

To: Paul Stoddard, Director of Planning and Zoning

For: **Everyone Interested in the Planning Commission's Consideration of the GREEN BUILDING PLAN**

From: Stephen Koenig, Planning Commission Vice Chair, and Holly Lennihan, Planning Commissioner

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REFERENCES AND OVERVIEW

Our approach to evaluating the proposed GREEN BUILDING PLAN is informed by our understanding of:

- › The 2019 RESOLUTION OF THE ALEXANDRIA CITY COUNCIL TO DECLARE A CLIMATE EMERGENCY.
- › The ENVIRONMENTAL ACTION PLAN 2040, and the ENERGY AND CLIMATE CHANGE ACTION PLAN.
- › The progress of new development in Alexandria since inception of the GREEN BUILDING POLICY in 2019.
- › The 2023 PLANNING COMMISSION and ENVIRONMENTAL POLICY COMMISSION Joint Letter to CITY COUNCIL which advocated for the need to update the GREEN BUILDING POLICY and proposed a strategy to do so.

As a result, our analysis is based upon whether this GREEN BUILDING PLAN will require each new building in Alexandria to embody the following characteristics:

- › **ELECTRIC** ~ it operates without burning fossil fuel on-site.
- › **EFFICIENT**~ it utilizes energy to current industry standard best practice.
- › **RENEWABLE** ~ it generates electricity on-site.
- › **CLEAN** ~ it emits very little greenhouse gas.

If the PLAN fosters success in this endeavor, then people will live and work over the coming decades in new buildings which are healthier and safer, significantly less expensive to energize, and more resilient in the face of escalating climate change impacts.

This draft PLAN makes two critically important process improvements by introducing ENERGY USE INTENSITY as a metric of performance, and by establishing an onsite RENEWABLE ENERGY requirement.

However, it simultaneously sets inadequate performance targets that would not produce meaningful progress in those two critical aspects of new buildings.

To refine the review process, while deferring establishment of requirements that actually improve the architecture, would not be a worthwhile result from this multiyear civic engagement during an emergency.

We therefore propose the following modifications for consideration by the PLANNING COMMISSION.

MODIFICATIONS AND DISCUSSION

0. SUBJECT

- **Modification.**

- › Discussion.

1. ENERGY USE INTENSITY

- **Set the Multi-Unit Residential Target at 30 EUI.**

- › The draft PLAN proposes **38** EUI for Multi-Unit Residential projects. This does not align with current best practice in design and construction.
- › PLANNING COMMISSION'S recommendation to the OFFICE OF CLIMATE ACTION in June, 2025 was **30** EUI in 2025, and **23** EUI in 2030. This aligns with current best practice in design and construction as represented by the ASHRAE Advanced Energy Design Guidelines for Multifamily Buildings ~ 2022.

- › Buildings in our region are regularly built to this standard. For example, see pp. 90-96 in the draft PLAN for 13 existing multi-unit buildings in DC which are 4-13 stories tall, and have EUI values which range from **24 - 37**. These buildings are indistinguishable in scale and character from residential architecture in Alexandria, and all of them have an EUI lower than the draft PLAN target of 38.

2. **RENEWABLE ENERGY**

- **Generate on-site renewable energy equal to at least 5% of the anticipated annual energy use.**

- › The draft PLAN proposes on-site renewable generation at a very low 3% of annual energy use.
- › PLANNING COMMISSION'S recommendation to the OFFICE OF CLIMATE ACTION in June, 2025 was 5%.
- › 5% is still low, but would be achievable and constitute a more productive start.
- › If applied consistently to every project, the city would finally begin to assemble an inventory of buildings with functional photovoltaic (PV) infrastructure and active clean energy generation on-site.
- › If applied consistently to every project, the resistance of the development community to installing solar would be overcome by experience, and local subcontractor and workforce capacity would expand.
- › These new buildings would all be positioned to become truly resilient over time with the addition of on-site battery storage as the affordability of that technology improves.
- › An integrated approach to roof design would facilitate enlargement of these initial solar systems over time, as resources allow.

3. **CLEAN ENERGY FUND**

- **Eliminate the proposed Alexandria Clean Energy Fund.**

- › The Clean Energy Fund would significantly inhibit realization of the Renewable Energy goals of the PLAN.
- › It would be a very attractive option for applicants to avoid building renewable capacity simply because they don't want to. Offering such an easy out would demonstrate a disconcerting lack of confidence in the legitimacy of our new renewable energy requirement.
- › The \$150K cap is so low that most, if not all, larger projects would choose not to install solar on-site.
- › Developers would continue to build 'solar-ready' buildings that are incapable of generating renewable energy. Contributions would accumulate, and the City would be tasked with the location, scope, design, and execution of projects to utilize the funds.
- › It can be expected that at the end of that process the amount of clean energy generated per dollar collected would be discernibly lower than if each applicant had simply designed and built some solar on their project to begin with.

4. **ELECTRIFICATION**

- **Prohibit Onsite Combustion except for specific limited exceptions.**

- › Review and update the list of 'Permitted Combustion Uses' biennially.

5. **SMALL PROJECTS**

- **Define Small Projects as smaller than 10,000 square feet of gross floor area.**

- › The 25,000 gross square feet (gsf) proposed in the PLAN equates to a 5 story building with a 5,000 gsf footprint. Such a project is large enough to use standard review Options 1 or 2.

6. **NET ZERO ENERGY**

- **Select and include an industry recognized NET ZERO ENERGY standard in the PLAN.**

- › The requirement to provide 100% Renewable Energy through a combination of on-site generation and qualified off-site renewable energy procurement is very challenging and needs a consistent set of requirements.

7. DEVELOPMENT REVIEW

- The City's Office of Climate Action is directed to create a process for reviewing development submissions and periodically updating the Green Building Plan's application in the City's development process, administratively and as necessary, to accommodate swift, accurate, and effective submission review and GREEN BUILDING PLAN implementation..

› This language was included in the September 2025 draft of the PLAN.

8. FUTURE UPDATES

- The Office of Climate Action will, at least every two years, review the standards set in this policy, particularly Energy Use Intensity, Renewable Energy, and Permitted Combustion Uses, and recommend any changes to City Council.

› This is fundamental. Without scheduled periodic review, the PLAN risks reinforcing the status quo rather than sustaining thoughtfully ambitious change. If weak targets are adopted now, that risk is amplified.

› This language, save for Permitted Combustion, was included in the September 2025 draft of the PLAN.

MODIFICATIONS WHICH PLANNING COMMISSION RECOMMENDS TO CITY COUNCIL

0. **SUBJECT** Location in the document
Instructions in plain text.
"Proposed changes are quoted, and include text to remain, ~~text to be deleted~~, and *text to be inserted*."
1. **ENERGY USE INTENSITY** Table 2. Site EUI by Property Type / p.18
"Multi-Unit Residential ~ High Rise: EUI ~~38~~ 30, Multi-Unit Residential ~ Other: EUI ~~38~~ 30."
2. **RENEWABLE ENERGY** Renewable Energy ~ Option 1. / p.19
"Generate at least ~~3%~~ 5% of the project's anticipated total annual energy use with on-site renewable energy."
3. **CLEAN ENERGY FUND** Renewable Energy ~ Options 2. and 3. / pp.19-20
Delete the following, including the associated text paragraphs, steps, and formulae: ~~"2. Option 2: Contribute to the City of Alexandria's Clean Energy Fund based on the formula below."~~
Delete the following, including associated text: ~~"3. Option 3: Any combination of Option 1 and Option 2."~~
4. **ELECTRIFICATION** Electrification / p.20
Add a second sentence: *"Onsite combustion is prohibited unless included in Permitted Combustion Uses."*
5. **SMALL PROJECTS** Small Projects / p.28
"Residential projects with four or fewer units, or projects under ~~25,000~~ 10,000 square foot gross floor area are exempt from Options 1, 2, and 3 . . ."
6. **NET ZERO ENERGY** Option 5 : Public Projects / p.29
Select and include an industry recognized NET ZERO ENERGY standard for Public Projects in the Development Review Process (item 7.) to be created by the Office of Climate Action.
7. **DEVELOPMENT REVIEW** Location to be determined
Add: *"The City's Office of Climate Action is directed to create a process for reviewing development submissions and periodically updating the Green Building Plan's application in the City's development process, administratively and as necessary, to accommodate swift, accurate, and effective submission review and GREEN BUILDING PLAN implementation."*
8. **FUTURE UPDATES** Location to be determined
Add: *"The Office of Climate Action will, at least every two years, review the standards set in this policy, particularly Energy Use Intensity, Renewable Energy, and Permitted Combustion Uses, and recommend any changes to City Council."*

TO: Members of the Planning Commission and City staff

FROM: Robert Dubé, Planning Commissioner

RE: EV Charging and Life Safety

BACKGROUND:

Electric vehicle charging presents fire and life-safety considerations distinct from traditional vehicle fires, particularly in enclosed and below-grade parking structures common to adaptive reuse projects. Current Virginia building and fire codes, which are under active review, primarily address EV charging from an electrical standpoint and do not yet fully account for evolving fire behavior and mitigation needs. As the Green Building Plan advances EV infrastructure requirements for new development and office-to-residential conversions, a phased, safety-forward approach is warranted. Consistent with peer jurisdictions, this includes prioritizing EV-ready infrastructure, allowing phased charger installation, and ensuring Fire Official review of charger location and density as codes continue to mature.

With that said, I will be making the following motion for your consideration (This amendment intends to advance EV adoption while prioritizing life safety, accommodating adaptive reuse, and recognizing that EV fire safety standards are evolving):

EV Charging and Life Safety

1. EV-Ready Priority

Require applicable projects to provide EV-ready infrastructure, including electrical capacity, conduit, and space allocation, while allowing phased installation of EV charging equipment following issuance of a Certificate of Occupancy.

2. Fire Official Authority

Specify that the location, quantity, and type of EV charging equipment shall be subject to review and approval by the Fire Official, who may limit charger density, restrict placement in enclosed or below-grade garages, and require additional life-safety measures as necessary.

3. Charger Type Differentiation

Clarify that Level 2 charging is the preferred standard for enclosed parking structures and that DC fast charging shall not be required in enclosed or below-grade garages.

4. Adaptive Reuse Flexibility

Allow adaptive reuse projects, including office-to-residential conversions, to modify EV charging installation requirements where existing conditions limit feasibility, provided EV-ready infrastructure is installed to the maximum extent practicable.

5. Code Alignment and Future Updates

State that EV charging requirements shall align with adopted Virginia building and fire codes and that projects compliant at the time of approval shall not be penalized by future code amendments.