



### **Agenda Item Details**

Meeting	Jul 07, 2021 - City Commission Meeting
Category	13. POLICY FORMATION AND DIRECTION
Subject	13.03 Green Building Policy -- John Powell, Environmental Services & Facilities
Access	Public
Type	Action, Discussion
Preferred Date	Jul 07, 2021
Absolute Date	Jul 07, 2021
Fiscal Impact	Yes
Budgeted	Yes
Budget Source	Capital Budget
Recommended Action	Option 1 – Adopt a Green Building Policy, which incorporates energy efficiency, sustainability, resilience, health, and wellness standards into City-owned building renovation and new construction projects.

### **Public Content**

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### ***Statement of Issue***

Buildings are a primary source of energy consumption and greenhouse gas emissions. However, environmental impacts from building renovation, new construction, day-to-day operation, and eventual deconstruction can be significantly reduced through proper site selection, design, materials, and proactive maintenance. If planned correctly, a building can foster sustainable practices well beyond its four walls by supporting the use of alternative modes of transportation, educating employees on sustainable practices that can be implemented both at work and at home, and much more. Properly designed buildings can also reduce operating costs, minimize strain on local infrastructure, and improve employee morale, productivity, and wellness. Consistent with the City's goal to reach 100% renewable energy by 2050 as provided in City Resolution No. 19-R-04, staff recommends the adoption of a Green Building Policy which incorporates energy efficiency, sustainability, resilience, health, and wellness standards into City-owned renovation and new construction projects.

### ***Recommended Action***

Option 1 – Adopt the Green Building Policy which incorporates energy efficiency, sustainability, resilience, health, and wellness standards into City-owned building renovation and new construction projects.

### ***Fiscal Impact***

The fiscal impact of incorporating green building standards into future renovation and construction will be project specific. Initial capital costs are expected to be offset through reduced energy consumption, maintenance, and operating costs over the lifecycle of the building.

### **Supplemental Material/Issue Analysis**

## *History/Facts & Issues*

### *Impacts from Buildings*

Buildings are a primary source of energy consumption and greenhouse gas emissions. In the United States, buildings account for nearly 40 percent of total energy use, 70 percent of total electricity consumption, and 40 percent of carbon dioxide emissions. However, environmental impacts from building renovation, new construction, day-to-day operation, and eventual deconstruction can be significantly reduced through proper site selection, design, materials, and proactive maintenance.

High-performance buildings, those that optimize major building attributes during the design and construction phase such as energy efficiency, resilience, life-cycle performance, and occupant productivity, can significantly improve energy usage resulting in reduced operating costs and minimizing strain on local infrastructure. Moreover, net-zero energy buildings, those that combine the energy efficiency attributes of high-performance buildings along with renewable energy generation, can produce sufficient energy to meet the building's annual energy demand thereby reducing or eliminating reliance on nonrenewable energy off the electrical grid.

If planned correctly, a building can also foster sustainable practices well beyond its four walls by supporting the use of alternative modes of transportation, educating employees on sustainable practices that can be implemented both at work and at home, and much more. Studies also demonstrate that employees who work in green buildings are more productive, feel healthier, and have a better overall experience at their workplace.

### *City Assets and Efforts*

The built environments for large multi-site organizations like the City of Tallahassee are extremely diverse. City owned buildings and structures are spread across more than 100 different properties located in three different counties in order to provide essential services and public amenities to the community and beyond. These structures range in age from almost new to more than 100 years old, in size from a small park restroom to a five-story office building, and in use from public meeting spaces and community centers to emergency services and safety-sensitive utilities production.

The City began incorporating energy efficiency, sustainability, resilience, health, and wellness into building repair, renovation, and new construction long before these building philosophies were popularized. These efforts prove most effective when incorporated early, during the initial planning and design phase of a project. Studies have shown there is generally no significant difference between the average cost of a green building and a traditionally designed building, and that any added initial capital costs were typically offset by long-term operating savings.

The City continues to incorporate these standards into building related projects. This is evidenced in various City buildings including but not limited to the Leadership in Energy and Environmental Design (LEED) Silver Certified Solid Waste Services Building, LEED Silver designed Fire Station No. 16, and City Hall which includes numerous green building components such as automatic restroom faucets, hand dryers, and doors, LED lights, automated HVAC controls, healthy vending machines, and more. Green building expectations are also included in solicitation requests and incorporated into associated contracts and purchase orders.

### *National Building Standards*

Multiple third-party organizations offer energy efficiency, sustainability, resilience, health, and wellness standards and services such as the U.S. Green Building Council's LEED program, Earth Craft, Building Research Establishment Environmental Assessment Method, Energy Star, Building Owners and Managers Association 360, Net Zero Energy Building, and Green Globes. These independent certifications provide an opportunity for organizations developing their programs to learn more about the benefits of green building and obtain technical assistance. They also provide a method for those with existing programs to further develop, benchmark operations, and compare their success to others. As such, these standards are frequently referenced and applied to City building projects, and have been incorporated into the attached Green Building Policy.

### *Policy Development and Community Involvement*

Staff solicited input from multiple City Departments and engaged and received support from environmental advocates such as the League of Women Voters, Sustainability Tallahassee, and the Sierra Club regarding the development of this policy. Additional

meetings with stakeholders will continue as the policy is implemented and as specific standards, such as air leakage and energy use intensity, are developed and included in related documents including the City's Clean Energy Plan which is currently under development.

### *Recommendation*

Consistent with the City's goal to reach 100% renewable energy by 2050 as provided in City Resolution No. 19-R-04, staff recommends approval of the attached Green Building Policy. The policy will require City-owned municipal building renovation and new construction projects over 5,000 square feet to:

1. Incorporate energy efficiency, sustainability, resilience, health, and wellness to the maximum extent practicable,
2. Include the necessary infrastructure for achieving high-performance building objectives and future transition to net-zero energy consumption, including electric vehicle charging stations and rooftop solar,
3. Meet or exceed a level equivalent to United States Green Building Council's LEED Gold, Green Globes, WELL Building, Florida Green Building Coalition, or other nationally recognized sustainability rating system,
4. Upon completion, obtain confirmation that the project was constructed to meet and achieve the energy efficiency standards in accordance with design specifications, and
5. Throughout the life-cycle of the building, conduct regular audits to assess building performance and to identify and implement additional strategies to further advance these green building goals.

### *Administration*

The City's Environmental Services and Facilities Department will be responsible for the oversight, implementation, and periodic update of this policy.

### *Department(s) Review*

Housing and Community Resilience, City Attorney, Energy Services, Resource Management, Human Resources

### *Options*

1. Adopt the Green Building Policy which incorporates energy efficiency, sustainability, resilience, health, and wellness standards into City-owned building renovation and new construction projects.

Pros: Reduces energy consumption, reduces operating and maintenance costs, reduces strain on local infrastructure, enhances employee wellness, and aligns with the City's Strategic Plan and Clean Energy Plan goals.

Cons: May increase initial cost of municipal renovation and new construction projects.

2. Do not adopt the attached Green Building Policy

Pros: Avoids potential increase in the initial capital cost of City-owned renovation and new construction projects.

Cons: Does not realize long-term benefits associated with reduced energy consumption, reduced operating and maintenance costs, reduced strain on local infrastructure, enhancement of employee wellness, or align with the City's Strategic Plan and Clean Energy Plan goals.

### *Attachments/References*

Attachment 1 - Proposed Green Building Policy

[Draft Green Building Policy \(June 11, 2021\).pdf \(103 KB\)](#)

