



ARLINGTON COUNTY, VIRGINIA

County Board Agenda Item Meeting of September 21, 2019

DATE: September 13, 2019

SUBJECT: Revision to the Green Building Density Incentive Policy for Site Plans to add Zero Carbon certification as an optional method to earn bonus density under Arlington County Zoning Ordinance (ACZO) §15.5.7.A.1.

C. M. RECOMMENDATION:

Amend the County's Green Building Density Incentive Policy for Site Plans (see attached) to add Zero Carbon certification as an optional method to earn bonus density under Arlington County Zoning Ordinance (ACZO) §15.5.7.A.1.

ISSUES: A minor revision to the Green Building Density Incentive Policy is proposed to add Zero Carbon certification as an option for Site Plan developments requesting green building bonus density. No major issues have been identified as of the date of this report.

SUMMARY: It is proposed that Arlington County support its commitment to the Community Energy Plan goal of carbon neutrality by 2050 through this addition to the Green Building Density Incentive Policy for Site Plans. To encourage exceptionally energy efficient construction in Arlington and investment in renewable energy, staff recommends that Zero Carbon certification be included as an acceptable compliance path for Site Plan projects requesting bonus density. Zero Carbon certification provides a pathway suited for projects in dense urban areas that are targeting carbon neutrality. This change provides an additional compliance option to the voluntary Green Building Density Incentive Policy and provides flexibility to encourage new Site Plan development projects to participate at higher levels of sustainability. Each project will be evaluated on a case-by-case basis. This amendment is aligned with the Community Energy Plan goals to support innovative energy efficiency technologies and investment in renewable energy.

All existing components and requirements of the Green Building Incentive Policy will remain unchanged as outlined in the [Board Report dated November 15, 2014](#).

County Manager:

MJS/SFW

County Attorney:

[Signature]

[Signature]

Staff: Jessica Abrialind, DES
Joan Kelsch, DES

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BACKGROUND: Staff proposes enhancing and upgrading the green building density incentive policy for site plan projects. Originally adopted in 1999 and updated in 2003, 2009, 2012, and 2014, the voluntary green building policy has been an effective tool for reducing the environmental impacts of new buildings on the community.

The current policy incentivizes upfront investment in energy efficient building design and construction as part of the overall LEED Version 4 or Earthcraft building certification. In addition, the policy requires “stretch” measures in energy efficiency and sustainability design and construction for all participating projects as described in the November 15, 2014 Board Report.

DISCUSSION: The current policy allows Site Plan projects to earn bonus density in exchange for a commitment to obtain Net Zero Energy certification, as defined by the International Living Futures Institute (ILFI), in addition to at least LEED Gold certification and two Arlington Community Priority credits. [Arlington Priority Credits](#) are specific LEED credits identified through the community process as priorities in Arlington to address local sustainability goals. Net Zero Energy certification requires that an exceptionally energy efficient building be constructed and that the building generate as much on-site renewable energy as the building uses over the course of a year (with a few exceptions).

Since the Net Zero Energy option was added to the policy in 2014, no Site Plan projects have requested Net Zero Energy certification in exchange for bonus density. Net Zero Energy certification is difficult to achieve in dense urban areas because of the limited space available on-site for renewable energy generation. The taller the building, the more challenging this becomes because taller buildings consume more energy but have limited space for on-site renewable energy generation. Because it is so difficult to meet the Net Zero Energy requirements on tall buildings in urban areas, the ILFI created a new rating system called Zero Carbon certification. Zero Carbon certification is a new, internationally-acknowledged green building rating system that offers an option for off-site renewable energy resources when on-site conditions do not support carbon-neutrality.

In order to earn certification, Zero Carbon buildings must achieve a targeted energy efficiency level. New projects may not utilize on-site combustion. One hundred percent of the project’s energy use must be offset by newly installed on- or off-site renewable energy. Any off-site renewable energy must be provided for the equivalent of 15 years.

Zero Carbon certification meets the same intent as Net Zero Energy certification but is achievable for large, dense developments, like those in Arlington, because it allows for off-site renewable energy generation. Therefore, staff recommends that Zero Carbon certification be included as an acceptable alternative to Net Zero Energy certification for Site Plan projects requesting bonus density as part of the Green Building Incentive Policy. Each project and the amount of bonus density to be earned in exchange for a commitment to Zero Carbon certification will be evaluated on a case-by-case basis. The amount of bonus density that can be earned considers the upfront costs and the ongoing utility cost savings resulting from the green building components incorporated into the projects, as well as the ongoing increased revenue for owners

resulting from the additional density awarded to the project. LEED Gold certification and energy reporting requirements will be required in addition to Zero Carbon certification.

Staff will start a formal analysis in 2020 to review the overall requirements of the Green Building Incentive Policy.

Effective date: The option to allow site plans to earn bonus density in exchange for Zero Carbon certification will be effective immediately.

PUBLIC ENGAGEMENT:

Level of Engagement: AIRE staff consulted with the following commissions and organizations regarding the proposed policy change:

- Long Range Planning Committee (LRPC)
- Planning Commission
- Environment and Energy Conservation Commission (E2C2)
- E2C2 Energy Committee
- Economic Development Commission
- Fiscal Affairs Advisory Committee
- Parks and Recreation Commission
- Chamber of Commerce
- NAIOP, the Commercial Real Estate Development Association

Outreach Methods: AIRE staff presented at the meetings of the groups listed above to review the proposed change and explain its intent and implications. The proposed change has also been posted on the County's main Green Building webpage since June 5, 2019.

Community Feedback: Most discussion centered around general requirements of the Green Building Incentive Policy and a desire to increase the rigor of the policy. Staff will start a comprehensive review of the full policy within the next year. The Planning Commission recommended that during this comprehensive review, staff 1) evaluate the appropriateness of awarding bonus density in exchange for LEED Silver, and 2) evaluate adding energy reporting requirements as a standard site plan condition.

Regarding the minor policy change to add Zero Carbon certification, community feedback received at the meetings listed above was supportive. E2C2, the Arlington Chamber of Commerce, and NAIOP have provided letters supporting the update. The Planning Commission recommended approval of the policy change at their September 11, 2019 meeting. Feedback from the Planning Commission included a recommendation that staff evaluate contract mechanisms to guarantee operations of the off-site renewable energy beyond the 15-year contract requirement of the Zero Carbon program. Staff will explore these options. Feedback from the Energy Committee included a desire to include more on-site renewable energy. NAIOP expressed a desire to identify a specific amount of bonus density offered for Net Zero or Zero Carbon certification. Staff responded that it would be premature to identify a specific amount of

bonus density because the certifications and costs are too new to determine an FAR bonus that would apply universally for all projects. Allowing each case to be evaluated individually maximizes the pool of potential participants. Staff agreed to work in partnership with NAIOP to evaluate a range of appropriate bonus FAR amounts.

CONCLUSION: This revision supports implementation of the Community Energy Plan goal of carbon neutrality by 2050 by encouraging building energy efficiency and investment in renewable energy. This change provides an additional compliance option to the voluntary Green Building Density Incentive Policy and provides flexibility to encourage new Site Plan development projects to participate at higher levels of sustainability.

FISCAL IMPACT: There is no direct fiscal impact on the County. The Green Building Incentive program offers density in exchange for achieving high levels of environmental performance.

Attachment 1
Green Building Bonus Density Incentive Policy for Site Plans
Arlington County, Virginia
Updated September 21, 2019
(new text shown in underline)

Arlington County’s Green Building Bonus Density Incentive Policy is a voluntary program to evaluate special exception site plan requests for bonus density consistent with Section 15.5.7.A.1 of Arlington County’s Zoning Ordinance. All site plan project developers are encouraged to include specific green building components in site plan projects and to commit to becoming certified under the U.S. Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED™) Version 4 program. Additionally, office projects are encouraged to achieve Energy Star certification with a score of 75 post-occupancy.

Arlington offers potential levels of bonus density (as measured in Floor Area Ratio (FAR)) when the developer commits to LEED certification (including post-occupancy energy performance for office buildings), as follows:

LEED v4 Certification (plus Energy Star for office)	FAR Bonus	Arlington Priority	Total FAR Available
Silver	0.25	+ up to 0.05	0.30
Gold	0.35	+ up to 0.05	0.40
Platinum	0.50	+ up to 0.05	0.55

Up to an additional 0.05 FAR may be awarded to buildings that commit to achieving up to two Arlington Priority credits. Each Arlington priority credit may earn up to 0.025 FAR, for a total of up to 0.05 FAR per project.

Additional density above 0.55 FAR may be requested for Net Zero Energy or Zero Carbon certification (as defined by the International Living Futures Institute) in addition to at least LEED Gold certification and two Arlington Community Priority credits.

Midrise (four to eight stories) affordable housing projects receiving tax credits from the Virginia Housing Development Authority (VHDA) may use the Earthcraft version 4 green building rating system in place of LEED version 4 Multifamily Midrise at the Gold and Platinum levels only. For these projects, up to an additional 0.05 FAR may be requested in exchange for achievement of two Arlington Community Priority credits.

All site plan projects that increase density or height in exchange for LEED certification, are expected to have a LEED Accredited Professional on the development team. Projects are also expected to fully evaluate all LEED components and incorporate at least enough LEED credits to achieve baseline LEED Silver and, for office buildings, a minimum Energy Star score of 75, as calculated by Energy Star’s Portfolio Manager benchmarking tool in order to minimize the environmental impact of the project on the site and the community. A specific LEED certification level and Energy Star certification level are identified and included in a site plan

condition. County staff reviews LEED compliance at specific permit applications throughout the demolition and construction process. The applicant’s development team submits the project’s LEED documentation to the USGBC for review and official LEED certification within a specific time frame identified in the site plan condition. The Energy Star certification may be achieved within four years after the building is occupied. The Energy Star Score must be verified by a third party Professional Engineer or Registered Architect that is not a member of the project team.

All bonus density project owners will provide Energy Star Portfolio Manager utility reporting data after occupancy each year for 10 years. These data are provided for informational purposes only. This is not intended to be a performance review of the energy usage in the building; these data will allow staff to evaluate the correlation between the predictive energy model used to design and construct the building, and the actual energy used in the building.

For residential site plan projects, all refrigerators, dishwashers, clothes washers, and ceiling fans initially installed in the residential units shall have earned the U.S. EPA’s Energy Star label. All bathroom sink faucets, showers, toilets initially installed in residential units will have earned the U.S. EPA’s WaterSense label. The need for common area lighting will be reduced through the use of daylighting and energy efficient fixtures and technologies following the guidelines for lighting power density established by LEED.

Because some green components are not complete until a building is operational, enforcement of the green building density incentive policy requires the developer to post a form of financial security acceptable to the County prior to issuance of the first Certificate of Occupancy. In general, the financial security amount is calculated based on the size of the bonus density approved multiplied by the average rental rate for space in the specific area of the County (as calculated by Arlington’s Real Estate Section). For office projects and multifamily residential projects requesting additional density for Energy Star certification of 75, the bond will be divided into two parts: 75% of the financial security will be tied to the LEED certification and 25% of the financial security will be tied to the Energy Star certification post-occupancy. If a project fails to achieve the specified LEED or Energy Star certification, the security will default to the County as follows:

<u>Points missed</u>	<u>Percentage of financial security forfeited</u>
1-2	25%
3-4	50%
5-6	75%
7+	100%

For residential projects not seeking Energy Star certification, 100% of the bond will be tied to completion of the specified LEED certification.