

**CLIMATE CHANGE, ENERGY AND ENVIRONMENT COMMISSION**

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

June 20, 2023

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

Re: ARVA (2201 Arlington Blvd.)

Dear Chair Dorsey:

The Climate Change, Energy and Environment Commission (C2E2) has reviewed the application for the ARVA (2201 Arlington Blvd). The project is participating in the Green Building Incentive Program for a bonus density of 0.25 FAR 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 58%, 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. The Applicant's energy model acknowledges the eventual need for full electrification and identifies options to achieve a highly efficient and all electric building design.

**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 LEED scorecard for this project indicates a commitment to meet the GBI minimum improvement in energy efficiency of 20 percent over the ASHRAE baseline and to achieve an Energy Star rating of 75. The energy model indicates that this project could achieve energy efficiency gains of at least 25 percent, and C2E2 encourages the Applicant to incorporate additional measures to achieve these additional energy savings.

### **Electrification of Systems:**

This project plans to utilize fossil gas for HVAC, water heating, and likely a backup generator and retail cooking. The baseline design calls for a Direct Outdoor Air System (DOAS) for ventilation that utilizes heat pumps with a backup gas system for extreme cold, a better option than conventional gas furnace DOAS. The energy model identifies electric options for these systems and indicates that such systems would reduce overall energy consumption and greenhouse gas emissions. Once Arlington achieves its goal of renewable sources for electricity use by 2035, an all-electric building would operate with zero GHG emissions. The Applicant should continue to pursue options to meet long term electrification objectives at the outset.

The Applicant noted that current planned transformer capacity is insufficient to meet full electrification needs as well as for installing more than the minimum required EV charging capability and would require additional investment for the needed expansion. Other developers have raised similar issues when seeking expanded capacity from Dominion Energy and perhaps County staff could facilitate discussion between developers and Dominion Energy to meet the growing demand for additional capacity to support electrification of electric buildings and vehicles.

### **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** (even if the grid capacity is currently insufficient). 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**

The Applicant will purchase offsite renewable energy or renewable energy credits to cover 10 percent of energy use over ten years in lieu of on-site solar, citing insufficient roof space. The Applicant has proposed an attractive nature-based design and will provide a public park as part of the community benefits. As these designs advance, the Applicant should look for opportunities to maximize the tree canopy on the site to reduce urban heat island impacts and enhance the connection for residents and neighbors to nature. The Applicant should also seek additional opportunities in material selection to lower the life cycle carbon emissions from the project.

The latest report 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,

A handwritten signature in black ink that reads "Joan F. McIntyre". The signature is written in a cursive style with a large initial "J" and "M".

Joan McIntyre  
Chair, Climate Change, Energy and Environment Commission

CC: Devanshi Patel, Chair, Planning Commission and  
Tenley Peterson, Chair, SPRC  
Anthony Fusarelli, CPHD Director  
Peter Schulz, CPHD Staff

**C2E2 SPRC CHECKLIST**

**PROJECT NAME:** 2201 Arlington Blvd.--ARVA

**Overall Score**

**COMMISSIONER**

**REVIEWING:** Joan McIntyre

**58%**

Building Component	GBI or C2E2 Baseline (Meets)	Requirements to Meet CEP & Sustainability Goals (Exceeds)	2201 Arlington Blvd.--ARVA (Evaluation)	Recommendation / Comments	Assessment
Green Building Certification and Carbon Reduction					44%
Certification	Commercial: LEED Gold Multi-family: Earthcraft also permissible	Commercial: LEED Platinum Multi-Family: Earthcraft also permissible		Participating in the GBI program at 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.		Seeking 0.5 pts for environmentally preferable products	Falls short
Energy Efficiency					67%
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			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)			Meets
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		Applicant notes current planned transformer capacity is not sufficient for full electrification and expanded EV charging capacity	Meets
Utilities Electrification	Electric water heating ready and narrative	Fully electric water heating (commercial and residential)		Planning centralized gas-fired boilers for hot water--energy model indicates potential for electric and heat pump options	Falls short
	Electric HVAC ready and narrative	Fully electric HVAC (commercial and residential)		Planning gas-fired auxiliary for DOAS system although energy model indicates potential for electric auxiliary	Falls short
	Electric cooking ready and narrative	Electric cooking; electric ready for restaurants.		Electric cooking planned for residential units, not sure whether restaurants or other food vendors will be part of the retail and whether fossil gas hook ups would be provided	Meets
<b>Electric Vehicle Infrastructure</b>					<b>67%</b>
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
<b>Electricity from Renewable Sources</b>					<b>50%</b>
Renewable Energy	2W/ft <sup>2</sup> onsite solar or equivalent	On-site and/or off-site for 50% of annual load		Planning offsite renewable energy purchase for 10 percent of annual energy use over 10 years per GBI requirement	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		Generally attractive biophilic landscape plan; applicant should seek to maximize canopy trees on the site and public park	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		Seeking 3 pts to manage 85 percentile storm for zero lot line projects--no indications whether these measures meet or exceed current requirements	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.		Looking at options for irrigation and no 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**