Existing Buildings Pathway Comments and Responses

Themes:

- Suggestions
    - Inclusion of Electric Heat Pump Systems: Include electric heat pumps, geothermal, and VRF technologies.
    - Alternative Metrics for Awards: Allow site EUI reduction as an alternative to ENERGY STAR certification.
    - Certificate of Occupancy Requirements: Differentiate between whole buildings and individual floors.
    - Higher Energy Efficiency Targets: Set more ambitious targets aligning with County's CEP.
    - Eligibility of Optimization Measures: Clarify eligibility for optimization measures.
    - Documentation of Energy Audits: Clarify documentation requirements for energy audits.
    - Higher EUI Reduction Threshold: Increase the EUI reduction threshold.
    - Alignment of ENERGY STAR Ratings with Electrification: Expand site EUI reduction award pathway.
    - Encouragement of Electrification: Provide awards for electrical design drawings.
    - Incorporation of Lighting Standards: Include lighting standards from Appendix 1.

NOTE: The numbered comments (e.g., #058) refer to the comment number in the Draft Policy document.

General Comments

#048

Posted on 10/23/2024 at 5:44pm [Comment ID: 8619]

Suggestion

Agree: 0, Disagree: 0

Why does this pathway not include installation of electric heat pump systems for HVAC and hot water. Heat pumps, geothermal and VRF technologies are highly energy efficient (250 percent or higher) but a crucial to phasing out onsite combustion of fossil fuels, which is essential to addressing the underlying cause of the climate crisis.

Response

We expect that these retrofit measures, including electric heat pumps systems and VRF technologies, will be among those undertaken by program participants. We will highlight their carbon- and energy-saving benefits in our educational series that will accompany the roll-out of the 2025 updated GBIP.

#049

Posted on 11/14/2024 at 2:57pm [Comment ID: 8723]

Suggestion

Agree: 0, Disagree: 0

While using ENERGY STAR certification is an easily-acceptable metric, using it as the sole mechanic for accessing the award accidentally disincentivizes poor-performing buildings (with low ENERGY STAR scores) from pursuing deeper retrofit work. Allowing a site EUI reduction as an alternative pathway to reaching the award closes this gap.

Response

During the pilot phase of this program and in the six-month roll-out period, we will seek to target several very low-performing existing buildings to explore and implement retrofits that will enable them to reach ENERGY STAR certification. We will subsequently highlight these as case studies of the costs and benefits of significant

performance improvement. Please see the discussion of site vs. source energy in other responses to public comment.

#050
Posted on 11/14/2024 at 2:57pm [Comment ID: 8722]
Suggestion
Agree: 0, Disagree: 0
We suggest revising the certificate of occupancy requirement to delineate between Certificate of Occupancies for whole buildings instead of individual floors. The requirement of "after final Certificate of Occupancy" doesn't delineate between these two items, but in practice this requirement as written could strike most properties that underwent a partial renovation from being able to access this award, which significantly limits the applicability of the award.
Response
The incentive is directed towards base building systems retrofits to be undertaken by building owners, rather than retrofits for leased/tenanted spaces.

#051
Posted on 10/23/2024 at 5:39pm [Comment ID: 8618]
Suggestion
Agree: 0, Disagree: 0
It seems to me that this pathway is setting pretty minimal energy efficiency targets for existing buildings—buildings undergoing renovation should be able to achieve more that 10 percent or just meet Energy Star certification levels. A ambitious but reasonable EUI target that aligns with the County's CEP targets for building energy use reductions might be more straightforward. Based on the calculations the incentives offered would be more than the other pathways without achieving as much in GHG reductions.
Response
Please note that the 10% reduction applies to buildings that are already high performers, with ENERGY STAR scores of 75 or above. The requirement is that buildings achieve "ENERGY STAR certification or a 10% reduction in energy use intensity, **whichever yields the higher ENERGY STAR score**" (emphasis added), with the goal of incentivizing not only poor performers, but high performers that wish to improve further. In general we believe these targets represent "reasonable goals" in the difficult existing buildings sector and hope that market uptake will result. During the duration of this pilot, we will monitor and summarize the carbon and energy use reductions and share these publicly, and depending on the results will look to modify the targets as necessary.

#052
Posted on 11/14/2024 at 2:58pm [Comment ID: 8726]
Question
Agree: 0, Disagree: 0
The examples included in the text are examples of physical retrofit work—in effect, installing something that wasn't there before. It isn't clear if optimization measures that result in a 10% site EUI savings or ENERGY STAR certification would be eligible for the award. Will they?
Response
If the retrofit measures undertaken result in either ENERGY STAR certification or a 10% reduction in energy use intensity, they will yield the incentive award, which is performance-based using data from one year's energy use post-retrofit. Each project team will need to analyze and decide which retrofit measures will be most effective in reaching this goal.

#053
Posted on 11/14/2024 at 2:58pm [Comment ID: 8727]
Question

Agree: 0, Disagree: 0
Do the results of an energy audit work to document existing systems? How will scopes of work need to be documented? Clarification would be helpful either within the GBIP or as a separate document.
Response
We are planning to include sessions on existing building audits and retrofits in our educational series that will roll out during the six-month phase-in period of the GBIP update and will include details of this important topic then. Typically, energy audits, especially the various levels of ASHRAE audits, exist for the purpose of documenting and analyzing the performance of existing building systems.

#054
Posted on 11/17/2024 at 1:25pm [Comment ID: 8760]
Suggestion
Agree: 0, Disagree: 0
Consider making the threshold a 15% or 20% reduction in EUI. A 10% reduction seems low considering the amount of incentive being offered.
Response
The 10% reduction applies to buildings that are already high performers, with ENERGY STAR scores of 75 or above. The requirement is that buildings achieve "ENERGY STAR certification or a 10% reduction in energy use intensity, **whichever yields the higher ENERGY STAR score**" (emphasis added). The goal is to incentivize not only poor performers, but high performers that wish to improve further.

#055
Posted on 11/14/2024 at 2:58pm [Comment ID: 8724]
Suggestion
Agree: 0, Disagree: 0
ENERGY STAR ratings don't always align with deeper retrofit projects such as electrification. Electrification typically results in substantial site energy use intensity savings. However, in order to realize source energy savings (which is what ENERGY STAR ratings are based on), electrification projects need to overcome the difference in site-to-source energy use differences between electricity and gas. This is also solved by expanding the applicability of the site EUI reduction award pathway.
Response
It is not reasonable to decouple individual building performance from the carbon intensity of the electric grid. Indeed, projects that seek to electrify in eGrid regions like ours -- where electricity is generated primarily from fossil-fuels -- will need to work somewhat harder to achieve ENERGY STAR certification, which is based on source energy use. Ssource energy is the essential metric to gauge decarbonization at a larger scale.

#056
Posted on 11/14/2024 at 2:58pm [Comment ID: 8725]
Suggestion
Agree: 0, Disagree: 0
in addition, electrification is frequently a long, intensive process that begins with developing electrical design drawings and submitting them to Dominion for consideration. Encouraging electrification as a retrofit could be done by providing an award for developing and submitting these drawings.
Response
We will consider adding a modest grant incentive to allow building teams to investigate the costs and benefits of electrification. This would parallel the feasibility incentive grant we propose in the Climate Adaptation Pathway for the pursuit of PHIUS certification.

#057
Posted on 11/01/2024 at 11:41am [Comment ID: 8677]

Agree: 0, Disagree: 0
Consider including incorporation of the lighting standards from Appendix 1 as part of this incentive.
Response
We will consider incorporating this as a future program update, keeping the immediate emphasis on the need to retrofit for overall energy and carbon reduction. In addition, we will include a discussion of the performance benefits of energy-efficient lamping in our upcoming educational sessions on the Existing Buildings Pathway while encouraging existing buildings to retrofit their existing exterior lighting systems.