

# **Response to 2018 EQAC Recommendation**

## **Recommendation: Climate and Energy #1**

(Page 138 of the 2018 Annual Report on the Environment)

### **EQAC Recommendation:**

EQAC recommends that Fairfax County develop a community-wide climate and energy action plan to reduce GHG emissions in the private sector, which is the source of 97 percent of the county's GHG emissions. Development of this plan should be based on a transparent and collaborative process and would be in accordance with the Board of Supervisors' endorsement of the Mayor's National Climate Action Agenda on June 6, 2017, the goals established by the 2017 Environmental Vision and regional (MWCOG) climate goals. In support of this work:

- ◆ EQAC recommends that the Board of Supervisors direct county staff to publish an annual Greenhouse Gas Inventory Report for county operations. Such action will assist the public in better understanding the trends in county energy use and the results of investments in energy efficiency and renewable energy measures. The annual report should cover years 2006 to the reporting year. The report prepared by the Fairfax County Public Schools provides a useful model.<sup>1</sup>
- ◆ EQAC recommends that the 2019 annual report on the Fairfax County Operational Energy Strategy should compare county progress to the board's goal in the Environmental Vision and the Cool Counties Declaration for a 20 percent reduction in GHG emissions from 2010 to 2020.

**LEAD AGENCY: Environmental Coordinator**

**COORDINATING AGENCY/IES: DCCS**

**Please identify a lead agency contact person:** Susan Hafeli/Jessica Lavender

**Has this recommendation already been addressed, or is it in the process of being addressed? If so, please provide details.**

This recommendation has not been addressed. See below for options on how to move forward to address this recommendation.

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<sup>1</sup> Fairfax County Public School, Greenhouse Gas Inventory Report for Calendar Year 2015, *available at* [www.fcps.edu/sites/default/files/media/pdf/calendar2015.pdf](http://www.fcps.edu/sites/default/files/media/pdf/calendar2015.pdf)

**If this recommendation has not been (or is not being) addressed, do you concur with the recommendation? Why or why not?**

Staff concurs in principle with the recommendation. Though structured as a single overarching recommendation with two subparts, EQAC's recommendation actually pertains to three separate issues. As such, each part is addressed separately in this staff response.

**1. Development of a community-wide climate and energy action plan**

Developing a staff response to this recommendation is complicated by several threshold issues.

- First, there currently is no shared understanding of or consensus as to what constitutes a community-wide energy and climate action plan (CECAP) or the methodology to be used to develop such a plan. Each community must determine for itself what it intends to achieve with its CECAP and how to best move forward.
- Second, **the county currently has no authority over private sector GHG emissions.** It can encourage but not require private sector action to reduce GHG emissions.
- Third, the county currently lacks an established organizational structure to support the recommendation. The County Executive's fiscal year 2020 (FY 2020) *Advertised Budget Plan* includes funding for a proposed Office of Environmental and Energy Coordination (OEEC). However, even if the OEEC is approved as shown in the FY 2020 *Advertised Budget Plan*, there are no additional resources (staff or budget) to undertake the CECAP.

This response assumes that the OEEC will be established consistent with the FY 2020 *Advertised Budget Plan*.

**A. Expansion of current outreach efforts to residents and businesses**

Staff anticipates that a newly-established OEEC will expand the county's energy education and outreach (E&O) to address community interest in reducing private sector GHG emissions. While this expanded E&O can help promote and encourage private sector GHG emissions reduction, it would not be considered a CECAP as described in EQAC's recommendation. **No additional staffing requirements would be associated with this E&O expansion, although there will be annual requests for funding to support it.**

The county's existing *Energy Action Fairfax* (EAF) program will be the backbone of the OEEC's expanded E&O. EAF is currently funded by the county's Environmental Improvement Program and supported by staff of the Department of Cable and Consumer Services (DCCS). Once transferred to and supported by an office with dedicated resources and staffing, EAF can expand its community energy E&O efforts to encompass GHG emissions reduction and environmental sustainability initiatives.

Particularly over the last several years, EAF has developed and implemented a number of initiatives to connect with county residents and businesses, as described below. Staff anticipates that the OEEC will build on these initiatives so that EAF can grow and reflect evolving community interests and needs, as well as opportunities.

- [Energy Action Fairfax's website](#) includes energy saving tips, information about home energy assessments, videos about saving energy, links to resources and descriptions of program offerings and special initiatives. Program offerings include community presentations and “Home Performance Get Togethers.”
- EAF's Green Business Partners Program, launched in April 2016, recognizes local businesses that are leaders in environmental stewardship. The program's [Green Business Partners Directory](#) provides a sustainability profile for each Partner highlighting its achievements.
- Since 2017, EAF has coordinated a [Solarize Fairfax County](#) campaign in collaboration with the Northern Virginia Regional Commission and the Local Energy Alliance Program. The campaign helps residents and businesses reduce the cost and complexity of installing solar panels by providing free onsite solar assessments, a bulk purchase discount, vetted contractors and community workshops and support. The 2019 campaign is slated to kick off April 16, 2019 and will include information sessions for interested residents and businesses on April 22 (Fairfax County Government Center), May 8 (South County Government Center), and May 30 (North County Government Center).
- In April 2017, Energy Action Fairfax started its first specialty initiative, the [Thermal Camera Loan Program](#). Through this program, county residents can reserve a thermal camera just like a book from any branch of the Fairfax County Public Library. Thermal cameras enable residents to inspect their homes or businesses for hot and cold spots, which often indicate energy saving opportunities.
- In early 2018, Energy Action Fairfax held a series of [LED Lightbulb Exchanges](#) attended by approximately 1,600 residents. In addition to providing educational material about LEDs and an interactive LED display, these events offered residents one free LED lightbulb and up to four more if they brought in incandescent lightbulbs or compact fluorescent lamps to exchange. EAF has scheduled and has begun promoting six 2019 events at county libraries between April 6 and May 18.

**B. Climate and energy action planning is an “add-on” that will require additional funding**

Staff assumes that the proposed OEEC would take the lead both in (1) identifying the purpose, goals and objectives of a CECAP for Board consideration and approval and (2) developing a collaborative community-oriented planning process. Staff anticipates that experienced consultants would be retained to assist in various aspects of one or both of these responsibilities. Consequently, **the development of a CECAP would require additional dedicated resources, with the level of additional staff and funding dependent on the plan's purpose, goals and objectives. In a community of Fairfax County's size, the cost of developing a CECAP could easily range from \$600,000 to \$1,400,000 for an effort with extensive community input.** Plan implementation/execution is a separate phase that would follow CECAP development, with resource requirements.

## Climate and Energy #1

Continued

The chart below summarizes staff's understanding of key aspects of CECAP initiatives in selected communities across the nation, listed in order of increasing complexity and cost. This overview is based on preliminary research. Staff expects to conduct additional research and to provide the Board with the results of that research at a later date.

*Chart 1, Energy and Climate Action Planning Overview – Development Phase*

Locality	Responsible Office	Additional Assistance	Developm't Timeframe	Community Engagement	Municipality Characteristics
Cleveland, OH	Office of Sustainability 8 staff	Yes: consulting services and additional staffing	~ 12 months	<ul style="list-style-type: none"> <li>• 90-member Advisory Committee (five meetings)</li> <li>• 12 public workshops with 300+ attendees</li> <li>• Public comment period</li> </ul>	<ul style="list-style-type: none"> <li>• 2017 population 385,525</li> <li>• MHI: \$27,854</li> <li>• Land area: 77 mi<sup>2</sup></li> </ul>
Boston, MA	Dep't of Energy 30 staff	Yes: consulting services and additional staffing	~ 12 months	<ul style="list-style-type: none"> <li>• 31-member Stakeholder Steering Committee</li> <li>• 5 20-member strategy subcommittees</li> <li>• 2 public forums with 500+ attendees</li> <li>• Public comment period</li> </ul>	<ul style="list-style-type: none"> <li>• 2017 population 685,094</li> <li>• MHI: \$63,621</li> <li>• Land area: 48.4 mi<sup>2</sup></li> </ul>
Wash., D.C.	Dep't of Energy & Environment, Energy Admin., Policy Compliance Division 16 staff	Yes: consulting services and additional staffing	36 months	<ul style="list-style-type: none"> <li>• 2-day stakeholder workshop</li> <li>• 6 peer review meetings with 39 organizations</li> <li>• 3 community forums with 100 attendees</li> <li>• 24 canvassing events</li> <li>• Resident survey (800 responses)</li> </ul>	<ul style="list-style-type: none"> <li>• 2017 population 702,455</li> <li>• MHI: \$82,372</li> <li>• Land area: 61.05 mi<sup>2</sup></li> </ul>
Arlington County, VA	Arlington Initiative to Reduce Emissions (AIRE) 12 staff	Yes: consulting services and additional staffing	~ 40 months	<ul style="list-style-type: none"> <li>• 30-member Stakeholder Group, with bimonthly meetings</li> <li>• ~ 100 public meetings</li> </ul>	<ul style="list-style-type: none"> <li>• 2017 population 234,965</li> <li>• MHI: \$117,237</li> <li>• Land area: 26.0 mi<sup>2</sup></li> </ul>
Fairfax County, VA	Anticipated	Anticipated	To be determined	To be determined	<ul style="list-style-type: none"> <li>• 2017 population 1,148,433</li> <li>• MHI: \$104,259</li> <li>• Land area: 391 mi<sup>2</sup></li> </ul>

MHI = Median household income

At this time, staff assumes that the OEEC would establish a Steering Committee composed of representatives of key county departments and agencies to oversee and guide the CECAP planning process.

**During the development phase, the OEEC, under the oversight of the Steering Committee, would be responsible for a range of tasks including:**

- Establishing a Community Advisory Team, consisting of representatives of selected community, business and other groups interested in participating in plan development and consulting with OEEC and/or the Steering Committee.
- Developing one or more statements of work (SOW) that address CECAP purpose, goals and objective, as well as plan targets, major deliverables and supporting tasks, and timelines and milestones.
- Identifying the responsibilities of different teams, participants and groups.
- Identifying areas in which consultants, technical advisors and/or professional facilitators would be required to provide expertise that is not available in-house, and then procuring services.
- Developing and implementing mechanisms for obtaining and analyzing data and other inputs, including data available from regional partners, like the Metropolitan Washington Council of Governments (MWCOG), the Northern Virginia Regional Commission (NVRC), and other jurisdictions in the region.
- Developing, screening, and selecting tactics and strategies for public consideration.
- Scheduling, advertising, facilitating and otherwise ensuring public involvement so that public comment accurately and appropriately reflects the community.
- Compiling, reviewing, and analyzing public comment and relevant data.
- Creating and disseminating materials for public consideration during each phase of plan development, from initial solicitation of public input through publication and posting of final written and graphic materials regarding the plan.
- Presenting draft and final products to the Board of Supervisors for consideration and adoption.

**The specific tasks and scope of each would depend on the purpose, goals and objectives of a CECAP.** As noted, plan implementation or execution is a separate phase that would follow CECAP development.

As shown in Chart 1, the effort associated with a CECAP can vary significantly. Staff research indicates that a CECAP conducted under the auspices of the OEEC with the involvement of consultants, technical advisors and professional facilitators **likely would cost in excess of \$600,000 and require the addition of two full-time employees (FTEs) in addition to anticipated FY 2020 resources.** Arlington County, which is included in Chart 1, provides a useful example, though the costs that Arlington County incurred for its Community Energy Plan CEP (~\$600K) and the scope of its engagement could easily be double or more for a jurisdiction of Fairfax County's size.

Arlington County adopted its Community Energy Plan (CEP) in 2013, following a four-year, two-phase process that involved the development of goals, policies, strategies and tools. Much of the work was undertaken internally through the county's "Fresh AIRE" program (initially established

as Arlington Initiative to Reduce Emissions and later renamed as “Arlington Initiative to Rethink Energy”). In FY 2012, Arlington County approved an additional \$583,690 in funding to supplement staff efforts in support of its CEP. Specifically, Arlington County (1) approved \$365,000 in one-time funding for consulting services; (2) added a two-year limited term FTE, at a cost of \$204,000 over the two years; and (3) approved operating expenses of \$14,690.<sup>2</sup> Arlington County is currently conducting a five-year review and update to its CEP.

Staff recommends that a CECAP be developed as a stand-alone document, not incorporated within the Comprehensive Plan as the documents serve different purposes. The Comprehensive Plan is a land use policy document that guides county land use decisions. The CECAP, meanwhile, likely will identify both policy and strategic/programmatic efforts that could be taken in support of the CECAP’s goals and objectives. As such, both the scope and direction of the CECAP would be broader than that of the county’s Comprehensive Plan. However, it may be appropriate to pursue a separate Comprehensive Plan amendment if it is determined that the CECAP should be referenced in the Comprehensive Plan and/or that the land use-related goals, objectives and policies in the Comprehensive Plan should be revised in support of CECAP goals.

## **2. Annual Greenhouse Gas Inventory Report for County Operations**

EQAC’s second recommendation, as set forth in the first bullet, is that the Board direct county staff to publish an annual Greenhouse Gas Inventory Report for county operations. Staff questions the need for annual emissions reporting of county government operations, because our experience has been that the small incremental changes year-over-year do not justify the time needed to undertake the inventory. Staff would be agreeable to conducting a limited emissions inventory every three to five years, however.

Currently, the Metropolitan Washington Council of Governments (COG) prepares a community-wide GHG inventory on a periodic basis for its member jurisdictions, including Fairfax County. COG’s involvement ensures use of a consistent methodology across the region. The COG inventory for Fairfax County measures emissions from sources including energy use (electricity consumption and combustion of natural gas and other fuels), mobile transportation and off-road activities, solid waste collection and treatment, water and wastewater pumping and treatment and agricultural and fugitive emissions.<sup>3</sup> While the COG inventory reports on emissions associated with the residential and commercial sectors, it does not separately account for emissions associated with county government operations.

Staff will consult with COG to determine whether COG’s next inventory for Fairfax County can separately account for emissions associated with county government operations. These emissions

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<sup>2</sup> Arlington County’s adopted FY 2012 budget also included \$2,169,000 to fund its Fresh AIRE program. See, e.g., <https://budget.arlingtonva.us/wp-content/uploads/sites/18/2013/10/FY-2012-Adopted-ALL-IN-ONE-BUDGET.pdf> at 24, 214 and 216.

<sup>3</sup> A summary factsheet about MWCOG’s most recent inventory for Fairfax County for the period 2005 - 2015 is posted on the county’s website at <https://www.fairfaxcounty.gov/environment/sites/environment/files/assets/documents/pdf/fairfax-county-greenhouse-gas-emissions-factsheet-may-2018.pdf>.

account for approximately 1.5 percent of community-wide emissions.<sup>4</sup> If COG is unable to separately account for emissions associated with county government operations, then staff proposes that it conduct a limited, or “**lite**,” version of a GHG inventory of county operations on the same time-table as the community-wide COG inventory. This inventory would supplement, not replace, the COG regional/jurisdictional inventory.

This periodic limited inventory of county government operations would supplement the energy and emissions data currently posted on the county’s website with emissions data related to transportation and mobile sources. This inventory would incorporate:

- **Emissions related to internal county energy consumption.** Data regarding the electricity and natural gas consumption of county government operations are currently posted on both the county’s [Energy Dashboard](#) (updated monthly) and its [Energy Data Webpages](#) (updated annually). These pages also provide estimated GHG equivalent emissions for electricity and natural gas use at the building and agency level.
- **Emissions related to internal transportation and mobile sources, with some exceptions.** The periodic inventory would include county fleet and vehicle use, calculated using emissions associated with fuel (gasoline and diesel) use, but exclude transportation and mobile emissions that are (1) reported elsewhere; (2) are *de minimis*; and/or (3) are currently non-quantifiable. Emissions reported elsewhere include school bus emissions, which are reported by FCPS in its inventories. Emissions that are either *de minimis* or currently non-quantifiable due to a lack of available data include fugitive emissions from refrigerant use that are released during equipment installation, use, servicing, or disposal.

This periodic inventory of county government operations would not address emissions related to the county’s water, wastewater and solid waste operations, as these emissions are separately accounted for and reported in the COG community-wide GHG emissions inventory.

### 3. 2019 Update on the Operational Energy Strategy

EQAC’s third recommendation, as set forth in the second bullet, is that the 2019 annual report on the [Fairfax County Operational Energy Strategy](#) (OES) should “compare county progress to the board’s goal in the Environmental Vision and the Cool Counties Declaration for a 20 percent reduction in GHG emissions from 2010 to 2020.” Annual reporting regarding OES implementation cannot be used for the purpose EQAC recommends because the OES is neither intended nor designed to address emissions reductions. However, staff can conduct a limited assessment of county operations, similar to what was shown in Table 4.1 of the OES. County progress regarding the 2020 emissions goal will be captured in COG’s next community-wide GHG inventory.

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<sup>4</sup> Together, county government and schools account for approximately three percent of total Fairfax County community GHG emissions. Fairfax County Public Schools (FCPS) conducts its own GHG inventories. See <https://www.fcps.edu/node/31156>.

### **A. County commitments**

In signing the [Cool Counties Climate Stabilization Declaration](#) on July 16, 2007, the Board of Supervisors committed to create a regional GHG emissions inventory and to limit geographical GHG emissions by 2050 through a regional planning process. As noted in the county's June 2017 [Environmental Vision](#), the county has teamed with its regional partners at COG to create an inventory of GHG emissions on a regional scale, to develop regional emissions reductions targets, and to develop a regional action plan. In 2010, the county and other COG members executed the [Region Forward Compact](#), which included the region's first official regional GHG emissions reductions targets. The Region Forward 2020 target is a reduction in regional GHG emissions of 20 percent below 2005 levels.

### **B. The OES is focused on internal energy reductions, not regional GHG emissions**

Both the 2007 Cool Counties Climate Stabilization Declaration and the Region Forward Vision contemplate an 80 percent reduction in regional GHG emissions by 2050. As the OES recognizes, reaching the region's 80 percent reduction target by 2050 will require "a sustained, multi-pronged effort to reduce fossil fuel use, thereby reducing the carbon dioxide (CO<sub>2</sub>) emissions recognized to drive global warming." OES at p.4. As part of that sustained effort, the Board-adopted OES includes goals, targets and actions to guide county personnel in reducing fossil fuel use in county government operations over time. The OES was not adopted to reduce regional GHG emissions. That the focus of the OES is internal energy reductions, not regional emissions reductions, is shown by the impact of the OES on regional emissions. As noted previously, county government operations account for about 1.5 percent of all GHG emissions in Fairfax County. According to OES Table 4.1, county government operations account for so little of the region's energy use and corresponding GHG emissions that meeting all OES targets would barely register in the region's emissions inventory. For example, meeting the OES energy use and efficiency target (reduce energy use 20 percent by 2029) would reduce regional GHG emissions by only 0.07 percent, as compared to a 2005 baseline; meeting the targets of three additional focus areas would only raise that number to 0.07202 percent. At less than one-tenth of one percent, there would be no identifiable progress to measure.

### **What, if any, actions should be taken pursuant to EQAC's recommendation?**

See discussion above.

### **Do the actions recommended above have any budget implications for FY 2020? If so, please explain.**

Actions related to either the development or implementation of a community-wide energy and climate action plan would have a budget impact but it's unlikely to impact the FY 2020 budget.

County staff has conducted a preliminary resource assessment and examined the resource requirements from similar medium to large jurisdictions in the region and around the country to see what resources were needed to develop and implement their community energy and climate action plans. While there was some variability regarding staff and budget resource requirements, on average, the consulting and



## **Climate and Energy #1 Continued**

community outreach cost to develop a plan ranged from \$200,000 to \$1.4 million. This cost included analysis of existing data; risk and vulnerability analyses; gap analysis based on global best practices; public outreach materials; extensive community engagement; and a final implementation plan. Dedicated full time staff resources ranged from one to two employees, depending on the size of the jurisdiction and scope of the plan. Staff estimates that a comprehensive county-wide CECAP would require two additional positions and an additional \$276,749 in General Fund support.

**Do the actions recommended above have any longer-range fiscal implications? If so, please explain.**

Depending on the direction given to staff by the Board of Supervisors, the recommended actions could result in future year expenditures but those are, as of yet, undetermined. If the Board directed the development of a community-wide climate and energy action plan, it would need to be implemented in a subsequent phase.