

**Joint Environmental Task Force (JET)
Report of the Energy Subcommittee
September 2020**

Members of the Energy Subcommittee are Mount Vernon District Supervisor Dan Storck; Rich Aiken (Fairfax resident and climate expert), Smita Chandra Thomas (Fairfax resident and energy expert), and Wendy Gao (student). Others participating as presenters or advocates were Kambiz Agazi, Director of the Office of Environmental & Energy Coordination of Fairfax County, Justin Moss, Director of Facilities Management at Fairfax County Public Schools and John Lord, Coordinator III for Energy Management at Fairfax County Public Schools.

This report by the Energy Subcommittee of the JET summarizes the recommendations for a vision and goals for adoption by the Fairfax County Board of Supervisors and the Fairfax County School Board that are aspirational, achievable, and reflect the Boards' strong commitment to addressing the global climate crisis, placing it among the leaders in climate action and resilience planning nationwide. These recommendations are also aimed at reducing operational expenses for the County immediately and for the long-term. Any reference to "County" in this report means resources managed or owned by the Fairfax County Board of Supervisors, the Fairfax County Park Authority, the Fairfax County Regional Housing Authority, or the Fairfax County School Board unless otherwise stated.

To formulate the recommendations, the subcommittee met in person and virtually seven times between September 2019 and August 2020 at broader JET meetings that broke out into subcommittees and reported back to the JET. County staff presented the current state of the County energy use and emissions; following which the subcommittee and staff discussed appropriate goals for the future and a timeline to reduce energy use and related emissions and increase the use of clean renewable energy by the County.

The subcommittee took the approach of setting goals that were supported by sub-goals and strategies that the subcommittee believes are practically possible and achievable with sufficient political will, an innovative mindset towards financing options, and a continuation of the focus on results by County staff.

Recommendation #1:

As an overarching goal, the Fairfax County Board of Supervisors, the Fairfax County Park Authority, The Fairfax County Regional Housing Authority, and the Fairfax County School Board should commit to being energy carbon neutral by 2040.

Recommendation #2:

Subgoals must be adopted to achieve near-term impact and ensure the successful achievement of the 2040 energy carbon-neutral goal. The recommended subgoals are:

1. Carbon emissions: Achieve 50% emissions reductions by 2030, as compared to the 2019 baseline.
2. Clean renewable energy: Produce 25% of the County energy use from in-County renewable energy generation by 2030, and 50% by 2040, using 2019 energy use as the baseline.
3. Building Energy Performance Standards for existing buildings: Decrease total energy usage from all County facilities by 25% by 2030 and 50% by 2040, as compared to the 2019 baseline.
4. Net Zero Energy Commitment: All new County buildings and major renovation projects beginning planning and design in 2021 and after must achieve 'Net-Zero Energy' (NZE) performance as defined below, unless County staff advises the Board prior to the 30% design phase why a project cannot meet the NZE standard.

Net-Zero Energy (NZE) definition: A net-zero energy building is defined as one that is highly energy-efficient and produces onsite, or procures offsite as necessary, carbon-free renewable energy in an amount sufficient to offset the annual energy use associated with operations.

Recommended Initiatives to Achieve Goals:

1. Use of Energy Service Companies (ESCOs) and Energy Saving Performance Contracts (ESPCs) to renovate existing buildings on an accelerated schedule.
2. Assess feasibility of additional solar installations at sites like brownfields and parking lots.
3. As part of NZE projects, the project team should set the maximum energy use intensities (EUI in terms of kBtu/sf/year) for the facilities.

Recommended Coordination:

It is recommended that County staff among the respective organizations coordinate on the following:

- Develop baseline energy use and emissions data for the year 2019.
- Complete the inventory of all potential solar sites, potential for array size and order of magnitude energy potential for site.
- Identify potential sites for shared solar/geothermal installations.
- Undertake a strong awareness program about energy and emissions for the staff and general public.

Note: The subcommittee has additional information, if desired, about achieving net-zero energy performance and carbon-neutrality.

Fairfax County Energy Vision

Commitment to Carbon Neutral by 2040

