) total energy usage.</p>	<ul style="list-style-type: none"> <li>• <i>Agreed – phrased as “the total of the PV and the distributed CHP can cover approximately ___% of the total requirements of the County” – this will be further clarified in the CEP.</i></li> </ul>
SB8	<p>Page 7, second paragraph: This seems like another “big issue” that may deserve more attention. There are surely lots of legal issues associated with tangling with Wash Gas and DVP. They are “at the table”, but are they truly</p>	<ul style="list-style-type: none"> <li>• <i>There are multiple benefits for DVP from the reduction in summer peaks and the addition of renewable electricity. While total volume sales may be less, the quality of those</i></li> </ul>

	open to what our plan will do – reduce the County’s demand for power, thus reducing their revenue? (that may be a rhetorical question)	<p><i>sales will improve.</i></p> <ul style="list-style-type: none"> <li>• <i>For Washington Gas, the development of municipal district energy is likely to offer potential benefits and new business opportunities.</i></li> </ul>
SB9	Page 7, 2nd to last paragraph “Enhance Supply security”: I think it might be wise to rework the sentence “With the impending effects of climate change....” to keep the focus on “continued increased demand”. Peter emphasized early that this case can be made to stand up as a sound business/economic model on its own. It seems that climate change is still not mainstream accepted and may be a lightning rod for those who want to oppose this.	<ul style="list-style-type: none"> <li>• <i>Noted – though most of the debate over climate is less whether it is occurring and more whether humans are the cause.</i></li> <li>• <i>Irrespective of the cause, if the summers get hotter, the demand for air conditioning will increase.</i></li> <li>• <i>In any case, the demand growth in the DC area including Arlington County will stress this summer peak if mitigating actions are not taken.</i></li> </ul>
SB10	Page 10, Section 11: Could we consider including recommendation in the plan to address getting to higher levels of efficiency faster by having Arlington draft and adopt Supplemental building codes specific to energy efficiency by 2020?	<ul style="list-style-type: none"> <li>• <i>If there is willingness for the Community to accept, this would be a rational approach, and one the TWG would support.</i></li> <li>• <i>These higher standards are likely to become code anyway in the coming years, so getting ahead of the curve will be good marketing and also create competitive edges for Arlington’s construction and property developers.</i></li> </ul>
SB11	General questions: I asked this at the last meeting, but so it’s on record: How does the County envision the next big steps of developing the implementation plan and fighting for/through the details that will make this all real? I assume many of the board members will want to stay involved past this initial step (as I do). What roles will be available to contribute? Does the TWG continue on? With Peter’s team in a new capacity? What will the balance be between County-driven and Business/Owner-driven that will keep the momentum going once the “heavy lifting” begins?	<ul style="list-style-type: none"> <li>• <i>The TWG anticipates the Implementation Plan will be prepared by County staff, who will call upon external consultants as needed.</i></li> <li>• <i>The Implementation Plan will likely include an Energy Master Plan, to be an element of the County’s Comprehensive Plan.</i></li> <li>• <i>One strong recommendation of the CEP is that the Task Force will be succeeded by a citizen stakeholder group with representation from diverse constituencies, including the business sector.</i></li> </ul>

NB1	<p>It's possible I'm missing something, but it just seems like the transportation element seems a little thin. Key facts are that transportation represents 50% of "unsolved problem" after other actions are taken, and that employment in the County exceeds population growth – meaning, I assume, that people are commuting to Arlington with impacts to the County's carbon footprint – and that the principal factors affecting emissions are automobile efficiency trends, which are outside the County's control.</p>	<ul style="list-style-type: none"> <li>• <i>The fact that the transportation element is "thin" is a credit to Arlington. Most of the actions and approaches that would normally be recommended are already in play in the County. Hence the recommendation is to basically take these initiatives "wider and deeper".</i></li> <li>• <i>In the CEP Final Report, the County Staff will summarize the pre-existing transportation strategies that directly affect energy efficiency and emissions.</i></li> <li>• <i>Arlington already has emissions lower than the US average.</i></li> <li>• <i>The fact that it "remains 50% of the problem" is a sign of the basic challenge of this segment – even with a good strategy, more transit use and highly efficient vehicles, there is still a challenge.</i></li> <li>• <i>The TWG does not feel the enforced costs and other constraints that other jurisdictions are considering are appropriate to include in the CEP at this time.</i></li> </ul>
NB2	<p>What would be helpful, to me at least, would be a breakdown of the forecast transportation emissions by class of trip, so that I and the task force members could get a sense of how much is in the County's control, and how much out of the County's control. Vehicle trips on 395 and I-66 are out of the County's control. Trips within Arlington are more within the County's control. How do these things two components of the County's footprint compare to one another?</p>	<ul style="list-style-type: none"> <li>• <i>Agreed – some clarity of the typical impacts will be included in the CEP Final Report.</i></li> </ul>
NB3	<p>Also, we're undertaking a 2040 regional transit system plan initiative that's well underway. I don't recall being contacted by anyone in the County to discuss what implications there might be for County strategies of broader transit expansion programs that might be possible – I was sort of expecting</p>	<ul style="list-style-type: none"> <li>• <i>The TWG will follow up immediately and make sure the CEP Final Report reflects the implications of this planning.</i></li> </ul>

	that.	
CM1	<p><u>Arlington’s Commitment</u></p> <p>a. In light of (1) the existing Cool Communities 80% reduction target,(2) the existing state-of-the-art and (3) the fact that other communities (albeit non-American) are currently achieving lower per capita emissions rates, we should consider a lower target now (e.g., 2.5-3.5 mt). At a minimum, need to mandate a re-consideration in 5-10 years to lower (and not allow it to be increased).</p> <p>b. At some point, the word “sustainability” was dropped from this effort. While it is subject to many different meanings, it is a helpful phrase because of its reminder to focus on (1) equity, (2) intergenerational benefits and responsibilities, (3) and balance of economics, environmental and other societal goals.</p> <p>c. There were several comments at the 9/17 meeting about costs – both from the business community and with regard to affordability of housing (and transportation costs connection to housing affordability). Associated costs and impacts do need to be addressed on both fronts and have to be on the table/within the scope of the CEP. That said - the analysis and framing must be in the context of life-cycle &amp; full cost accounting to ensure that the focus isn’t solely on initial capital/upfront costs, but factor in long-term savings and associated impacts. For example pushing low / mid income residents to the outer rings when they work in DC/inner ring suburbs isn’t either environmentally or economically affordable when assessing all costs/impacts. The policies that will be developed and incentives/technical assistance need to factor these in.</p>	<ul style="list-style-type: none"> <li>• <i>The choice of 4.5 was the TWG’s interpretation of the Task Force’s “breakthrough” guideline. The Cool Counties target would be 2.7 metric tons (m)t.</i></li> <li>• <i>The current recommendations come to just over 4 mt, which could be reduced further if DVP commits to the Virginia RPS targets.</i></li> <li>• <i>A truly breakthrough goal would be closer to 2 mt, especially in the context of cities like Copenhagen where they are seriously talking about net zero targets.</i></li> <li>• <i>The TWG is willing to accept a more challenging target if the TF advises.</i></li> <li>• <i>In any case, the topic is important enough that a narrative will be included in the CEP Final Report.</i></li> <li>• <i>The word (or focus on) “sustainability” has not been dropped; rather a shorthand term “CEP” is being used in the development process. The full title and what it represents is important and will be reinstated where applicable in the CEP Final Report, although the shorthand CEP may also be used for brevity.</i></li> </ul>
CM2	<p><u>CEP Governance</u></p> <p>a. Metrics. Should add an energy/fuel use measure(s). While energy cost and greenhouse gas (GHG) emissions are good proxies for efficiency, they present difficulties in year-to-year comparisons because of price &amp; energy source mix fluctuations especially for broader education/outreach efforts.</p>	<ul style="list-style-type: none"> <li>• <i>A) Agree with the fuel efficiency metric. One will be recommended in the CEP Final Report, recognizing fuel switching to cleaner fossil and renewable sources makes it a bit tricky to pick one that survives over decades.</i></li> <li>• <i>B) Agree and a three year cycle would be the</i></li> </ul>

	<p>b. Review/update Energy Master Plan. Suggest including a minimal review frequency (e.g., every 2-5 years) instead of “as needed”.</p> <p>c. Create an ongoing Community Energy advisory body. Support this conceptually, with a few concerns.</p> <p>i. Some concern about a separate commission/another layer/stovepipe. Consider slight modifications to E2C2’s charter to address (and also ensure CEP goals are mentioned in other related commissions – e.g., economic development, planning, transportation, community development, housing)?</p> <p>d. Support economic development to attract inbound investment. Fully supportive of this. Economic development strategy and activities must be integrally connected to the CEP. Should also link to (1) retention strategy of existing ‘greener’ organizations currently in Arlington, and (2) leverage existing/future “energy knowledge hub” noted in earlier recommendation.</p> <p>e. Other “community” assets/connections.</p> <p>i. Suggest including a stronger connection with and leveraging/bolstering of relevant NGO’s focused on/based in Arlington (e.g., ACE, Pew, TNC, NSF) as part of the aforementioned “energy knowledge hub” and as other assets for the County, neighborhoods and civic associations.</p> <p>ii. Suggest exploration of standing up a new NGO (or expanding an existing local NGO), similar to the Energy Trust of Oregon (<a href="http://energytrust.org/">http://energytrust.org/</a>), in partnership with Dominion/Washington Gas/other Northern VA counties. Such a model can leverage funding (e.g., public benefits funds, county, foundation grants) and provide flexibility (in part to address some of the Dillon rule constraints) for focused technical assistance (e.g., energy audits) and funding/rebate/loan streams or other incentives - especially for residential and small business energy efficiency/renewable energy improvements.</p>	<p><i>recommendation from the TWG</i></p> <ul style="list-style-type: none"> <li>• <i>C) As described above, the advisory group will consist of diverse range of stakeholders and interests, and integration with other Commissions is a priority</i></li> <li>• <i>D) This is one of the most underestimated aspects of a successful energy and sustainability plan for a community, and its value far outweighs the operational savings and investments.</i></li> <li>• <i>E) – Agree that a regional approach, at a minimum Northern VA Counties, and ideally a larger grouping would leverage the pioneering efforts of Loudoun County and Arlington County, and this is explicitly recommended following sub-regional examples from the USA, Canada and Europe. Also agree that Arlington has outstanding assets with influences that reach far beyond the County, and as such has both an opportunity and a responsibility to help facilitate such a wider structure.</i></li> </ul>
<p>CM3</p>	<p><u>Building efficiency</u></p> <p>a. Enthusiastically supportive of a robust labeling program &amp; challenge</p>	<ul style="list-style-type: none"> <li>• <i>Wonderful – early adopters are crucial for the success of a voluntary Energy Performance Labeling (EPL) program.</i></li> </ul>

	<p>initiative. SRA is happy to work with our landlord (GMU Foundation) and property manager (Boston Properties) to participate in a pilot program &amp; work with business peers on a challenge initiative.</p> <p>b. In all efficiency and RE efforts (commercial, SF residential, MF residential) – need to ensure there are focused goals/policies/incentives for tenants &amp; to address current perverse incentives among developers-owners-tenants.</p>	<p><i>Arlington already has 35 buildings listed under the Energy Star program, and these could be early adopters of labeling.</i></p> <ul style="list-style-type: none"> <li>• <i>EPL's and good operating data are the first steps in restructuring purchase contracts and leases to remove perverse incentives.</i></li> </ul>
CM4	<p><u>Neighborhood Efficiency &amp; Reliable Clean/RE Supplies</u></p> <p>a. With decline of PACE program feasibility (hopefully temporary), consider exploration of community solar farms to leverage many abandoned and/or under-used smaller parcels throughout the community – for long-term or as interim uses. Potential to leverage federal and state brownfields and RE funding sources and financial incentives.</p>	<ul style="list-style-type: none"> <li>• <i>In the higher density neighborhoods, the potential to split investments between the shorter term building retrofits and the longer term DE infrastructure opens up new financing options in addition to a (hopefully) reenergized PACE.</i></li> <li>• <i>In the lower density areas, the market pressure from EPL's may also stimulate seller/renter investments and ultimately private efficiency financing.</i></li> <li>• <i>The CEP calls for 160MW solar, a level that will require systematic approaches to large scale deployment on rooftops, wall cladding for new construction and deep renovation, and where appropriate, ground based installations. The creation of a municipal DE utility may open up ownership and operating flexibility for these installations to achieve higher operating performance and accelerated deployment.</i></li> </ul>
CM5	<p><u>Transportation</u></p> <p>a. Should work to better integrate transportation (and telecom to the extent connected to emissions reductions from telework/teleconferences/etc.) into the CEP – now or in the near future.</p> <p>b. At some point, yes, parking/driving pricing options should be considered; clearly must be in conjunction with ensuring with real multi-modal choices, especially transit, bike/pedestrian improvements.</p>	<ul style="list-style-type: none"> <li>• <i>See earlier comments on transportation – the TWG is essentially endorsing the existing transportation strategies of Arlington County, with aggressive deployment of strategies to encourage transit use and smaller, more efficient vehicles including electric vehicles (EV's)</i></li> <li>• <i>The same comments apply relative to road / parking pricing and allocation of road space. To bring transportation emissions down faster will demand a more</i></li> </ul>

CM6	<p><u>Cross-Cutting Initiatives</u></p> <p>a. Concur with importance of connection to economic development and workforce development strategies &amp; note that it should address retention, not just recruitment. SRA is happy to participate in mentoring/incubation program.</p> <p>b. Concur with need to connect incentives and policies with planning and tax policies (e.g., density/tax tied to energy performance).</p>	<p><i>aggressive economic approach.</i></p> <ul style="list-style-type: none"> <li>• <i>Noted - The aspects of retaining/retention are well taken and will be emphasized in the CEP Final Report.</i></li> <li>• <i>SRA's willingness to support is welcome and will be noted in Community Assets Section of the CEP Final Report.</i></li> <li>• <i>The incentives of density and tax help defray immediate costs with future value and are the obvious and essential incentives for the County to consider.</i></li> <li>• <i>Further, where density justifies it, DE will split investments between entities with different investment and return horizons, potentially reducing the immediate costs for the property developer or renovator.</i></li> </ul>
BC1	<p>First, we applaud Arlington for engaging a wide array of relevant stakeholders in the development of the Community Energy Plan via the Community Energy and Sustainability Task Force. A wise complementary measure would be to engage third party agencies with expertise in the development of successful municipal energy policy. The stakeholders currently party to the CES Task Force possess invaluable local knowledge regarding Arlington's current and potential energy-related initiatives. Organizations that can bring to bear the experience of other local governments that have undertaken similar endeavors can help the task force learn from and improve upon the efforts of those entities.</p> <p>JBG believes that three organizations in particular deserve special mention in this regard. First, ICLEI-Local Governments for Sustainability is an international association of local governments with over 20 years of experience providing technical consulting and information services to support local governments in the implementation of sustainable development at the local level. Second, The United States Green Building Council is the foremost repository of green building research worldwide.</p>	<ul style="list-style-type: none"> <li>• <i>Arlington should be proud of the high degree of community engagement and expertise. This is a good foundation for successful deployment of the CEP.</i></li> <li>• <i>The CEP is the first step in establishing a long-term strategic direction, which will need to be translated immediately into the Implementation Plan. Ultimately, energy and emissions management will be an embedded aspect of all planning, business and community activities.</i></li> <li>• <i>The experience of organizations like ICLEI, USGBC, and Efficient Cities Network will be valuable to Arlington in moving the CEP from the directional phase into the embedded implementation phase.</i></li> <li>• <i>Arlington's willingness to embrace global benchmarking has resulted in a CEP that is also looking deeply at the infrastructure, efficiency and emissions of some key parts of the County's energy supply system, areas where other expertise and counsel might also be useful.</i></li> </ul>

	<p>Last summer, the New York Chapter of the USGBC collaborated with the New York City Mayor’s Office to form New York’s Green Codes Task Force; an entity dedicated to the comprehensive overhaul of New York City’s building code for the sake of cost-effectively promoting more sustainable building practices citywide. A similar, but perhaps smaller and less formal collaboration between Arlington County and the National Capital Region Chapter of the USGBC could prove fruitful in this same regard. Finally, the Efficiency Cities Network is an informal policy learning network of local governments and non-government groups with the objective of helping cities achieve large scale energy retrofitting of their urban building stock. JBG strongly recommends that the CES Task Force contact and pursue partnerships with all three of these organizations immediately.</p>	<ul style="list-style-type: none"> <li>•</li> </ul>
BC2	<p>Second, JBG would like to see the next iteration of the Community Energy Plan provide clearer timelines and prioritization of objectives, with specific details about required measures. For example, the Community Energy Plan leads with and places its strongest emphasis on retrofitting Arlington’s existing building stock and establishing building codes that place greater emphasis on energy efficiency. JBG supports these goals broadly, but cannot endorse a plan that fails to recognize the complexity of trying to achieve these objectives in large, multi-tenanted buildings. In particular, large building owners are still experimenting with methods to capture the financial benefits of energy efficiency investments in buildings that have complex and varied lease structures among their various tenants. Certain strategies that the Community Energy Plan proposes, such as energy performance labeling, can help in this regard and should be required and implemented before strong retrofitting mandates become a reality. JBG also recommends that Arlington also let large building owner pilot so-called “green leases” to capture the financial benefits of their energy efficiency investments before they are required to make these investments. In short,</p>	<ul style="list-style-type: none"> <li>• <i>Many separate points in this comment</i></li> <li>• <i>The CEP does have year-on-year goals for each major sector, and the degree to which they are detailed will be a question of the final report design.</i></li> <li>• <i>The TWG is proposing 2007 (baseline), 2016 (implementation plus five), 2025, and 2050 as key milestone years for the CEP.</i></li> <li>• <i>Transparency of energy data through both physical means in retrofitting such as sub-metering, and disclosure through EPL’s is a prerequisite to redesign tenant contracts, which is why they are considered crucial to the overall success of the CEP.</i></li> <li>• <i>In an area designated for DE, which is a large part of the higher density areas, the balance of investments will change between the future DE operator and the property owner. This may even involve some early acquisition of energy assets, again changing the basic business model.</i></li> </ul>

	Arlington should not require building owners to make energy efficiency investments until those owners can be sure that they will reap the financial return on these investments.	<ul style="list-style-type: none"> <li>•</li> </ul>
BC3	In this same regard, Arlington can help building owners capture the full return on their energy efficiency investments by working with utility companies to help building owners monetize efficiency improvements. Mechanisms like forward capacity markets, feed-in tariffs, and net metering all enable building owners to sell abated energy demand to utility companies in lieu of new energy supply. Utility companies can buy these so-called “negawatts” at a much cheaper price than equivalent megawatts of supply, providing financial benefits not only for building owners but also for utility companies. Some such measures have already been made possible under the Virginia Electric Utility Act and JBG would like to see Arlington County help facilitate further participation in this practice for the benefit of building owners and utility companies alike.	<ul style="list-style-type: none"> <li>• <i>Completely agree with the value of all these incentives to team efficiency with clean and renewable energy solutions in the wider utility grids.</i></li> <li>• <i>One of the roles of the ongoing (yet to be established) County Energy Team will to be a repository of all current and future incentives from all sources including utilities, along with knowledge of resources and expertise to implement them.</i></li> <li>• <i>To date, VA has not embraced Feed-in Tariffs, but is already actively offering DSM and net-metering options.</i></li> <li>• <i>The County Energy Team has the future role to work with neighboring jurisdictions, including Northern VA Counties and Alexandria to develop a sub-regional CEP. Larger groupings will clearly have more ability to support changing policy agendas in both Richmond and DC.</i></li> <li>• <i>Many efficiency incentives are focused on electricity, a critical component, but the need to restructure the heat side of the equation should not be overlooked, as this can change the nature and value of current and future incentives.</i></li> </ul>
BC4	Finally, JBG strongly supports Arlington County’s objective of revising its procurement policy to ensure that County-owned buildings operate as efficiently as possible. Our firm suggests that Arlington also pursue similar initiatives with regard to other County-owned property such as street lights and traffic lights. The economic return on such investments justifies their upfront cost just as quickly as the other investments a revision of the procurement policy would require. These actions also provide a very visible	<ul style="list-style-type: none"> <li>• <i>First, thank you for the support.</i></li> <li>• <i>Agree - This is crucial, since over 20% of all energy is estimated to come from electrical use in buildings unrelated to heating or cooling. Therefore, procurement and management of interior fittings and lighting is a key aspect of achieving the overall building efficiency goals.</i></li> </ul>

	<p>level of county commitment to the spirit and mandates established by the Task Force.</p>	<ul style="list-style-type: none"> <li>• <i>In the big picture of the CEP, street lighting/signaling is a small element and is included in the County Building electricity usage. That being said, it is a highly visible and substantial electricity user for County operations. Arlington is a leader in the region in its use of LED streetlights and traffic signals, with thousands of street lights converted in 2010 to LEDs.</i></li> <li>• <i>The County and Schools can act as visible beacons of excellence in implementing energy and climate efficient best practices, possibly by using some of the GSA, DOD, and EU approaches and recommendations. However at a County level, the County properties represent less than 4% of the total emissions of the County, so such a program if only applied to them, will have limited direct impact on the total County energy efficiency.</i></li> <li>• <i>It would be ideal if at least some private or non-profit entities teamed with the County in this initiative to accelerate adoption of best practice procurement.</i></li> <li>• <i>The procurement of new buildings, rental space and renovation projects are included in an efficient procurement policy, so in the long-term, it is a key factor of achieving the overall efficiency of the built environment.</i></li> </ul>
<p>LF1</p>	<p>Residential buildings account for 26% of the County’s overall GHGs, and a significant part of this is associated with single-family homes. Reducing energy consumption in neighborhoods with single-family homes would require actions on the part of individual homeowners. A major outreach effort would be needed to reach thousands of homeowners, and the preliminary recommendations (page 5) propose a role for civic associations: “Arlington already has well-established local neighborhood structures in its Civic Associations, which can serve as a powerful base for the CEP.”</p>	<ul style="list-style-type: none"> <li>• <i>Agreed – noted and will be recommended in the CEP Final Report.</i></li> <li>• <i>As an added comment, there are similar challenges in neighboring counties, and even wider alliances might help accelerate this challenging aspect. This is one of the roles of the (yet to be formed) County Energy Team.</i></li> <li>• <i>Creating effective approaches for retrofitting single family</i></li> </ul>

	<p>Civic associations undoubtedly could help in achieving these goals, but there are major challenges. Civic associations function most effectively when they are dealing with issues of immediate concern to their members. It would be more difficult for most civic associations to sustain a long-term effort to persuade their members to improve energy efficiency of homes. The outreach effort would benefit if the County gains the support of the Arlington County Civic Federation, which can influence the leaders of civic associations across the county through meetings and newsletters.</p>	<p><i>homes and low-density commercial buildings is a global challenge, and nobody has come up with a perfect answer other than mandated (and often heavily subsidized) renovation and validation approaches, with intensifying buildings codes (Germany and Scandinavia are the examples of this approach).</i></p> <ul style="list-style-type: none"> <li>• <i>Assuming this is not politically realistic for the coming years, the CEP is at a minimum recommending transparency through voluntary EPL's and the County Energy Team acting as a clearing house for incentive information and expertise, with the strong engagement of the civic associations and (at your suggestion) the Arlington County Civic Federation.</i></li> <li>• <i>The basic challenge is to find effective ways to consolidate hundreds, or even thousands, of smallish financial benefits in such a way that it attracts the appropriate focus and investments. There are some recent innovations in "Consumer Efficiency Clubs" coming from one or two energy services companies in Germany that are attempting to redefine a business model. Arlington could potentially be a prototype for such a "micro-financing" approach, possibly with the support of a local bank and one or two civic associations. Several non-profit organizations in MD have joined to negotiate lower electric rates. In Arlington, there are examples of single-family homeowners creating an informal co-op to purchase multiple solar PV installations at a rate lower than one would pay for a single installation.</i></li> </ul>
LF2	<p>The recommendations (page 5) also say: "Each neighborhood will be challenged to develop its own energy master plan." A model for this might</p>	<ul style="list-style-type: none"> <li>• <i>Agreed - developing some "how-to" templates for these neighborhood energy plans would accelerate the process.</i></li> </ul>

	<p>be efforts two years ago to foster competition among neighborhoods in promoting backyard wildlife habitat certification. However, participation in that program was uneven: some neighborhoods did well but others didn't. To have a significant impact, CEP outreach efforts would require the enthusiastic support of most civic associations.</p>	<p><i>One such example has been drafted for Crystal City (at least at the level of the Scope of Work) for a high density neighborhood. A similar one should to be developed for lower and mixed density neighborhoods as part of the Implementation Plan.</i></p>
<p>LF3</p>	<p>It could help if a new dimension – tree canopy – were added to neighborhood energy master plans. Mature trees can lower air temperatures by several degrees. When trees also shade homes, they can reduce energy needed for air conditioning by as much as 30% on hot summer days. Moreover, those energy savings are achieved on summer afternoons, which are periods of peak consumption.</p> <p>Tree canopy depends on planting young trees and extending the lives of mature trees:</p> <ul style="list-style-type: none"> <li>• In relation to planting young trees, all Arlington residential neighborhoods could accommodate at least modest increases in tree canopy, and some could accommodate substantial increases. The County could expand current outreach programs for tree planting while also helping residents learn how to plant and care for young trees. These efforts could provide significant energy savings over the long term.</li> <li>• On the other hand, preserving existing mature trees can help save energy in the near term. When a canopy tree dies prematurely, the environmental benefits it has been providing are lost for many years. Outreach programs could help residents to recognize the many benefits that trees provide and help them learn how to take better care of their trees.</li> </ul> <p>Both planting young trees and keeping mature trees healthy could make significant contributions to reducing energy consumption. Moreover, public support for these initiatives could be expected to grow as residents come to appreciate the benefits that trees provide.</p>	<ul style="list-style-type: none"> <li>• <i>Agreed – the tree canopy and the judicious use of landscaping in general can be used to reduce heating, cooling, lighting and transportation demands.</i></li> <li>• <i>This aspect will be included in the appropriate narratives in the CEP Final Report.</i></li> <li>• <i>The tactical approaches and outreach needed to preserve and expand the urban tree canopy is beyond the scope of the CEP. The Community Assets Section of the CEP Final Report can definitely point readers to appropriate resources – any recommendations should be sent to the TWG.</i></li> </ul>

<p>TT1</p>	<p>My main comment is that I think we want this to be an aggressive and ambitious plan that will make the next generation of Arlingtonians even less car dependent than we are and I don't think this version gets us there.</p> <p>The plan essentially suggests a glide path on our current trajectory for transportation is adequate. I think that might not allow us to reach the goals stated in the plan and is also not the right message to send. I understand that the plan focuses on other aspects of our energy consumption because we already have land use and transportation plans and planning activities, but this document should also be supportive of continual improvement in our land use and transportation plans, policies, and efforts.</p> <p>Specific wording changes to the document as described below will help alleviate some of the messaging issue, but I think there may be a larger substantive problem involved. The document seems to count on our current policies in terms of reductions needed to hit the target. I find it hard to believe that we can just coast to the goal using our "current planning." If it is correct that we can get there using our "current planning", then I think it also argues strongly for us to lower our target and use even more transportation and land use measures to hit it.</p>	<ul style="list-style-type: none"> <li>• <i>The TWG agrees that the recommended transportation strategy does not achieve the aggressive IPCC or Cool Counties Guidelines, and may inhibit Arlington from achieving other livability goals.</i></li> <li>• <i>If the Task Force collectively advises the TWG to develop a transportation and urban design recommendation that will approach a 1mt/capita transportation emissions level, this can be done as part of the CEP Final Report, at least in the broad elements.</i></li> <li>• <i>This is a Task Force/Community Guidance decision, recognizing that such an aggressive recommendation will be highly controversial with many members of the community.</i></li> </ul>
<p>TT2</p>	<p>The final bullet in the transportation section (Page 9) is particularly problematic for a variety of reasons. First, it essentially says that transportation representing 50% of emissions in 2050 compared to 28% today is okay and doing anything to address that is purely optional.</p> <p>Second, it contains language that is weak and equivocal compared to the rest of the document ("Some combination of the following measures could be considered to close this gap; none of these may be immediately politically popular. The TWG is not recommending these at this time.")</p>	<ul style="list-style-type: none"> <li>• <i>Agreed – see comments above on transportation.</i></li> <li>• <i>It was assumed the Task Force was already familiar with the pre-existing Arlington County transportation strategies, so they were not repeated in the Preliminary Recommendations document. It appears this decision caused some misunderstanding with the readers and the TWG collectively apologizes for this. It is the intention of the TWG to include them in the CEP Final Report, to be developed in coordination with the County Transportation Department.</i></li> </ul>

	<p>Third, it mentions just three possible measures out of the universe of things that might be done to address transportation-related emissions. Why these three alone? Where is “expand transit capacity”? Where is “increase walkability around transit centers and other dense nodes”? Where are the hundreds of other things we could do in this arena? I think that bullet needs to be reworked from top to bottom.</p>	<ul style="list-style-type: none"> <li>• <i>Virtually all future growth in Arlington will occur along transit corridors, and expanded transit capacity and increased walkability are very much planned for these areas.</i></li> </ul>
TT3	<p>This energy planning effort needs to be thoroughly crosswalked with our transportation planning efforts. More of the specific measures we already intend to take as a County should be mentioned and supported in this plan and pointed out as essential elements for reaching out energy goals.</p>	<ul style="list-style-type: none"> <li>• <i>See above comments on transportation.</i></li> </ul>
TT4	<p>Change the title of Section 9 to: “Competitive, Efficient and Attractive Transportation and Smart Land Use”</p>	<ul style="list-style-type: none"> <li>• <i>The highlighting of land use and urban design as a huge factor in both overall transportation efficiency and the efficiency of the built environment is very important and will be noted in multiple places throughout the CEP Final Report.</i></li> </ul>
TT5	<p>Edit first bullet, Page 8 to read:</p> <ul style="list-style-type: none"> <li>• <u>Transport emissions driven more by employment growth than population growth</u></li> </ul> <p>The County has a challenge since jobs’ growth is greater than population growth, creating a consistent 15% emissions “headwind” from non-residents to be overcome just to keep emissions constant. This is obviously mitigated by restricted parking and attractive transit options, both of which are a feature in the current planning. These measures will need to be augmented by other policies and approaches in order to further reduce this “headwind” effect and meet the goals in this plan.</p>	<ul style="list-style-type: none"> <li>• <i>See above comments on transportation.</i></li> <li>• <i>The balance is always to make Arlington attractive as a work or play destination, without making transportation choices overly discouraging.</i></li> <li>• <i>The formula is well known</i> <ul style="list-style-type: none"> <li>– <i>frequent, fast, affordable, clean, safe, comfortable mass transit with effective multi-modal linkages</i></li> <li>– <i>limited expensive parking that favors low emissions four-wheelers and two-wheelers</i></li> <li>– <i>an increasing percentage of road space allocated to two-wheelers, walking, mass transit, ride share, zip-cars and taxis</i></li> <li>– <i>automatic intersection priorities to mass transit</i></li> <li>– <i>demand based road fees that favor low emission vehicles (LEV’s)</i></li> </ul> </li> </ul>

		<p>- and a few others.</p> <ul style="list-style-type: none"> <li>• All these are in place in a few cities and are effective. A good big city example is Berlin, and two smaller city examples are Zurich and Copenhagen. However, even these cities continue to struggle with rush hour congestion and stubborn emissions levels.</li> <li>• At least one city (Copenhagen) is proposing to be the world's first near zero transportation emissions city with a controversial strategy to vastly over-proportionally favor EV's. Arlington could take this on as a leapfrog strategy – not totally crazy - but would need a breakthrough level of community and political support.</li> </ul>
TT6	<p>Edit third bullet, Page 8 to read:</p> <ul style="list-style-type: none"> <li>• <u>Continued strengthening of Arlington's comprehensive transport strategy is key</u></li> </ul> <p>Arlington has an approach to community nodes to encourage a higher transit usage, which contributes an additional 15% efficiency gain. This is closely related to the development of transit-oriented development with walking friendly neighborhoods, bike lanes, EV charging stations, parking privileges, all collectively estimated to contribute another 8% increase in efficiency. The wide availability of Bike Shares and Car Shares encourage overall fleet efficiency and mode mix changes, and supports these efficiencies. These measures will need to be augmented by other policies and approaches in order to reduce the “headwind” effect and meet the goals in this plan.</p>	<ul style="list-style-type: none"> <li>• See above comments on transportation.</li> </ul>
MA1	<p>p. 1, Item #2</p> <p>The figures that discuss electricity &amp; natural gas energy use and GHG emissions are somewhat confusing. The report indicates that the generation and use of electricity accounts for 64% of all fuel consumed and 56% of all emissions. On a full fuel cycle, site-to-source basis, GHGs from electricity</p>	<ul style="list-style-type: none"> <li>• Thanks for the feedback – the TWG will re-evaluate these graphics as used in the CEP Final Report. The challenge of effectively representing “site” and “source” energy is a common one and we will try to clarify.</li> <li>• The bottom line is that 100 units of fuel is making, at best,</li> </ul>

	<p>in our region far exceed GHGs emitted in conventional use. It appears that the report attempts to capture this by indicating that only a small percentage of electricity is “useful” (19% of 54%) Maybe these pie charts could benefit from additional labeling. The reader is left with the impression that GHG emissions from electricity are less than those produced by natural gas.</p>	<p><i>35 units of electricity, which is further degraded by inefficient use in buildings and other equipment.</i></p>
MA2	<p>p. 4, Item 5. All public labeling and efficiency statistics should be provided on a site-to-source basis, consistent with the recommendations of the National Academies.</p>	<ul style="list-style-type: none"> <li>• <i>Agreed – the general guidelines of the NAS, the emerging ASHRAE, and the current EU approaches represent the energy use on a source-to-service basis. In a similar vein, the GHG indicator on the EPL would be the total of Scope 1 (direct) and Scope 2 (indirect). The ASHRAE prototype does not have a GHG indicator, so here the CEP recommendation will be to adopt the EU approach for the Arlington voluntary program.</i></li> </ul>
MA3	<p>p. 6, Item 8. What is meant by “The legal framework for the DE Utility will be created immediately ... with the County, Washington Gas (WGL) and Dominion Virginia Power (DVP)”? What time frame equates to “immediately.” The investigation of an appropriate framework and governance structure has been identified as a task item in the proposed SOW for the Crystal City IEMP. The IEMP should be completed before a “framework” is created. An IEMP and load forecasts will need to be provided to Washington Gas within a time frame that will enable sufficient system planning and construction time to ensure the economic, safe and reliable delivery of natural gas.  Any use of bio-gas delivery via the natural gas pipeline system would require testing before a determination could be made for delivery by the natural gas distribution system.</p>	<ul style="list-style-type: none"> <li>• <i>The CEP will include a general recommendation that the basic legal framework that will allow a single DE Utility or multiple DE Utilities to be created early on in the implementation phase. This will give some degree of clarity to developers, building owners and buildings operators as they prepare for DE connection.</i></li> <li>• <i>The CEP will include various configurations known to be effective around the world, but not make a definitive recommendation for Arlington County.</i></li> <li>• <i>On timing, if we assume the CEP is approved in April 2011, and the County Energy Implementation Plan takes a further 8 months to finalize to be incorporated into planning and policy, “immediate” would mean early 2012.</i></li> <li>• <i>The DG-IEMP for Crystal City is essentially acting as a prototyping of this structure for a development that collectively represents 20% of Arlington’s energy use.</i></li> </ul>

MA4	<p>p.8, Item 9 A strategy to integrate CNG vehicles should be adopted. Heavy-duty CNG vehicles, like trash trucks, could dramatically reduce GHG emissions from diesel vehicles; a similar successful program is in place in Montgomery County. Likewise CNG powered fleet vehicles, like taxis connected with National Airport, could make a positive contribution to both GHG reduction and clean air quality. Possibilities exist to create a network throughout the region.</p>	<ul style="list-style-type: none"> <li>• <i>Agree – CNG, LS-Diesel, and CNG-, Diesel- or Gasoline-Hybrids are the fossil ways to go for the foreseeable future. On heavy vehicles CNG definitely has the edge for the moment, and may gain the edge in light vehicles (see Camry prototype CNG Hybrid)</i></li> <li>• <i>Arlington has already dedicated its own transit fleet (ART buses) to CNG, with delivery of our first CNG-hybrid imminent.</i></li> </ul>  <ul style="list-style-type: none"> <li>• <i>The idea of a visible network of low-emissions taxis and Zip Cars is attractive, possibly with visible common branding with other modalities and vehicles. It is too early to get into the debate over the “best” drive train or fuel. This could even be an experimental effort with similarly branded fleets, but with percentage of two or three drive trains and fuel types. It could be a nice competitive effort between VW (TDI), Ford (gasoline Hybrid), Peugeot (LS Diesel Hybrid) and Toyota (CNG Hybrid) with a local university keeping score! If Loudoun County were included, would provide a comparison of longer highway journeys.</i></li> </ul>
BP1	<p>Page 1. Comment: Please add a Table of Contents.</p>	<ul style="list-style-type: none"> <li>• <i>The Preliminary Recommendations document was intended as a discussion document and not a formal report. The CEP Final Report will be structured as a formal report and will include a Table of Contents.</i></li> </ul>
BP2	<p>Page 4, paragraph 5. Renovation is critical.</p>	<ul style="list-style-type: none"> <li>• <i>The experience from around the world indicates you have</i></li> </ul>

	<p>Comment: The concept of requiring increased energy efficiency against the 2007 baseline for residential and commercial renovations as the years get closer to 2050 makes sense and is a key element for the plan's success. The recommendation is to expand on how Arlington County will enforce this, especially if studies have shown commercial buildings built to existing code operate at 20-30 percent less energy efficiency than designed. What support mechanisms, such as property tax breaks, will be available to residents who cannot afford the upgrade as presumably the longer they wait, the more expensive or intensive the renovation will become?</p>	<p><i>raised a very challenging question that the Task Force and the Community needs to take on board. The TWG guidance was to maximize the use of voluntary measures wherever possible as it related to building efficiency. The reasons were both based on community acceptance and the reality of the Dillon Rule which would require changes in state building code to make these recommendations mandatory.</i></p> <ul style="list-style-type: none"> <li>• <i>As of today, the CEP recommendation is for EPL's to gain transparency, density incentives where renovation and new construction may be mixed, and some tax breaks. The CEP also includes recommendations for relatively modest efficiency improvements in the first ten years, based on the improved operation, internal equipment and building envelope, all supported by EPL's. The escalation advances in a relatively graded way.</i></li> <li>• <i>Combined with the impacts of DE, these should be achieved, but the Community should have no illusions that this will happen by itself – constant vigilance will be needed.</i></li> <li>• <i>The planning requirements for major renovations requiring County approval should be adjusted to make the energy efficiency and labeling expectations explicit, and ideally, required.</i></li> <li>• <i>See earlier comments on low-density incentives.</i></li> </ul>
BP3	<p>Page 4, paragraph 5. Enhanced public awareness is essential. Comment: The ASHRAE building energy label, while less detailed than European counterparts, appears to be widely accepted by the CES Task Force. If Arlington County is willing to enforce increased energy efficiency during renovations, why not mandate the use of a building energy performance label?</p>	<ul style="list-style-type: none"> <li>• <i>The ASHRAE label is very similar to the EU label as used in many countries, with one exception that it doesn't have a GHG indicator. For both educational and other reasons, the CEP includes a recommendation for both an energy and GHG EPL. The U.S. DOE and EPA are also developing building labeling designs, and there may be</i></li> </ul>

		<p><i>choices before any one label emerges as the standard in the U.S.</i></p> <ul style="list-style-type: none"> <li><i>• This could even be done collaboratively with ASHRAE and other organizations as a national prototype. Endorsement of the value for the DOD would be useful, especially given the US Military facilities have similar transparency and performance challenges. By using US facilities outside the County, this could even be a multi-county benchmarking exercise.</i></li> <li><i>• On the same basis, if the County leadership and the community as a whole, starting with the Task Force, are willing to make EPL's mandatory, the TWG would positively support that recommendation, pending Dillon's Rule research.</i></li> </ul>
BP4	<p>Page 6. District Energy with distributed combined heat and power generation is key. Comment: Please consider listing some of the benefits of DE, such as elimination or reduction of penthouse and/or basement MEP equipment, freeing up those spaces for conversion to usable or marketable spaces.</p>	<ul style="list-style-type: none"> <li><i>• Agreed – The various benefits of DE discussed in the TF meeting for all concerned parties will be explicitly covered in the CEP Final Report. As you note, DE frees up leasable or otherwise usable space, and introduces fuel flexibility (including renewables), and system reliability, and decreases maintenance costs for property managers, among other benefits.</i></li> </ul>
BP5	<p>Page 7. Lower density neighborhoods are critical. Comment: Please consider adding "biomass" to the solutions list.</p>	<ul style="list-style-type: none"> <li><i>• Agreed – for many low density homes and even small commercial properties, biomass heating and domestic hot water using a fuel source such as wood pellets or chips is a viable, low-emissions option. This is also a viable fuel option for small areas of networked buildings.</i></li> </ul>
BP6	<p>Page 8, paragraph 9. Maintaining Arlington's comprehensive transport strategy is key. Comment: Respectfully, without knowing the details of the Arlington mass transportation plan, the County may wish to consider serving as a municipal</p>	<ul style="list-style-type: none"> <li><i>• Agreed – see above comments on transportation, especially CNG as this falls in the same/similar category.</i></li> <li><i>• Agreed. Arlington is home to the nation's first all-hybrid</i></li> </ul>

	<p>test bed for electric battery powered city buses. The Pentagon is in the initial cost-benefit analysis stage of working with the Design Line company to consider procuring or leasing an electric bus which uses induction for relatively quick day time booster charges on top of the nightly recharging.</p> <p><a href="http://www.designlinecorporation.com/index2.htm">http://www.designlinecorporation.com/index2.htm</a></p> <p>This is provided as an example of an innovative technology that is in its initial municipal deployment stages. So the recommendation would be to ensure the Arlington County mass transportation plan constantly explores the feasibility of deploying new alternate fuel technologies.</p>	<p><i>taxicab fleet (EnviroCab), and the County is taking delivery of a CNG-hybrid bus from DesignLine later this year.</i></p> <ul style="list-style-type: none"> <li>• <i>Partnerships with innovative companies and their technologies are very attractive for Arlington and the private sector.</i></li> </ul>
BP7	<p>Page 9. Community education and engagement is key. Comment: Please consider adding narrative about pushing the CEP to K-12-16 schools in Arlington County in order to begin to "convert" future generations of residents.</p>	<ul style="list-style-type: none"> <li>• <i>Agree – This will be incorporated in the Education and Workforce Development section of the CEP Final Report.</i></li> </ul>
BP8	<p>Page 10. Establish technical interoperability guideline to gain the benefits of an open-platform approach. Comment: Please consider adding narrative about the international Building Information Modeling initiative.</p>	<ul style="list-style-type: none"> <li>• <i>Agree – There is a need for recognized and mutually acceptable building modeling approaches, especially where EPL's on new buildings are planned. This aspect will be addressed in the CEP Final Report as a short narrative.</i></li> </ul>
BP9	<p>Page 11. Comment: Please consider adding an Appendix. In order to better ensure buy-in, support, and participation by residents and communities of interest, request consideration for adding an Appendix entitled "Tools". Tools would be in a simple table or matrix format and would answer the basic question: "I'm a __Fill-in-the-Blank__. What can I do?" Suggest listing what the following could do - urban planners, designers, constructors, operator-maintainers, regulators, insurers, venture-capitalists, K-12-16 students, VA state government, federal government, city and county governments in this Region, business groups, civic associations, renters, homeowners, NCPC, and MWCOG, libraries, and schools, etc.</p>	<ul style="list-style-type: none"> <li>• <i>This would be an attractive and useful annex to add – if the Task Force Member were prepared to take the lead it can be incorporated.</i></li> </ul>

	Sample matrix to follow under separate cover.	
CS1	Could the term ‘climate change’ be a red flag for many people and maybe the consistent use of ‘reduce greenhouse gas emissions’ would be appropriate?	<ul style="list-style-type: none"> <li>• Agree - while the TWG does not feel ‘climate change’ is necessarily a red flag given the current visibility, we will be judicious in use of the term.</li> <li>• An exception would be where the reference is specific to possible climate change legislation or the public debate itself.</li> <li>• It is also important to recognize the dual value of GHG as both a relatively good fuel efficiency surrogate for the foreseeable future and a climate change risk mitigation indicator.</li> </ul>
CS2	Since “GHG emissions per resident per year is recommended as a surrogate for energy productivity,” would it be useful to have a sidebar or text box explaining the use of GHG emissions as a proxy in the Final Report and Executive Summary?	<ul style="list-style-type: none"> <li>• Surrogate for “energy productivity” and “fuel efficiency”.</li> <li>• Further explanation to be included in CEP Final Report.</li> </ul>
CS3	Regarding Sec 2 – Baseline - all transport fuels <u>except jet fuel</u> are included in our transport totals, including workers and visitors to/from DoD sites and DCA, as well as transport fuels used in on-campus vehicular operations. Only jet fuel is omitted.	<ul style="list-style-type: none"> <li>• Confirm– DCA and all other airborne operations are excluded and this will be clarified in the CEP Final Report</li> <li>• This is one of the reasons for the gap between the US national GHG index of 21mt/capita and Arlington 14 mt.</li> </ul>
CS4	The seven key measures of success would benefit from add’l definition or intent before they are included them in the report.	<ul style="list-style-type: none"> <li>• Agree – recommended indexes will be included in the CEP Final Report.</li> </ul>
CS5	Sec 5: Renovation is <b>critical</b> , New construction is <b>important</b> , Enhanced public awareness is <b>essential</b> . The report should emphasize and make much more explicit that multiple issues should be addressed simultaneously during implementation. Also, including the Loading Order concept early is essential for broader understanding here.	<ul style="list-style-type: none"> <li>• Agree – The successful CEP implementation will come from doing many things in parallel – effectively!</li> <li>• Also essential is maintaining a rigorous discipline around the loading order priorities day after day, year after year.</li> <li>• The Loading Order will be prominent in the CEP Executive Summary and Final Report.</li> <li>• Neither is easy to maintain nor communicate – any suggestions welcome as we move to final drafts and</li> </ul>

		<i>summaries.</i>
CS6	Sec 5 – re: “energy efficient procurement policy for County purchases”. Should the responsibility for guidelines rest with project staff rather than the County Purchasing Office?	<ul style="list-style-type: none"> <li>• <i>Procurements policies are codified in the Procurement Office and can be further articulated through Administrative Regulations. For this purpose it is critical that project staff understand and are accountable for compliance with energy-related and other ‘green’ purchasing policies.</i></li> </ul>
CS7	Sec 8 - Is it consistent to have 2014 for the start of CHP deployment and 2015 for the start of DE deployment?	<ul style="list-style-type: none"> <li>• <i>It is consistent. The first CHP will likely go in before DE is developed. However, widespread CHP is unlikely to occur without a thermal utility for use of the heat by-product..</i></li> </ul>
MTG1	Expand on development of 4.5 metric ton goal with regard to the expected exogenous advances in building and transportation efficiency. Is it aggressive enough?	<ul style="list-style-type: none"> <li>• <i>The 4.5 mt goal was proposed by the TWG as an interpretation of the Task Force guidance to create a “breakthrough plan”. It is a challenging goal viewed from today’s reality, and achieving it will take much effort, coordination and cooperation across all sectors.</i></li> <li>• <i>Business as usual may only reduce per capita emissions to 11.5 mt.</i></li> <li>• <i>Roughly two thirds of buildings that exist today will still be here in 2050. This necessitates a focus on retrofitting, further challenging the speed at which reductions can be achieved.</i></li> <li>• <i>That being said, when viewed against the Cool Counties targets and the IPCC recommendations it still falls short of the necessary 2.7mt/capita (80% below 2005).</i></li> <li>• <i>The CEP recommendations could be adjusted to meet a 2 to 3 mt/capita target without a fundamental change of direction. This is a decision for the Task Force to issue guidance.</i></li> </ul>

MTG2	Can a small description of GHG inventory methodology be added – especially when addressing “head-wind” transportation issues in County?	<ul style="list-style-type: none"> <li>• <i>For clarity, the methodology used to establish the GHG baseline will be included in the CEP Final Report, though this is already available in the public domain from the SAIC report (2010).</i></li> </ul>
MTG3	Involvement of Business Community in development of implementation plan	<ul style="list-style-type: none"> <li>• <i>The positive engagement of all areas of Arlington’s community has been impressive, including the level and participation of the business community.</i></li> <li>• <i>The TWG has taken the business community concerns into consideration in developing the CEP to date, and will continue to do so in the ongoing development of the Implementation Plan.</i></li> <li>• <i>The goals of the CEP are balanced between economic, supply security and quality and environmental, with no specific dimension dominating one over another.</i></li> </ul>
MTG4	What are the underlying bases for the assumption of the CEP “creating high quality jobs”?	<ul style="list-style-type: none"> <li>• <i>There are multiple bases for the assumption that successful implementation of the CEP will create high quality jobs for Arlington County:</i> <ul style="list-style-type: none"> <li>○ <i>Renovation of large amounts of existing homes and buildings will create multiple managerial and craft positions.</i></li> <li>○ <i>Operating all buildings for continuous improvement will create enhanced facility management positions.</i></li> <li>○ <i>Adding infrastructure to create DE-ready buildings, DE networks and distributed generation systems will require qualified personnel to manage, market, plan, construct and operate.</i></li> <li>○ <i>New business models will require new planning and financial management skills.</i></li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>○ <i>Arlington’s commitment to a holistic energy plan will attract investors aiming to expand their sustainability business in the USA and Canada by both reputation and by being “customer of first resort”.</i></li> <li>○ <i>Improved supply reliability and low-carbon energy supplies will be attractive to a significant number of potential investors irrespective of their core business.</i></li> <li>○ <i>Additional resources and jobs will be in demand because of other plan goals such as education, energy performance verification labeling, urban planning etc.</i></li> <li>● <i>All of the above positions have “export” potential beyond Arlington.</i></li> </ul>
MTG5	Does the emphasis on Civic Associations as a “powerful base” for the CEP exclude the business community from the decision making process?	<ul style="list-style-type: none"> <li>● <i>Arlington has engaged neighborhood organizations including business improvement districts, civic associations, neighborhood partnerships and area specific groupings.</i></li> <li>● <i>These are generally well balanced between civic and business interests, in the same way the CEP serves both the business and community aspects of Arlington and its long-term livability and sustainability.</i></li> <li>● <i>All sectors of the community must be adequately represented in developing the Implementation Plan for it to have a high probability of success.</i></li> </ul>
MTG6	Expand on Efficient Buildings (new and renovated) targets of improved efficiency (30-50%). Will the market bear the costs of efficient buildings? What are the cost/benefits? Incentives need to be addressed.	<ul style="list-style-type: none"> <li>● <i>Approximately half of the targeted savings will be achieved as a result of end-user operating improvements and sustainable procurement practices. The other half will come from efficient construction methods and overall construction quality control.</i></li> </ul>

		<ul style="list-style-type: none"> <li>• <i>Integrating both more efficient construction and operations to the levels targeted in the CEP will normally have relatively minor initial first costs, and have energy performance standards increasingly demanded by strategic tenants such as GSA and major corporations.</i></li> <li>• <i>Energy Performance Labeling further reassures the purchaser or tenant of the true energy operating cost benefits and becomes a competitive differentiator.</i></li> <li>• <i>In areas that are targeted for DE, the changed business model between energy service provider and property owner may reduce the initial first cost for new construction and renovation for the building owner, even at substantially higher levels of efficiency</i></li> <li>• <i>The CEP Final Report will address examples of building improvements.</i></li> </ul>
MTG7	More information needed on the anticipated legal framework for DE and DE Utility. There also is a need to address DE applications and the issues of density. There is also a need to compare global DE best practices in terms of institutional structure (i.e. Copenhagen).	<ul style="list-style-type: none"> <li>• <i>See above comments regarding DE.</i></li> </ul>
MTG8	Transportation demand management elements are a matter of concern in the business community with respect to how they may impact tenants, leases, etc.	<ul style="list-style-type: none"> <li>• <i>Arlington's successful multi-modal strategy implemented over the past decades is a key factor in the current success of the County.</i></li> <li>• <i>Transportation is the one area where there can be tensions between the three goals of economic development, community livability and environment. Arlington has successfully demonstrated its ability to manage this challenge to date.</i></li> <li>• <i>The current recommendations of the CEP strike a pragmatic balance between these goals. However, to</i></li> </ul>

		<p><i>meet the Cool Counties challenge, the balance between mass transit and other alternatives including more pedestrian commuting and the use of individual vehicles may need to be adjusted.</i></p> <ul style="list-style-type: none"> <li>• <i>Task Force guidance on this would be welcomed.</i></li> <li>• <i>County Staff would coordinate on all matters regarding recommendation for implementation of the built environment and transportation following acceptance of the CEP.</i></li> <li>• <i>See additional comments above on transportation.</i></li> </ul>
MTG9	Incentives (tax and density specifically) need to be an equal priority with initial implementation.	<ul style="list-style-type: none"> <li>• <i>Discussions about incentives and implementation will happen simultaneously, with the assumption they will launched coherently.</i></li> </ul>
MTG10	A goal of 4.5 metric ton goal in 40 years needs intermediate goals along the path. How will the technical resources be in place once the CEP is done?	<ul style="list-style-type: none"> <li>• <i>The CEP will include intermediate goals for 2016, 2025 and 2050 for all major sectors.</i></li> <li>• <i>The County Energy Team under the direct accountability of the County Manager will report progress on a regular basis.</i></li> </ul>
MTG11	While a GHG metric may be an appropriate measure to use as a goal. Are there other metrics, such as fuel efficiency?	<ul style="list-style-type: none"> <li>• <i>As long as a large majority of fuel used by the County is fossil (natural gas, coal, oil) directly or indirectly, GHG is actually a pretty good measure of fuel efficiency irrespective of its connotation in the climate change debate.</i></li> <li>• <i>The TWG will propose at least one other headline measure of primary fuel efficiency that would also reflect a growing use of renewable inputs.</i></li> </ul>
MTG12	Affordable housing needs to be incorporated in to the planning. Older properties tend to be affordable on rents. The goals are mutually compatible.	<ul style="list-style-type: none"> <li>• <i>After rent or mortgage, utility costs are the second most important factor is housing affordability. This is likely to become even more prevalent in the future.</i></li> </ul>

		<ul style="list-style-type: none"> <li>• <i>Successful implementation of the CEP will be a significant factor in ensuring there is sufficient affordable housing in Arlington County.</i></li> <li>• <i>A narrative will be included in the CEP Final Report on the impacts of energy on affordable housing.</i></li> </ul>
MTG13	Is there a possibility of a “rebatable” grant or some form of public/private partnership to protect against downside risk?	<ul style="list-style-type: none"> <li>• <i>This is a multi-dimensional question that can truly only be addressed relative to a specific development or project.</i></li> <li>• <i>In terms of building performance, the EPL provides the informational basis for a guarantee to build into leasing, financing or mortgages, such that if the building falls short, there is some form of rectification possible. Although this is not an explicit recommendation of the CEP, it would clearly support the first step of data transparency.</i></li> <li>• <i>In terms of DE energy services, the institutional framework needs to be set up that will ensure lifetime high quality heating and cooling services, an explicit recommendation of the CEP.</i></li> <li>• <i>Realistically, some aspects have to be seen as normal market risk, based on an underlying trend to a higher level of awareness of the value of energy efficiency and possible risks from energy costs, environmental legislation or stakeholders’ expectations.</i></li> </ul>
MTG14	How can Arlington’s efforts serve as a platform for a broader CEP regional initiative in Northern Virginia?	<ul style="list-style-type: none"> <li>• <i>See comments above on regional initiatives and partnering.</i></li> </ul>
DA	In general, I think the draft plan is a very good document. My only question is how the TWG reached the 4.5 metric ton goal for per capita emissions. From the relevant chart, it appears that Arlington could make at least 4 mt per person. Given the extent to which Arlington will benefit from exogenous advances in building and transportation efficiency, wouldn't we	<ul style="list-style-type: none"> <li>• <i>See reply to MTG1 above.</i></li> </ul>

	be able to get a good deal of the way to 4.5 while sleepwalking? I want to make sure that our goal is aggressive enough to be meaningful.	
PK1	[There's a need for] The continued involvement of the business community in the development of an implementation plan, including the development of procedures and policies for development related filings with County government. As you know, there are significant concerns about the existing processes and those concerns color expectations and concerns about procedures and policies related to the energy plan.	<ul style="list-style-type: none"> <li>• See reply to MTG3 above.</li> </ul>
PK2	What is the basis for the statements in the creating efficient buildings section that starting in 2015, renovated and new construction needs to hit targets of improved efficiency (30%, 50%)? What is the assessment as to the likely costs of those increases in efficiencies and whether the marketplace will bear those cost increases? If the market will not bear the increased costs, builders, both residential and commercial, either will have product they cannot move, or they will have to bear the costs alone.	<ul style="list-style-type: none"> <li>• See reply to MTG6 above.</li> </ul>
PK3	In the creating efficient neighborhood sections, the draft plan emphasizes the use of Civic Associations "as a powerful base for the CEP." As many of the neighborhoods expected to be included in the Integrated Energy Master Plans are "mixed-use", including both commercial and residential uses, the emphasis on the Civic Associations tends to exclude the business community from the decision-making process. Thus, we need to develop a plan through which the business and commercial property interests are represented appropriately and adequately. It is for easy for the individual residents comprising the various Civic Associations (as it is with County staff and elected officials) to require a lot and state that the business or commercial uses should pay.	<ul style="list-style-type: none"> <li>• See reply to MTG5 above.</li> </ul>
PK4	We need more information now on the anticipated legal framework for District Energy and the District Energy Utility. This is a critical component of the energy plan and I expect that the affected business interests are not willing to take a leap of faith that the legal framework will be compatible	<ul style="list-style-type: none"> <li>• See reply to MTG7 above.</li> </ul>

	with business and market realities.	
PK5	In the cross cutting initiatives section, the tax and density and other incentives proposal is important. But this needs to be given a higher priority and implemented in conjunction with the initial implementation plan, and creation of new requirements for development and development plans. From the perspective of the business community, it is not tenable to have all of the requirements implemented initially with the incentives aspect held for future consideration.	<ul style="list-style-type: none"> <li>• <i>See reply to MTG9 above.</i></li> </ul>
PK6	Also in the cross cutting initiative section, we note that there is not widespread agreement in the business community on a significant number of the transportation demand management elements, particularly where they impact on issues such as terms of leases with tenants, time and number restrictions on the ability of tenants to utilize in building parking, and similar matters. There has been extensive discussion on Transportation Demand policies as part of the overall master plan. This opposition and level of concern should not be overlooked.	<ul style="list-style-type: none"> <li>• <i>See reply to MTG8 above.</i></li> </ul>
PK7	The “creating high quality jobs” section sounds good. But what is the underlying basis for these assertions?	<ul style="list-style-type: none"> <li>• <i>See the reply to MTG4 above.</i></li> </ul>

NJ = Nina Janopaul                      SB = Scott Brideau  
 LF = Larry Finch                         NB = Nat Bottigheimer  
 CM = Colleen Morgan                 BC = Brian Coulter  
 TT = Tim Torma                         MA = Melissa Adams  
 BP = Bradley Provancha             DA = Dean Amel  
 CS = County Staff comments        PK = Phil Keating  
 MTG = Comments generated from 9/17/2010 Meetings