

**CLIMATE CHANGE, ENERGY AND ENVIRONMENT COMMISSION**

**c/o Department of Environmental Services  
2100 Clarendon Blvd., Suite 705  
Arlington, VA 22201**

May 25, 2023

Honorable Christian Dorsey, Chair  
Arlington County Board  
2100 Clarendon Blvd., Suite 300  
Arlington, VA 22201

Re: Crystal Towers 3 (1600 S. Eads St.)

Dear Chair Dorsey:

The Climate Change, Energy and Environment Commission (C2E2) has reviewed the application for the Crystal Towers 3 (1600 S. Eads St.). The project is participating in the Green Building Incentive Program at the .25 FAR level but the project falls short of what is necessary to address the climate crisis and Arlington's own climate goals. **Overall, we score this project's contribution to meeting Arlington County's Community Energy Plan (CEP) targets at 60 %, indicating the project falls below what is required to achieve the County's carbon neutrality and other sustainability goals.** Please reference the Appendix for further detail on how C2E2 has assessed this project.

The success of Arlington's CEP depends, in large measure, on the County's resolve in ensuring that all buildings are at least zero carbon-ready. In practical terms, that means four things for every new and renovated building: make it highly efficient; make it electric; make the electricity renewable; and minimize its total carbon footprint through selection of low carbon materials and responsible management of construction debris. In this case, The Applicant falls short in meeting these criteria. New buildings such as this one lock in use of fossil fuels for decades undermine the County's carbon neutrality goals.

**Green Building Certification and Carbon Reduction:**

The project is targeting a LEED V.4 Gold rating, but to achieve the County's stated CEP targets, **C2E2 recommends that developers be required to explore options to achieve Zero Carbon Certification.** A Zero Carbon Feasibility study could identify a pathway to zero carbon emissions in operations and reduce embodied carbon in materials and resources used. We recommend that the Applicant seek out expertise from organizations such as the Building Decarbonization Coalition, the International Future Living Institute, or the New Building Institute to explore how to achieve these goals.

### **Energy Efficiency:**

The Applicant is committing to the minimum energy efficiency GBI requirement of 20 percent over the ASHRAE baseline and to achieve an Energy Star rating of 85, which is higher than the minimum. The energy performance assessment includes alternative iterations that would increase energy efficiency and, as noted, a Zero Carbon feasibility study could identify additional energy efficiency gains, which we hope the Applicant will consider incorporating. C2E2 recommends energy gains for 25 percent or more over the existing baselines.

### **Electrification of Systems:**

This project plans to utilize fossil gas for both water heating and HVAC systems but the energy performance analysis appeared to identify a pathway to an all-electric building (there was a discrepancy between the graphics and descriptions of the iterations examined). We encourage the Applicant to continue to assess these options to achieve electrification of these key systems.

### **Electric Vehicle Charging:**

The Applicant has indicated that the project will have EV chargers installed in 4% of parking spots with another 10% of parking spots ready for future EV chargers. **The C2E2 strongly recommends that all projects that come to the SPRC for consideration strive for 50% of parking spots to be EV ready.** This will help meet future demand for a full transition to electric vehicles and avoid the need for much more expensive retrofitting later. The Applicant should consider 'smart charging' technology to maximize the number of vehicles that can be charged while reducing demands on the electrical capacity available at site.

Other sustainability elements include a planned 64 kW solar array on one of the adjacent buildings in the complex, which is about double the GBI baseline requirement. There may be additional roof space on the second tower of these buildings that could handle additional solar panels and shift additional electricity use to renewable energy. The Applicant plans an extensive green roof on the canopy area between the north and south towers to manage stormwater and add an attractive biophilic space and expansion of native plant landscaping. The Applicant should seek to minimize the loss of existing trees during the construction and if and when residents of the entire complex reduce their car ownership, the Applicant should consider opportunities to reduce surface parking to expand available greenspace.

The latest report just released in March by the Intergovernmental Panel on Climate Change (IPCC) emphasizes the dire need for action to save our planet. The world is facing a catastrophic climate crisis that requires immediate action by individuals, governments, and businesses to avoid the worst consequences, and all future development needs to align to these goals. We urge the County to ask the Applicant to move into the forefront with this project by offering an all-electric building.

Sincerely,



Joan McIntyre

Chair, Climate Change, Energy and Environment Commission

CC: Daniel Weir, Chair, Planning Commission  
James Shroll, SPRC Chair, SPRC  
Anthony Fusarelli, CPHD Director  
Courtney Badger, CPHD Staff

**C2E2 SPRC CHECKLIST**

**PROJECT NAME:** 1600 S. Eads St. -- Crystal Towers 3  
**COMMISSIONER**  
**REVIEWING:** Joan McIntyre

**Overall Score**

**60%**

Building Component	GBI or C2E2 Baseline (Meets)	Requirements to Meet CEP & Sustainability Goals (Exceeds)	1600 S. Eads St. -- Crystal Towers 3 (Evaluation)	Recommendation / Comments	Assessment
<b>Green Building Certification and Carbon Reduction</b>					<b>44%</b>
Certification	Commercial: LEED Gold Multi-family: Earthcraft also permissible	Commercial: LEED Platinum Multi-Family: Earthcraft also permissible		GBI participation at the 0.25 FAR	Meets
Zero Carbon*	Evaluate feasibility of Zero Carbon certification (ILFI)	Zero Carbon Certification (ILFI)--(GBI .7 FAR level)			Falls short
Building materials	Meet the criteria that would earn the project at least two (2) points for LEED version 4.1 MR credit Building Life Cycle Impact Reduction.	Score at least ten (10) overall for LEED version 4.1 Materials and Resources.			Falls short
<b>Energy Efficiency</b>					<b>75%</b>
Energy Optimization	Commercial: Min. 10% (20%) improvement LEED v 4.1 (v 4) Multi-Family: HERS Index of 65 also permissible	Commercial: Min. 20% improvement from LEED v4.1 Multi-family: HERS Index of 50 also permissible		Committing to GBI baseline of 20%	Meets
AIRE GBI required narrative	Provide narrative on Energy Efficiency	Make available on SPRC website			Meets
Energy Star Certification	Must meet Energy Star 75 within 4 years	Meet highest possible GBI standard (differs by FAR level)		Planning for EnergyStar 85	Exceeds
Energy Benchmarking	Install energy meters or monitoring devices	Meet GBI Extra on Advanced Energy Metering			Meets

Electrification					50%
Building's Electrical Capacity	Electrical infrastructure allows for GBI baseline	Electrical infrastructure allows for 100% electrification			Meets
Utilities Electrification	Electric water heating ready and narrative	Fully electric water heating (commercial and residential)		Baseline design identifies centralized gas boilers for DHW but energy performance model identified an option for centralized heat pump DHW	Falls short
	Electric HVAC ready and narrative	Fully electric HVAC (commercial and residential)		Baseline includes gas-fired DOAS system although energy model indicated an all electric option (seems to be a contradiction between the graphics on energy consumption and description of the relevant iterations.	Falls short
	Electric cooking ready and narrative	Electric cooking; electric ready for restaurants.			Meets
Electric Vehicle Infrastructure					67%
Electric Vehicle Charging	4% of parking spots have EV charging	10% of parking spots have EV charging			Meets
	15% of parking spots are EV-ready	50% of parking spots are EV-ready			Meets
Electricity from Renewable Sources					50%
Renewable Energy	2W/ft <sup>2</sup> onsite solar or equivalent	On-site and/or off-site for 50% of annual load		A 65 kW Solar array to be installed on adjacent Crystal Towers North building (34.4 kW GBI minimum)	Meets
Battery Energy Storage*	Battery Energy Storage ready	Battery Energy Storage as backup generation			Falls short

Environmental Sustainability					67%
Biophilia / Open Space	Provide narrative addressing listed issues	Create a sense of natural environment, habitats. Keep mature trees, tree canopy, native plants, etc		Planning an extensive green roof on structure connecting the existing North and South towers, open space and native plant landscaping	Meets
Storm Water Management	Meet Virginia building code	Seek use of pervious materials; offset storm water with green roof, bio-retention or manufactured treatment device			Meets
Bird-friendly Material	Must minimize bird strikes by meeting GBI criteria	GBI criteria plus ground floor bird-friendly material			Meets
Light Pollution Reduction	Meet light pollution reduction in GBI	Dark Sky-approved "Friendly Fixture" certification			Meets
Water Use	WaterSense label for all toilets, bathroom faucets, and showerheads installed in residential and hotel units	In addition to Meets, must not use potable water for irrigation.			Meets
Social Equity					67%
Diversity, Equity and Inclusion	1. One company on development team with DEI program 2. LEED Social Equity Checklist completed	1. Development team presents and discusses LEED Social Equity Checklist to SPRC and AIRE 2. Develop project specific DEI plan			Meets

**\*C2E2 Baseline Requirements**