

Date: December 14, 2016

To: Chatham County Board of Commissioners

From: Climate Change Advisory Committee

Re: **Recommendations for sustainable facilities (revised for January BOC work session)**

This is a follow up from the presentation at the October 17 meeting.

The Climate Change Advisory Committee recommends the following:

1. That the BOC implement specific reduction targets regarding **energy use**, water use, transportation and waste for the county buildings included in the 2016-2017 budget as well as in the future with the goal of achieving carbon-neutrality in 2030 (using no fossil fuel GHG emitting energy to operate or construct)
  - A new Health Sciences Building for Central Carolina Community College (\$14.3 million)
  - A new elementary school in Northeast Chatham (\$30.6 million)
  - A new high school in the northeast for 1000 students

The **target goal** Energy Use Intensity (EUI) for new buildings shall be as follows

K-12 School 17.4 kBtu/Sqft

College/University 31.2 kBtu/Sqft

These targets can be accomplished by implementing innovative sustainable design strategies.

2. Adopt the use of third party certification such as Leadership in Energy and Environmental Design (LEED) or equivalent for all county facilities and schools (See Appendix A for suggested language).
3. Benchmark energy, water and waste use for all existing and new facilities and schools with Energy Star Portfolio Manager.
4. Create a position to oversee future projects from RFQ and RFP through building operations and maintenance

## **Appendix A: Recommendations for sustainable facilities**

### **Policy Statement:**

The County of Chatham ("County") is committed to environmental, economic, and social stewardship of County buildings and facilities and continues to demonstrate environmental leadership in the community. Effective \_\_\_\_\_, 2017 all newly constructed County-owned, County-managed and County-funded occupied buildings and major renovations (5,000 sq.ft. & greater) and any size renovation impacting major building systems associated with energy consumption will be designed and constructed to meet LEED Version 4 Silver Level or and equivalent third party certification, as a minimum, be formally LEED certified, and achieve Designed to Earn ENERGY STAR Certification.

In addition, county Staff will choose existing County-owned facilities to become LEED Existing Building: Operations & Maintenance (EBOM) certified and achieve ENERGY STAR Certification over a 10-year phased approach.

The County made the determination to require a third party certification recognizing the value the process will bring to the County's goal of being a global environmental leader. These certifications have become customary practice in the building community as entities have seen the proven benefits and reduction of associated premium costs.

Recognized benefits include:

- A comprehensive industry-accepted process and framework to guide design, building, renovation, operation and maintenance;
- A community of professionals to offer support, guidance and practical experience;
- Access to the latest technologies and practices;
- A vehicle to measure the County against other municipal environmental leaders globally;
- A rigorous third party commissioning process;
- An ongoing method to assist with measurement, verification, recording and reporting of sustainable features;
- Cost savings and improved working conditions; and
- A consistent county-wide method by which the County will design, construct, renovate operate and maintain its occupied facilities.

However, recognizing that no system is perfect, Chatham County has written the policy to allow for flexibility where a certification process conflicts with the County's environmental, economic or societal values.

### **Policy Purpose:**

This Policy for Sustainable Facilities ("Policy") is intended to direct County staff to locate, design, construct, operate and maintain sustainable County-owned, County-managed, and County-funded

facilities, which meet the functionality and service delivery needs of the citizens of Chatham County while minimizing environmental impacts and conserving and protecting all resources, now and in the future. Sustainable facilities not only provide environmental benefits to the community, they result in economic savings to the County, support the region's sustainable building industry, and protect occupant health, maximize productivity and encourage sustainable employee behaviors. All these elements are crucial for staff to address when striving to achieve the County's goal of becoming a global leader in environmental sustainability.

**Definitions:**

***County-owned, managed, and/or funded:*** Facilities owned, managed or provided funding by the County.

***Designed to Earn ENERGY STAR:*** Recognizes a design project that meets strict EPA criteria for estimated energy performance. It signifies that, once built, the building is poised to achieve top energy performance and will be eligible to earn ENERGY STAR certification.

***ENERGY STAR Certification:*** Recognizes an existing building that meets strict EPA criteria for estimated energy performance. It signifies the building achieves top energy performance.

***LEED (Leadership in Energy and Environmental Design):*** Consensus based generalized point rating system for locating, designing, constructing, operating and certifying sustainable buildings. Rating system addresses environmental predetermined categories that include sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental policy, design and process innovation, and LEED Accredited Professional.

***LEED-EBOM:*** Consensus based generalized point rating system for ongoing operations and maintenance of existing commercial and institutional buildings. The certification system identifies and rewards current best practices and provides an outline for building's to use less energy, water and natural resources; improve the indoor environment; and uncover operating inefficiencies.

***Major Renovation:*** A renovation of at least 5,000 square feet of internal occupied space involving significant Mechanical, electrical & plumbing features of the facility.

***New Construction:*** County-owned buildings and facilities that are to be planned and constructed on a new or existing site, including, but not limited to, new office, arena, and fire and police stations. Occupied facility/space: A facility or enclosed space providing for human activity on a regular basis, including parking decks.

***Uniquely cost prohibitive:*** A cost premium greater than a 5% of the total project budget, due to the inclusion of sustainable features & associated design fees per certification of new and existing facilities