



Arlington's Commercial Green Building Incentives

By Rick Keller

One of the goals of the Arlington Community Energy Plan (CEP) is to increase the energy and operational efficiency of all buildings. The CEP specifies that total energy usage in Arlington's buildings in 2050 should be at least 38% less than energy usage in the 2007 building stock. In other words, regardless of Arlington's growth, total energy usage should decrease by at least a third over the next four decades.

In 2016, more than 61% of Arlington's energy use was connected to building sector consumption – distributed across commercial and multifamily buildings, single-family homes, workplaces, and shopping areas. Of that, 35% of Arlington's greenhouse gas emissions (GHG) came from commercial sector real estate. On average, only 2-4% building stock is renovated each year nationally, but current data suggests that Arlington's rate may be higher. That means by 2050 all or most of Arlington's existing residential and non-residential buildings will likely have been either renovated or replaced.

The CEP also states that in order to achieve that reduction Arlington must "Promote and incentivize new buildings to be designed, constructed, and operated more efficiently than is required by code." It is not just about replacing our buildings, it is replacing or renovating them using up-to-date standards. Virginia sets a state code for building efficiency through adoption of international standards. Currently Virginia has adopted the [2015 International Energy Conservation Code \(IECC\)](#) for buildings, with amendments (the current IECC standard is 2018).

Because Virginia is a [Dillon Rule](#) state, however, Arlington cannot *require* builders to build above that code—so another tool is needed. In Arlington, for commercial real estate, that is the Green Building Incentive Program.

This program is Arlington's primary tool to encourage developers to reduce energy use and GHG emissions. For participating projects, the program offers a small amount of density in exchange for LEED Version 4 Silver or higher certification. (Note: LEED is **L**eadership in **E**nergy and **E**nvironmental **D**esign, a program developed and maintained by the U.S. Green Business Council. It is the most widely accepted green building rating system.) Additionally, projects must also qualify in the following ways:

- Post-occupancy Energy Star certification for all office buildings. Multi-family residential buildings are encouraged to get Energy Star certification as well (the

program offers a small amount of additional density as an incentive to achieve Energy Star certification)

- Multi-family buildings are required to install Energy Star appliances and WaterSense fixtures, LEDs, and Energy Star light fixtures.
- Ten years of energy reporting is required for all participating buildings

Experience tells us that multi-family projects do not do LEED certification without the incentive. The bonus density awarded is on average 7% of the entire building's gross floor area and varies depending on the size of the site area. The amount of density is usually less than one floor.

Arlington's program also includes an incentive for Net Zero Energy certification. To achieve Net Zero certification, the project must generate as much energy onsite as the building uses, thus incentivizing a very low energy use building. For large high-rise buildings, the roof area isn't big enough to generate that much electricity. Thus, Arlington proposes to add the Zero Carbon certification to its program; this would allow developers to build a very low energy use building and generate the necessary electricity through renewables off-site.

An incentive program is critical because, as stated above, Virginia is a Dillon Rule state and Arlington is not permitted to require energy efficiency standards above the state's building code which the Virginia Board of Housing and Community Development (BHCD) lags on updating to reflect the latest standards. In addition, the cost energy per kW is relatively low (Dominion Energy makes a profit off riders on your bill rather than just your rate), so the payback period on energy efficiency investments is not as favorable.

If the builder will occupy the building, as Amazon is anticipated to do for its "National Landing" location, planning for low-energy costs over the life of the facility makes sense. If the developer is building a multi-use facility that others will occupy and pay the utilities, however, the incentive to build to LEED standard may be less, unless a small incentive improves the bottom-line for a commercial builder, make their property more competitive in the marketplace and makes building 'green' more likely.

Forty-six projects have participated in the program to date.

Thanks to Joan Kelsch and Jessica Abralind of Arlington's Green Building Incentive Program for their help in preparing this article. For more information visit:

<https://environment.arlingtonva.us/energy/green-building/>

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