Climate, Energy and Environment Policy Committee 2013-2016 DRAFT Action Plan

Summary of Stakeholder Comments

Due by December 14, 2012

RESPONSES SUBMITTED BY EMAIL:

James L. Hearn, WSSC Water

WSSC has reviewed the voluntary, aspirational goals in COGs *Climate Energy and Environment Policy Committee (CEEPC)* 2013-2016 workplan and supports the goals identified by CEEPC.

Jason Papacosma, Watershed Programs Manager, Arlington County Dept. of Environmental Services

Thanks for the opportunity to comment. A few comments/suggestions below for the Green Infrastructure section. I would also note that items 47-50 have a water-related aspect as well.

Green Infrastructure

46. 75% of jurisdictions begin implementation of implement a plan to preserve and enhance ecologically valuable green spaces (such as forests, wetlands, stream buffers) in urban, suburban and rural areas, such as a green infrastructure plan, natural resource management plan, or green space plan.

- 47. 100% of jurisdictions in the region are a Tree City USA.
- 48. 50% of jurisdictions adopt shade tree policies for existing public parking lots and/or new public or private parking lots (e.g., 50% shade coverage of parking stalls within 15 years). [Note: more urban areas like Arlington don't build many new parking lots; also, a potential issue here is existing private lots and lack of authority to establish shade tree policy; so, need to consider whether this goal is for existing lots vs new ones]
- 49. 75% 50% of jurisdictions have a green roof located on government property. [Note: 1 green roof on a gov't building in each jurisdiction by 2016 should be doable across the board; 75% to be conservative]
- 50. 50% 35% of jurisdictions adopt a tree canopy/forest cover goal.
- 51. 50% Jurisdictions adopt a green streets policy.

Potential new one: Do we want to add something about development controls? Something like:

75% of jurisdictions require runoff reduction practices (or call them LID practices) for new development and redevelopment projects.

Dann Sklarew, George Mason University

Thanks so much for this information! From my initial skim, there's some interesting features in this data:

(a) Frederick County's huge drops in electricity (2005 to 2009) and natural gas (2010 to 2011) are difficult to comprehend in isolation. Any idea what happened there?

(b) Fairfax Co. electricity nearly matches what we found for the County's own inventory (within 1%), but Natural Gas was very different (>10% variance).

2010 kWh: 13,004,574,411 (yours) vs. 13,088,332,598 (ours - Dominion+NOVEC)

2011 kWh: 13,619,448,948 vs. 13,668,260,074

2010 therms: 248,562,848 (yours) vs. 289,174,885 (ours - WashGas only [w/o ~190,000 est.

from Columbia Gas])

2011therms: 262,259,706 vs. 292,502,904

Effort may be needed to determine which NG data set is under-/over-reporting. (Our contract with the County is done, but they have copy of the data we used.)

(c) The curve of trends imply that total energy consumption has been declining, driven by NG, not electricity. This did not make sense to me. So, I converted kWh2therms (at 0.03412142 therms/kWh) to find electricity in therms (not MMBTU) at around 2 Billion therms/yr:

1,964,422,155 1,935,444,166 2,023,365,450 2,084,313,449

This is larger than the ~1.5 Billion therms/yr you reported for NG. Thus, my version of the trend reads:

	2005	2009	2010	2011
Percent of 2006 energy use	100.0%	95.5%	99.3%	100.9%

Total stationary energy use in therms 3,545,897,656 3,387,715,517 3,520,696,438 3,578,967,570

Where consistently rising electricity use since 2009 swamps the nearly flat NG usage during this time. Net result: Our increasing energy use is predominantly an increasing electricity use issue over the past few years.

(d) Using therm2CO2e conversion factor (0.0053060136) and considering the corresponding kWh2CO2e conversion factor to vary with the electricity's blend of energy each year (here derived from egrID, for SRVC/SERC NC+VA service area) - declining from 0.000533942 until 2009 to 0.000510197 in 2011 (i.e., about 01%/year):

Total stationary GHGs appear to have declined to 96% of 2005 levels in 2009, then risen to 99% of 2005 in 2010 and 102% of 2005 in 2011. In short, in units of CO2e, we appear to be even further from our 2012 goal of staying at 2005 levels than we are using energy alone.

Assuming my analysis above is accurate: In order to achieve our 2012 (and near future) emissions target(s), the entire work plan should be reviewed with aim to prioritize and expedite decline in emissions from electricity generation (kWh2CO2e, likely due to blends of less CO2-emitting energy sources, per eGRID) while pushing for "game changingly" massive advances in electricity conservation and efficiency (e.g., "house-wide LEDs under every Xmas

tree, anyone?" ... new "green financing" for insulation retrofits, etc.). On the stationary side, everything else is secondary.

- (e) Fairfax Co.'s community GHG inventory for 2006-2010 shows that, even when GHGs per capita were relatively stable, population growth corresponded to increasing GHG emissions. If our work plan does not address the externalities of continuous population growth, we may not meet our GHG targets. This should be another consideration for refining the work plan.
- (f) Per capita GHG appears to be much larger in Arlington than Fairfax, likely reflecting a phenomenon I've informally documented across zipcodes in the Reston community of Fairfax Co. I.e., in areas where commercial square footage per resident is higher, energy and GHG emissions per capita will also be higher. This suggests that new urban areas which emulate Arlington's Ballston-Rosslyn corridor (e.g., Tysons and maybe East Falls Curch) will be extremely challenged to keep emissions per capita (or per sq mi) lower than prior land uses. Without focusing on very low energy intensive development in these new zones (cf. Arlington's district energy plans), broader efforts to reduce energy use or GHG are unlikely to be effective. Thus, the workplan should also be refined to prioritize and focus efforts on pursuing (though not necessarily promptly achieving) "net zero" emissions in rapidly urbanizing areas if our targets are to be met hereafter. Other areas are not trivial, but these urban areas offer greatest opportunity for "bang for the buck" relative to BAU, suburban retrofits, etc.
- (g) The analysis above does not incorporate another side study I did of mobile GHG sources for Ffx Co. There, it's clear that roughly half of mobile GHGs come from sources outside the jurisdiction, predominantly due to passenger vehicles. It seems we need to make it easier for people to work at/near where they live &/or provide much more wholistic and geospatialy-targeted transportation demand management (TDM) options in coming years to overcome that challenge.

I hope this is deemed useful and constructive, as I intended. Feel free to let me know here if I should elaborate upon or clarify anything.

Steve Walz, Northern Virginia Regional Commission

The CEEPC work plan sets some good and pretty aggressive goals – with a couple that look low. I did miss the working sessions where these were developed so don't have the benefit of those conversations – so COG staff may have different feelings based on that input. Given that, a couple of points for your consideration include:

- Measure 6 has no percentage of local jurisdictions to do audits.
- Measure 9 for 50% of jurisdictions to participate in the Better Buildings
 Challenge is one that looks to me to be pretty aggressive but a good one.
- Measure 11 looks weak with needing only 3 jurisdictions. Today, Arlington and Fairfax are now doing this. National Capital Planning Commission is including this in its plan for the area around the DOE and HUD buildings in DC. I think Loudoun will pick this up for its government support center complex. You might want to consider a larger number leaving the final number to discussion of the CEEPC, although I think six is probably a good number.

- Measure 12 on commercial building benchmarking is also low at w jurisdictions.
 DC is requiring this. Arlington is encouraging it. Alexandria is moving towards encouraging this. I also would not restrict this to the USBC's Building Performance Partnership. DOE is working on a commercial building asset benchmarking standard which should be out during the term of this plan. You may want to reword this as a such as the USBC partnership.
- On measure 45, I know there was discussion if energy assurance fits in to a climate plan. I think that energy assurance is tied sufficiently to energy efficiency, district energy and renewable power systems that reduce ghg emissions to be included in this plan.
- Measure 65 for employee education seems low at 35% if we are asking 50% to implement green business challenges or challenge programs aimed at the community.

Jonathan Way, Manassas City Council member and COG-CEEPC member

The COG Climate Energy and Environmental Policy Committee has published an "Action Steps" program of 65 goals you hope to see accomplished before year-end 2016. Of the 65 goals, 21 are "expected to be achieved" by all jurisdictions. CEEPC has requested comments from each jurisdiction on the proposal. Ours follow:

General Comments

- 1. The list of goals is very lengthy and will require a substantial work effort by jurisdiction staff. We cannot commit to achieving the full list CEEPC has provided, but will endeavor to selectively achieve those which bring the greatest benefit to the city and the region.
- 2. Each jurisdiction must be free to make its own plans and take its own actions, while keeping broader regional objectives in mind. We believe this is consistent with COG's position.
- 3. COG can recommend what is needed in the overall region to reach its overall goals, but must recognize the substantial differences among jurisdictions, particularly for those 21 goals for which COG is seeking to have 100% participation. Also, it would be helpful if COG were to provide a paragraph or two explanation of each of the 65 goals so that jurisdictions can better evaluate the nature and extent of their participation.
- 4. Manassas' endorsement of COG goals through the 2050 Compact remains conditional on the City Council finding each action will have a positive impact on the city and the region, is demonstrably cost-effective without local subsidization, protects the competitive position of our citizens and businesses with other areas with which we must compete, and can be accomplished within existing staff levels.

Specific Objectives:

1. Adopt a green building policy (#17) – This is a feasible proposal provided there is substantial flexibility in the definition of such a policy and we do not adopt a "one size fits all" regional standard for what is a green building. Economic realities must be recognized. Some of the more extreme green objectives, such as planting grass on top of buildings or catching and recycling rainwater, are not suitable in Manassas

- 2. Have a commuter options program for residents and businesses covering teleworking, car pools, van pools, ride home programs (#30) recognizing the small size of Manassas and the commuting patterns of our residents, we feel such programs are best left to regional organizations. We do not oppose such programs if they meet the economic tests in comment #4 above, but do not see a role for the city in subsidizing or organizing such alternative work ideas.
- 3. Become an EPA green power partner (#25) Manassas purchases all its electricity, both government and consumer use, from Dominion Power. To the extent Dominion purchases green power, we participate in that share. We do not plan to purchase incremental green power from Dominion at higher prices except as may be requested by individual citizens who are willing to pay the Dominion price premium associated with such electricity. We recently initiated such a consumer option, but met with very little success.
- 4. Have and demonstrate enforcement of truck/bus idling regulations (#28) Virginia code already specifies large vehicle idling regulations (5 min diesel; 3 min gasoline). While we can publicize the requirement, police enforcement would require supplemental manpower which we are unable to provide due to higher priority demands.
- 5. Assess community vulnerability to climate change (#42) This is a regional/national/worldwide issue and the subject is highly controversial and still being debated. We don't see a role for our small city in this long standing debate and we would prefer to review the results of larger jurisdictions, regional, and Virginia state evaluations in order to determine our vulnerabilities.
- 6. Develop strategies to adapt to the impacts of climate change (#43) We do not expect to adopt local GHG mitigation strategies by 2016 as called for in the CEEPC proposal. Getting too far ahead of the rest of the nation on a controversial and costly program could create a competitive disadvantage for our city and/or the region as a whole, potentially causing otherwise attractive businesses and industries to go elsewhere.

We hope these comments are constructive and will contribute to a program which is well balanced between social desires and economic realities. I'm sure we will have ample opportunity to discuss plans and progress in CEEPC in the future.

RESPONSES SUBMITTED VIA SURVEY MONKEY:

Are the large categories and associated overarching goals the appropriate ones?

#	Commenter	Specify Recommended Revision
		Sustainability and Resiliency Section: Suggest incorporating the word Adaptation in this
		category.
2	Larisa Dobriansky, Global Energy	Just a comment: I think that the addition of the "Sustainability and Resiliency" section is very much needed. This section builds upon the last Action Plan's performance measures
	Network	have been organized according to sector (energy efficiency, renewable energy, etc.) and begins to promote integrated energy systems strategies that cross-cut sector, technology and facility specific strategies and that can yield more holistic plans to address climate adaptation and mitigation, energy assurance and resilency and the greening of infrastructure. This addition will spur more efforts to use "energy" as a means for better understand how different sectors interact with one another (power, water, wastewater, waste, transport, telecommunications, buildings) in order to accelerate and amplify
		energy improvements and environmental quality.
3	Cameron Duncan, RA M-NCPPC	Water Management: 1. Building Strategies for Climate Change: As climate change impacts affect our region, such will become increasingly needed. "Sustainability" is a nice concept; effects being measured illustrate that approach is effectively too little too late and without both economic backing within the US nor global coordination for success. We must now prepare mitigation strategies for forecasted effects before even that falls short. 2. Groundwater Protection: Future reliance on natural gas derived from fracking and shale oil, heavily reliant on water reserves, will compromise our existing supplies. Water reserves are not adequately protected—they need to be. While each of these issues requires dialog, I believe something such as the proposed Action Plan needs rather immediate implementation. This should follow on its heels with implementation prior to 2015. Life Cycle: Our governments are rife with politicians issuing demands based on their in-office timelines. Projects become schedule-driven which increases first and long-term costs while diminishing longevity, durability, and overall quality. The private sector is worse.
		Life cycle analysis is necessary to protect us from forces professing instant gratification. As such has not been voluntarily forthcoming from many local jurisdictions, similarly to sustainability, would it not need a similar mandate? Please consider working in a requirement for life cycle analysis (perhaps min. 30-yr projected savings point for starters) that may be strengthened over time.
4	Ellen Eggerton DPWES-LDS-CTSC	Regional Greenhouse Gas Reduction Goal: Fairfax County's GHG reduction base year is 2006 not 2005 so could we add or other other adopted base year? This comment also applies for the built environment. Otherwise we cannot say we could achive 100% with the current wording. Other than this issue the goals are appropriate.
5	Lisa Orr, Frederick County	Outreach Goal: To improve public understanding of climate change and promote positive change in individual and institutional behaviors to reduce energy use and greenhouse gas emissions. DO YOU WANT TO INCLUDE ANYTHING ABOUT RENEWABLE ENERGY IN THE GOAL? Such as "to reduce energy use and greenhouse gas emissions and increase use of clean renewable energy"

Are there any items in the proposed 2013-2016 Action Plan that merit revision? (please identify the number of the item you are referring to)

#	Commenter	Specify Recommended Revision
1	Melissa Adams,	Energy Efficiency, Item 11 after the word "sytems" insert including 100kw to 2 MW
	Washington Gas	distributed generation projects.
		Item 15 - after "retrofits" insert - and deployment of distributed generation.
		Item 19 - after "ENERGY STAR" - insert - Portfolio Manager.
		Item 45 - after "grid" - insert - and natural gas pipeline
		Item 61 - after "smart" - insert energy
		Item 62 - after "rated" - insert - or provide at least a 25% reduction in source energy use
		(Btu) or GHG emissions
		Item 65 - after "home" - insert - including basic energy literacy outreach
2	Garrick Augustus,	New, 14: 5% of Govt. parking lot lights to be of solar powered type, with the goal of
	Fairfax County	moving to 100% by 2020
		New, 15. 2% of Govt. buildings to use load shedding during summer months, by installing
		Thermal Storage systems, to augment AC cooling. This should be done on largest accounts
		with highest AC needs on a Pareto basis.
		New, 46. Buildings which have backup generators, should convert (where possible) from
		diesel to dual diesel, LNG to further take advantage of load shedding opportunities during
		peak demand rates.
		New, 66: 100% of jurisdiction to implement Total Engagement in energy education, in an
		effort to cause employees to become self-policing in their cooperation to achieving
		sustainability through energy reduction and education.
		Note: "New" does not mean replacement to the existing number, but an addition thereto,
		such that the "new 15, for example, will simply be inserted, while the existing 15 will
		become 16, etc.
3	Dyan Backe City of	The City is concerned about the capacity to meet the benchmarking criteria for
	Gaithersburg	jurisdictions on the Implementation Measures for several of the categories. The City
		applauds the goals put forth in this work plan, but feels it may be too ambitious for some
		jurisdictions as priorities are balanced in relation to limited funds.
		For certain items, the issues include unexplored policy decisions (2,3,5,7,25,28,29,30),
		personnel staffing requirements (2,5,7,28,29,30), fiscal budgetary impacts
		(2,3,5,7,25,28,29,30), or a lack of technical expertise and data (5,7).
		42 and 43 – how many jurisdictions are expected to comply and what is meant by these
		precisely?
		These items would not be applicable to the City: 39, 40, 41, 55, and 57
		Note: smaller jurisdictions may not have the capacity to implement the Outreach
		measures as proposed on their own (Items 60-65).

#	Commenter	Specify Recommended Revision
4	Alan Brewer, Energy	The goals should be reviewed for opportunities to reduce duplication of efforts by
	and Environmental	jurisdictions. Where beneficial, goals should include the creation or use of model
	Program and Policy	ordinances, regional plans, regional studies, and best practices to promote efficiencies,
	Administrator	conserve resources, and prevent duplication of effort. Goals 13, 42, 43, 44, 45, 63, and 64
	Loudoun County	appear to have the potential for regional cooperation.
	Government	
		Prior to adopting the goals, there should be an assessment of the current conditions
		related to each goal. It is important to know the current conditions in order to determine
		if the goal is reasonable and attainable. For example, is it appropriate to set a goal to have
		50% of jurisdictions have a green roof located on government property (Goal #49), if 75% of
		jurisdictions are already meeting this condition?
5	Austina Casey, DDOT	Item 29 and 30, seems to be the same. I see that one says "offer", the other says "have"
		but don't see other difference.
6	Cameron Duncan, RA	is an unseen, "carrot and stick" component to instill excitement and/or pain, as needed to
	M-NCPPC	give these measures "teeth" as well as to elicit inclusion over exclusion.
		9 - 75%
		18, 19, 20 - 65%
		22, 45, - 75%
		4, 6, 21, 35, 36, 46, 48, 49, 50, 52, 60, 62 - 100%
		56 - Meet Scandinavian diversion rates (near 100%).
		58 - Establish policies to enable property owners to make 100% use of every organic
		element that lands on their site (e.g., leaves, rainwater, food waste). 59 uses weasel-
		words that beg loopholeplease, eliminate "support" and replace "sufficient" with
		"exemplary."
		Outreach (60-65): Jurisdictions need to heavily rebate sustainability initiatives,
		renewables, etc. to impart viability and momentum in a timely fashion. Such may be
		eagerly supported through new program initiatives with federal departments given the
		region organize a representative task force through which such may be broached.
		63 is weak; tie this into building permit applications to instantly elevate energy efficiency
		(EE).
		65 - Ha! The people are way ahead of the local governments (e.g., PG Co.). First mandate
		the government & provide something better than the extremely weak, piecemeal, pricing
		incentives for EE & RE (renewable energy). The people will avail themselves of such
		yielding a jump-start to proactive, regional advancement.
7	Ellen Eggerton	item 65. I would want to add to the outreach and education section to home owners for
	DPWES-LDS-CTSC	small scale projects for storm water management. Contact me if you want more details.
8	Beth Groth, Charles	For those items that require 100% of jurisdictions to comply, my only comment is that
	County Government	many of these items will potentially require budgetary action. We must balance our
		budget annually and have had to make major reductions the last 3 years to do this. The
		fiscal outlook is not getting much better, so this could be an issue for our jurisdiction and
		others as well.

Commenter Specify Recommended Revision 9 Noel Kaplan Fairfax There are several items of concern. These comments reflect input received from others on County Department county staff as noted: Item 5: The following has been reported by the County's Facilities Management of Planning and Zoning Department: The EPA Portfolio Manager is not a beneficial software for many jurisdictions, especially Fairfax County. There are many types of buildings (doctor offices, labs, fire stations, etc.,) that are not in the EPA's PM software (this comprises most of our building types) for scoring. Pursuing this initiative is only cost effective for the County if we intend to start getting Energy Star certifications for buildings. Given that Energy Star only has certain building types that are qualified for Energy Star certification (most of our buildings do not qualify) we would not engage in this process. Our existing Energy Cap system is a much, much better system for doing utility bill tracking and reporting and benchmarking. Energy Star Portfolio Manager is not very useful for this kind of analysis as it is intended mostly to apply for the Energy Star certification. This initiative would incur a considerable annual operating expense with no beneficial ROI for the County. In light of the FMD concerns, would it make sense to broaden the recommendation such that it would not preclude localities from tracking/reporting/benchmarking their facility energy Item 41: I've reviewed this item with others in the Department of Planning and Zoning. This item recommends that "jurisdictions implement transfer of development rights policies/programs." First, there should be some sort of statement of intent as to what the desired outcome of TDR implementation would be (this need not be a quantitative goal-broad, qualitative guidance as to outcomes [e.g., protection of environmentally-sensitive areas; concentration of growth in centers] could be provided). Second, there should be acceptance of the use by localities of other tools to acheive similar results. Some localities may evaluate TDR as a tool and decide that it doesn't fit their needs/circumstances but that other planning tools may be as effective in achieving similar ends. Item 48: The County's Urban Forest Management Division has reported the following: It may not be advisable to communicate a specific spatial/temporal recommendation for this goal (specifying a percent shade coverage of parking stalls within 15 years) until a specific level of practice can be quantified for the Mid-Atlantic area. Certainly trees can be used to cool parked vehicles and lower fuel evaporation rates, so from an ozone mitigation (and other environmental benefit) perspective this goal seems laudable. However, grounding this recommendation at the local level could be very challenging on many levels. 50% tree canopy coverage within a 15-year timeframe would require significant portions of parking lots to be devoted to tree planting space upfront; and if done correctly would require significant monetary investment in order to construct the soil volume capacity required to support needed canopy expansion rates and long-term tree health. Beyond those considerations, the minimal size/capacity of parking lots (numbers of parking spaces and supporting ingress/egress/accesses aisles) are typically driven by FAR and density of the parent use. The total surface area of devoted planting spaces required by a 50% in 15years metric could set up irreconcilable ordinance requirements, or act to enlarge the total area of parking lots at the price of surrounding open space that might otherwise already support existing tree canopy or other natural resources, or might otherwise be converted into landscape beds with greater capacity to support tree growth and health than those that can be provided in the parking lot environment. Item 50: The County's Urban Forest Management Division, in recognition of efforts of the Regional Tree Canopy Work Group, has advised that 35% seems to be quite a low target for

better aspiration?

jurisdictions adopting tree canopy/forest cover goals. What is the current percentage of localities in the region that have already done this? Would 50% (at a minimum) reflect a

#	Commenter	Specify Recommended Revision
10	Lisa Orr, Frederick	16. One community pilots a residential "Solarize" volume purchasing program (like Solarize
	County	Portland).
		This item is under Built Environment and Infrastructure/Energy Financing. I think it makes
		more sense for it to be under Renewable Energy.
		64. "50% of jurisdictions implement green business initiatives, challenges or certifications
		for businesses and employees in the region." I think you should add the word "initiative"
		as not all programs are necessarily challenges or certifications. A jurisdiction could have a
		Green Business Consultation or Mentoring type program, for example.
11	Laura Seidler Fairfax	Item number 5 (100% compliance) is not a beneficial software for many jurisdictions,
	County	especially Fairfax County. Please note: there are many types of buildings (doctor offices,
		labs, fire stations, etc.,) that are not in the EPA's PM software (this comprises most of our
		building types) for scoring. Pursuing this initiative is only cost effective for the County if
		we intend to start getting Energy Star certifications for buildings. Given that Energy Star
		only has certain building types that are qualified for Energy Star certification (most of our
		buildings do not qualify) we would not engage in this process. Our existing Energy Cap
		system is a much, much better system for doing utility bill tracking and reporting and
		benchmarking. Energy Star Portfolio Manager is not very useful for this kind of analysis as
		it is intended mostly to apply for the Energy Star certification. This initiative would incur a
		considerable annual operating expense with no beneficial ROI for the County.
12	Khoa Tran, City of	Should include an action to standardize methodology for GHG emission inventory,
	Alexandria	evaluate feasibility of having COG to carry out GHG emissions inventory for all jurisdictions
		and start reporting on per capita GHG emissions for the whole Washington Metropolitan
		region.
		2. Should have an action to establish intermediate GHG reduction goal (such as 2030 and/or
		2040).
		3. Should have an action that requires construction and demolition debris recycling for all
		jurisdictions.
		4. Should have an action aimed at promoting the use of alternative/ cleaner fuel and
		alternative transportation.
		5. In general, a number of goals need to be more aspiring and challenging if the region is to
		achieve 80% GHG reduction in 2050.
13	Khoa Tran, City of	Item #4 - 100% of jurisdictions adopt plans to reduce GHG emissions inventory community-
	Alexandria	wide.
		Item #12 -Should be changed to "recognized standard such as USGBC's"
		Item #19 - Should be changed to "requires and/or offer incentives for". Alexandria
		requires but does not offer any incentives.
		Items #13, 16, 18, 19 - The goal needs to be more aspirational and challenging.