Responses of the Office of Environmental and Energy Coordination (OEEC) to Questions of the Energy Subcommittee of the Joint Environmental Task Force

- *How much will the solar RFP reduce county emissions?*
    - *Also, what is the timeline for the solar RFP? i.e. when will awards be given, solar installed, schedule for implementation, etc.*

  Emissions avoidance. The county's 2019 Request for Proposals (RFP) regarding solar power purchase agreement (PPA) services included a Master List of Facilities at which solar installations were then considered. That Master List was divided into two parts: Phase 1, encompassing 113 facilities, and Phase 2, encompassing 130 facilities. These 243 facilities are owned and operated by Fairfax County Government (FCG), Fairfax County Public Schools (FCPS), Fairfax County Park Authority and Fairfax County Housing and Redevelopment Authority (hereinafter the Fairfax County Entities).

  County staff has developed estimates of greenhouse gas (GHG) emissions avoidance associated with Phase 1. The installation of solar generating facilities at all 113 facilities listed in Phase 1 is estimated to generate 1,732,768,267 kilowatt hours (kWh) over the contract terms. According to the EPA's GHG-equivalency calculator, this solar electric generation will avoid the emission of 1,225,136 metric tons of carbon dioxide equivalent. This EPA GHG calculator is available at https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

  Timeline: On December 6, 2019, the county awarded contracts to three vendors pursuant to the solar PPA services RFP. The contracts are available on the county's Contract Register website at https://www.fairfaxcounty.gov/cregister/ and can be accessed by searching either for the awardees Sigora Solar LLC, Sun Tribe Solar LLC, or Ipsun Power, Inc. or for contract numbers 4400009515, 4400009516, or 4400009517. These contracts identify primary, secondary and tertiary awardees for rooftop-mounted and canopy/carport-mounted solar installations.

  Virginia law currently provides that customers in the service area of Dominion Energy Virginia (Dominion) must comply with a pilot program that limits PPA-financed solar installations to a total of 50 megawatts (MW) of capacity throughout Dominion's service area. This pilot program is administered by the Virginia State Corporation Commission (SCC). In early January, the SCC deemed the pilot program fully subscribed, effectively ending further PPA projects in Dominion's service area. As a result, FCG is unable to proceed with any on-site solar installations until legislative action in the 2020 General Assembly session that amends or eliminates the pilot program and/or the 50 MW cap.

- *Ask county to benchmark all utilities (electricity, gas, water, fossil fuels)*

  Fairfax County Government (FCG) is currently benchmarking electricity, natural gas and water utility use.

- *How many facilities have been benchmarked for energy?*

  Currently, FCG is benchmarking energy usage for 204 facilities operated and maintained by the Facilities Management Department (FMD) and for 164 facilities operated and maintained by the Fairfax County Park Authority (FCPA).

- *When will all buildings be benchmarked/when will this information be available for the public?*

  FCG has developed a public-facing dashboard with utility information available by facility. The dashboard is available at https://www.fairfaxcounty.gov/apps/energycap/.

FCG anticipates expanding its energy benchmarking in 2020, after a planned upgrade to its energy tracking software program, EnergyCap. This expanded benchmarking will include the energy usage of facilities operated and maintained by county departments and agencies other than FCG and FCPA, including the Department of Public Works and Environmental Services.

- *How many schools/government buildings are in the RFP?*

  A Master List of Facilities was included as Attachment C of the 2019 Solar PPA RFP. This Master List included 243 total facilities, with 113 listed under Phase 1 and 130 facilities listed under Phase 2.

- *We understand that we have to get to net-zero carbon; we have to --> there is no other option*
  - What is the county's plan/timeframe for net-zero carbon?

  Fairfax County is a member of the Metropolitan Washington Council of Governments (COG). COG has adopted a regional goal of reducing GHG emissions 80 percent below 2005 levels by 2050. Information about regional goals is available at https://www.mwcog.org/newsroom/2017/03/29/regional-plan-outlines-recommendations-to-reduce-greenhouse-gas-emissions/. Neither COG nor the county currently has either a net-zero carbon emissions goal or a plan or time-frame for achieving net-zero carbon (i.e., carbon neutrality).

  The county has instituted a process to develop a Community-wide Energy and Climate Action Plan (CECAP) that will set overall greenhouse gas (GHG) reduction targets, establish community-wide priorities and define a set of climate mitigation strategies and actions to achieve the county's mitigation goals. Carbon neutrality may be considered during the development of the CECAP. The CECAP process is expected to conclude in mid-2021. Information about the CECAP process and relevant materials are available at https://www.fairfaxcounty.gov/environment-energy-coordination/cecap.

- *Where is the county right now in carbon emissions?*
  - *Must know where we are before we can set goals/means to achieve goals*
  - *Prioritize benchmarking*

  COG has been conducting periodic GHG emissions inventories for Fairfax County and other COG member jurisdictions. COG's most recent GHG inventory for Fairfax County analyzes emissions for the period 2012- 2015. A Fact Sheet describing the results of this 2012 -2015 inventory is available at https://www.fairfaxcounty.gov/environment/sites/environment/files/assets/documents/pdf/fairfax-county-greenhouse-gas-emissions-factsheet-may-2018.pdf. As noted on the Fact Sheet, Fairfax County community-wide GHG emissions decreased by more than nine percent between 2005 and 2015, with per capita emissions decreasing 20 percent during this period. COG is updating the county's inventory as part of the CECAP process.

- *The county is using a state-of-the-art financing mechanism for the solar RFP (Power Purchase Agreement). Has the county considered similar unique financing systems for other aspects of energy efficiency?*

  The county is exploring different avenues for implementing energy efficiency improvements and achieving reductions in GHG emissions. For its own facilities, FCG anticipates use of a state energy performance contract negotiated by the Virginia Department of Mines, Minerals and Energy (DMME). Under this contract, one or more pre-qualified energy service companies (ESCOs) will implement energy conservation and/or operational energy efficiency measures to obtain guaranteed levels of energy savings. Information about this state contract is available at https://www.dmme.virginia.gov/DE/PerformanceContractingSupport.shtml. For the commercial sector,

Fairfax County is finalizing its Commercial Property Assessed Clean Energy and Resiliency Financing program, known as C-PACE. The county has selected the Virginia PACE Authority as its C-PACE administrator. The county is currently finalizing the C-PACE program guidelines and anticipates launching the program in February 2020. Virginia has not authorized localities to offer a comparable financing program for residential properties.

- *What has the county done for energy efficiency so far? (specifics on air tightness, insulation, energy audits, LED lights, etc.)*

  The county has undertaken energy efficiency initiatives pursuant to both internal department guidelines and the county's Operational Energy Strategy (OES). The OES, which was adopted by the Board in July 2018, is available at https://www.fairfaxcounty.gov/energy/sites/energy/files/assets/documents/fairfax-county-operational-energy-strategy.pdf.

  Section 4 of the *FY 2020 Fairfax County Sustainability Initiatives* highlights several of the energy efficiency and conservation initiatives undertaken by county departments including FMD, DPWES (including waste management and water re-use) and the Departments of Information Technology and Vehicle Services. Section 5 describes individual projects funded by the county's Environmental Improvement Program. As noted, several of the FY 2020 EIP projects promote energy efficiency, including a web-based irrigation control project and a community LED lightbulb exchange program. Appendix III of *Sustainability Initiatives* lists specific FY 2019 OES energy efficiency projects at county and FCPA facilities and provides annual electric savings and equivalent carbon emissions avoidance for each. *FY 2020 Fairfax County Sustainability Initiatives* is available at https://www.fairfaxcounty.gov/environment-energy-coordination/sites/environment-energy-coordination/files/assets/documents/pdf/fy%202020%20sustainability%20initiatives.pdf.

  In FY 2019, the county approved funding to implement OES projects, to install charging infrastructure for electric vehicles and to transition the county's streetlights to LED technology. See, e.g., https://www.fairfaxcounty.gov/publicaffairs/fairfax-county-proposes-25-million-new-energy-efficiency-projects-led-streetlights-and-electric. Staff anticipates that the FY 2021 version of *Fairfax County Sustainability Initiatives* will include information about these projects, including electricity savings and emissions avoidance associated with upgraded streetlighting.