# FAQ: 2015 ENTERPRISE GREEN COMMUNITIES CRITERIA

*Last updated March 06, 2019*

## SECTION 1: INTEGRATIVE DESIGN

### CRITERION 1.3A RESILIENT COMMUNITIES: DESIGN FOR RESILIENCE

*Mandatory*

**Q:** How does the *New York City Overlay of the Enterprise Green Communities Criteria (NYC Overlay)* requirement for projects to achieve at least 3 points through Criterion 4.2 affect the project's compliance with Criterion 1.3a?

**A:** The intent of Criterion 1.3a is for project teams to consider how hazards affect their projects and residents and to implement a measure above and beyond any mandatory items in the 2015 Criteria that would add value to the project in terms of the hazard identified. As the *NYC Overlay* requires that all projects achieve at least 3 points through Criterion 4.2, projects would need to achieve at least 6 points through Criterion 4.2 if this were the optional criterion selected as the compliance pathway for Criterion 1.3a.

**Q:** What Design for Resilience resources are available?

**A**: The Resources section of Criterion 1.3b includes many references that may be useful to project teams pursuing Criterion 1.3a. The Enterprise Green Communities Ready to Respond Toolkit can help project teams complete Criterion 1.3a, and provide further guidance on developing comprehensive plans to protect buildings, ensure continuity of housing service, and engage residents on disaster preparedness.

## SECTION 2: LOCATION + NEIGHBORHOOD FABRIC

### CRITERION 2.8 ACCESS TO PUBLIC TRANSPORTATION- REQUIREMENTS

*Optional: 8 or 10 points*

**Q:** With 60 or more transit rides per workday, what constitutes a "ride"?

**A:** A "ride" is an opportunity to take a transportation line or route from a stop. For example, if your site has one bus stop that services two bus routes that each run service every 30 minutes from 6 am to 9 pm, your project would have:

> Route 1: 15 hours x 2 stops per hour = 30 "rides"
> Route 2: 15 hours x 2 stops per hour = 30 "rides"
> SUM: 60 rides / workday

### CRITERION 2.14: LOCAL ECONOMIC DEVELOPMENT AND COMMUNITY WEALTH CREATION

*Optional: 6 points maximum*

**Q**: How does Green Communities define "local hiring" under Option 1: Local Hiring Preference?

**A**:  For the context of Criterion 2.14, "local hiring" is defined as hiring any individual who resides within 10 miles of the project site.

**Q**: Under Option 2: Local Hiring, what is meant by 20% local employment?
**A**: To determine the percentage of local employment, calculate:

$$\frac{\text{Total \# of hours worked by local contractors}}{\text{Total \# of hours on the project}} \quad \text{x} \quad 100 \quad = \quad \text{\% of local employment}$$

*Note: If sweat equity hours were used to complete some of the labor for the project, those hours are eligible and should be included in the above calculation*

**Q**: If our project is using funding from US Department of Housing and Urban Development's Section 3 program, would it be eligible for optional points under Option 3: Physical Space for Business, Nonprofits, and/or Skill and Workforce Education?
**A**: Yes, so long as the education, training or employment met the Requirements of Criterion 2.14, then they would be eligible for optional points. See: http://www.hud.gov/offices/fheo/section3/Section3.pdf and http://portal.hud.gov/hudportal/documents/huddoc?id=11secfaqs.pdf for more information on HUD's Section 3 program.

## SECTION 4: WATER CONSERVATION

### CRITERION 4.2 ADVANCED WATER CONSERVATION
*Optional: 6 points maximum*

**Q:** Does the *New York City Overlay of the Enterprise Green Communities Criteria* requirement for projects to achieve at least 3 points through Criterion 4.2 affect the project's compliance with Criterion 1.3a?
**A:** Yes.  See FAQ for Criterion 1.3a Resilient Communities: Design for Resilience.

### CRITERION 4.3 LEAKS & WATER METERING
Optional: 4 points

**Q:** I would like to monitor the water consumption of my multifamily property in a nuanced way, to be able to more quickly address leaks.  Where do I start?

**A:**  Many options exist for you, both in terms of whether you decide to monitor the water consumption of each fixture in the building, each dwelling unit's water usage, or each riser's usage.  What is critical is tracking this information in a standardized way, so that you may be able to determine when a leak exists.  At the least, separately meter the cold water consumption of the dwelling units as well as the water consumption of any common project laundry facilities, boiler makeup water, outdoor water, and water consumption in any commercial spaces.

Equipment
All the monitoring system components are off the shelf.  In-line meters should meet AWWA standards and include a pulse output (1 pulse per gallon is desirable).  More critical is meter sizing; oversizing is

common.  A 2-inch riser, for example, does not require a 2-inch meter.  Not only would a 2-inch meter be much more expensive, but it would miss the very low flows it is supposed to detect.  Most risers up to 2 inches in diameter in 6-story or shorter buildings can be handled by a ¾-inch meter.

Some vendors package water monitors with a remote data monitoring system.  Other vendors offer only monitors or only remote data monitoring systems; these may be paired.  And remote data monitoring systems come in a variety of forms: some are wireless and others require that they be hard-wired.  With either type, typically the water consumption data is sent from each meter/monitor to a datalogger inside the building, which passes it on to a website where it can be reviewed and downloaded.  In cases where staff do not have time to review data for dozens of submeters, the website can be programmed to send out a text or email alarm when a leak is suspected.  Because it is easy to set up alarms, it is not necessary to dedicate an employee or outside firm to monitor the water data, but it is desirable and should be considered.  Many firms now monitor other building functions, so adding water to the list should not be difficult.

Installation
At all times, follow manufacturer installation instructions.  In-line meters should be installed by a licensed plumber.  When possible, use a press-fit pipe joining system instead of sweated joints for these installations.  Such a system saves labor costs and permits otherwise impossible installations.  Remote data-gathering systems are often installed by a controls or telecom contractor or, more expensively, by a licensed electrician.

The most crucial factor is to install every meter so it can be easily accessed for repairs or for manual reading (should that become necessary) – meters in cramped or inaccessible locations frequently end up ignored or forgotten. Experience shows that domestic water systems frequently include long pipe runs without any shutoff capability, which makes future repairs more difficult and/or disruptive.  A few extra well-placed isolation valves will pay large dividends over time.

Similarly, in new construction in particular, designers should be encouraged to make the pipes more accessible than they usually are, either by exposing them or placing them behind an easily-removable access door or chase.  Pipes in an easily-removable chase would be easier to repair and inspect and might even be isolatable enough to eliminate water damage from a pipe burst or joint leak.  Experience also shows that basements frequently lack electrical outlets.  With the increase in telecom, internet and cable TV installations and a likely rise in data-gathering systems like the one described here, strategically-located additional outlets would be quite valuable.

Cost
Installed cost will vary widely depending on meter size and location, new construction vs. retrofit, wireless vs. wired data gathering, local labor costs and other factors.  The cost per installed meter, including data system, is likely to be in the range of $500 to $2,000 per meter.  For instance, meters cost ~$100/ea, data loggers cost ~$200/ea and may serve up to 4 meters each, and a web-based dashboard system may cost ~$30/month.  Savings, at $6,700/year for fixing a 1gpm leak, can exceed cost. In a 2015 pilot across 26 NYC buildings, annual savings per building exceeded $18,000, which also exceeded the cost of installation.

## SECTION 5: ENERGY EFFICIENCY

### CRITERION 5.1a, 5.1b, 5.1c, and 5.1d BUILDING PERFORMANCE STANDARD
*Mandatory*

**Q:** Which version (a, b, c, OR d) should my project follow?
**A:** New construction properties either will be subject to option a or b, based on their building typology. Existing properties will be subject to option c or d, based on their building typology.

In general, new construction properties with one or two units should follow option a, new construction properties with three or more units should follow option b, retrofits of existing buildings with 1-4 units should follow option c, and retrofits of existing buildings with more than 4 units should follow option d.  For full specifics of new construction project eligibility, refer to the ENERGY STAR decision tree: https://www.energystar.gov/mfnc

### CRITERION 5.1b BUILDING PERFORMANCE STANDARD
*Mandatory*

**Q**: What building performance testing and verification is needed to satisfy Criterion 5.1b option 2?
**A***: Refer to the EA Prerequisite 1 LEED for Homes and Multifamily Mid-Rise v2008 (update to the EPA Testing and Verification Protocols Prerequisite):*
https://www.usgbc.org/sites/default/files/Energy%20and%20Atmosphere%20p%201%20Alternative%20Compliance%20Path%20for%20Mid-Rise%202010.pdf

The LEED for Homes and Multifamily Mid-Rise EA Prerequisite 1 changed on July 1, 2016, adding a Compartmentalization section of requirements.  Projects submitting for Enterprise Green Communities Prebuild approval after July 1, 2016 that are following Criterion 5.1b option 2 must use this updated guidance.  Projects that submitted for Enterprise Green Communities Prebuild approval before July 1, 2016 are not affected.

### CRITERION 5.2b ADVANCED CERTIFICATION: NEARING NET ZERO
*Optional: 12 points*

**Q**: In an instance where a project team was pursuing certification with either PHI or PHIUS at the Prebuild stage of Certification and throughout construction, but was unable to earn final PHI or PHIUS+ Certification, can my project still certify to Enterprise Green Communities?
**A**: In some instances, yes.  To be evaluated for consideration, the project team must submit a waiver request within their Postbuild Certification application for an alternative approach to compliance with Criterion 5.1 Building Performance Standard.  The project will not be eligible for optional points under Criterion 5.2 Nearing Net Zero.  In the waiver request include:

1. Demonstration that the project's performance meets or exceeds our efficiency requirement of Criterion 5.1a-d: Building Performance Standard (version a, b, c, or d of Criterion 5.1 as appropriate for construction typology).
2. Completed PHI/PHIUS+ Checklist Workbook
3. Evidence that the HVAC system has been balanced and commissioned per the recommendations of the project's Passive House rater.

**Q:** If pursuing certification with PHIUS, Living Building Challenge, and/or DOE Zero Energy Ready Home, are the mandatory supplemental documents per Criterion 5.1 Building Performance Standard also required?

**A:** No.  If a project supplies the supplemental documents required of Criterion 5.2b as part of their Prebuild application and those are approved, additional documentation for Criterion 5.1 is not necessary.  Likewise, at the time of Postbuild submission, proof of certification for the program selected through Criterion 5.2b will suffice for compliance with both Criterion 5.1 and Criterion 5.2b.  If the project is unable to demonstrate compliance with Criterion 5.2b at Postbuild, the project will not be eligible for those optional points and the project must demonstrate compliance with Criterion 5.1 in order to be eligible for Enterprise Green Communities certification.

## CRITERION 5.5 LIGHTING
*Mandatory*

**Q:** Do the general requirements apply to the area specific lighting (Common Areas, Emergency Lighting, and Exterior Lighting)?

**A:** Yes; the general requirements apply to all permanently installed fixtures.

**Q**: Is there a process available for obtaining approval to install lighting fixtures that are not Dark Sky approved, but that meet the Dark Sky technical specifications in a project?

**A:** Yes.  The 2015 Criteria requires that all exterior lighting is Dark Sky approved, outside of lighting required for code and demonstrated safety concerns. From our work with experts in the lighting industry, we understand Dark Sky to be the most comprehensive certification addressing exterior lighting and light pollution that's available.

We are aware that exterior light fixtures meeting the technical specifications of Dark Sky, but that have not been certified by the International Dark Sky Association, exist. Project teams seeking to install this type of fixture may submit a request for a Dark Sky waiver through the certification portal.  In order to be considered for approval, demonstrate that the proposed fixtures exhibit the following specifications:

- Luminaires must be fully shielded emitting no light above 90 degrees (with the exclusion of incidental light reflecting from fixture housing, mounts, and pole). The luminaire's mounting hardware shall not permit mounting in any configuration other than those maintaining full shielding. Non-residential luminaires shall be rated U0.

- Fixture shall have no sag or drop lenses, side light panels, up-light panels.

- Fixture shall employ warm-toned (3000K and lower) white light sources or may employ amber light sources or filtered LED light sources.

Refer to the International Dark Sky Association Fixture Seal of Approval for additional information: https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/apply-fsa/

Waiver requests will be reviewed per our standard protocol. Fixtures that demonstrably meet the intent of the Dark Sky requirements for Criterion 5.5, by meeting the technical specifications above, may be eligible for a waiver approval.

## CRITERION 5.6 ELECTRICTY METER
*Mandatory*

**Q:** Does this criterion require that tenants pay their own electric bills?
**A:** No.  And rather than using electricity meters, projects may install electricity monitors which provide readings of electricity for each individual dwelling unit as an acceptable strategy for this criterion.

## CRITERION 5.7a PHOTOVOLTAIC / SOLAR HOR WATER READY
*Optional: 4 points*

**Q**: How would I demonstrate that my project is Photovoltaic (PV) or Solar Hot Water (SHW) Ready to earn optional points under Criterion 5.7a?
**A**: To earn optional points under Criterion 5.7a, you must meet the south-facing exposure requirements and the roof being scoped for installation must have a useful life of at least 20 years (see the 2015 Criteria, pp 89 for more detail). If both conditions are met, project can earn optional points by completing either pathway:

PV ready (adapted from the Environmental Protection Agency's {EPA} *Renewable Energy Ready Home Solar Photovoltaic Specification, Checklist, and Guide. For additional guidance and installation diagrams, consult the above guide online here.*)

- Install and label a 4' x 4' plywood panel area for mounting an inverter and balance of system components.
- Install a 1" metal conduit for the DC wire run from the designated array location to the designated inverter location (cap and label both ends).
- Install a 1" metal conduit from designated inverter location to electrical service panel (cap and label both ends).
- Install and label a 70-amp dual pole circuit breaker in the electrical service panel for use by the PV system (label the service panel).
- Provide architectural drawing and riser diagram of solar PV system components.

SHW Ready (adapted from the Environmental Protection Agency's (EPA) *Renewable Energy Ready Home Solar Water Heating Specification, Checklist, and Guide. For additional guidance and installation diagrams, consult the above guide online here.*)

- Dedicate and label a 3' x 3' x 7'area in the utility room adjacent to the existing water heater for a solar hot water tank.
- Dedicate and label a 3' x 2' plywood panel area adjacent to the solar hot water tank for the balance of system components/pumping package.
- Install an electrical outlet within 6' of the designated wall area.
- Install a solar bypass valve on the cold water feed of the water heater (cap and label both ends).
- Install a single 4" chase or 2–2"chases from utility room to the attic space below designated array location (cap and label both ends).
- Provide architectural drawing and plumbing riser diagram of SWH system components.

## SECTION 6: MATERIALS

### CRITERION 6.10 ASTHMAGEN-FREE MATERIALS
*Optional: 12 points maximum*

**Q:** Throughout criterion 6.10, phthalates in vinyl floor and wall coverings are specifically called out as materials to avoid. Can you please clarify the use of the term "phthalate"?
**A:** The use of the term "phthalate" is specifically referencing ortho-phthalates. Products which include Dioctyl terephthalate (DOTP) are eligible for optional points under 6.10.

**Q:** If a project is not installing the products categorically identified in this criterion (insulation, flooring, wall coverings, or composite wood) is it able to gain optional points?
**A:** No. Optional points are only applicable if a product category is included in the project and the selected type of that product which is installed meets the requirements of Criterion 6.10. For instance, points are only available through the insulation option of this criterion for a project that does include insulation and the insulation is neither spray polyurethane foam nor formaldehyde-containing fiberglass batts. Similarly, points are only available through the wall coverings option of this criterion for a project that does include either wallpaper or site-applied high-performance coatings and the wallpaper is not made from vinyl with phthalates and the site-applied high-performance coatings are not made with epoxy nor are they polyurethane based.

**Q:** What resources are available for affordable housing project teams to select healthy building materials?
**A:** HomeFree, a project of the Healthy Building Network, provides a web-based product library of healthy building materials as well as a forum for affordable housing leaders who are motivated to improve human health by using less toxic building materials:
https://homefree.healthybuilding.net/products

### CRITERION 6.11 REDUCED HEAT-ISLAND EFFECT: ROOFING
*Optional: 5 points*

**Q:** Are main and secondary roofs/terraces exempt from this criterion, if these spaces are finished and accessible to residents?
**A:** Yes. If a roof space is designed and installed in such a way that intends regular resident access and use, that space would be considered a hardscaped area and subject to Criterion 3.7 Reducing Heat-Island Effect: Paving and exempt from Criterion 6.11.

## SECTION 7: HEALTHY LIVING ENVIRONMENT

### CRITERION 7.1 VENTILATION
*Mandatory: New Construction and Substantial Rehab*
*Optional: Moderate Rehab | 12 points maximum*

**Q:** Are bathroom fans allowed to run continuously, without a timer/sensor?
**A:** Yes, the intent of the timer/sensor portion of the requirement is to ensure that the fan does run on an as-needed basis.  A continuously running fan would also satisfy this intent.  Note that all other ventilation requirements must also be satisfied.

**Q:** How does a project satisfy the kitchen exhaust requirements under **Criterion 7.1 Ventilation** if they are also achieving optional points under **Criterion 5.2b Advanced Certification: Nearing Net Zero** by certifying to the PHIUS+ program?
**A**: Projects that achieve certification with Passive House Institute (PHI) or Passive House Institute United States (PHIUS+) are permitted to follow the Passive House ventilation requirements as an alternative to meeting the Criterion 7.1 ventilation requirements as they relate to kitchens, so long as there are no combustion fueled appliances within the dwelling unit and at minimum there is a continuous kitchen exhaust rate of 25 CFM per 2009 IRC Table M1507.3.  This is also in compliance with ENERGY STAR, see ENERGY STAR Certified Homes Version 3 / 3.1 Rater Field Checklist item 8.1.  This alternative approach to Criterion 7.1 for Green Communities will need to be noted and explained in full during both the Prebuild and Postbuild steps of Enterprise Green Communities Certification by completing a waiver request within the online certification portal.

## CRITERION 7.8 RADON MITIGATION
*Mandatory: New Construction and Substantial Rehab*

**Q:** Is there Radon Mitigation guidance for new construction multi-family projects?
**A:** Yes, the criterion requirement for new construction projects references the ANSI-AARST standard relative to one and two-family dwellings and townhomes.  However, since the time of publication of our 2015 Criteria, an ANSI-AARST standard (CC-1000) has been published for larger buildings, which should be followed for buildings of this construction type: https://aarst-nrpp.com/wp/store/rrnc-for-larger-buildings-cc-1000/

## CRITERION 7.12 ACTIVE DESIGN: PROMOTING PHYSICAL ACTIVITY WITHIN THE BUILDING
*Mandatory*

**Q:** In Criterion 7.12, how does a project team comply with Option 1: Stairs if the building already has stairs (if the building is a rehab) or if in the design of a new construction building the location of stairs in the floorplan is unable to be changed?
**A:** Teams working on projects that already include stairs should focus on the portions of the requirement that encourage residents to use those stairs: through point-of-decision signage that motivates residents to use the stairs rather than the elevator and through high quality stairway design features and finishes.  The intent of this option is to provide a way for people in the building to regularly take the stairs rather than an elevator.  This ultimately requires that the stairs are inviting—safe, clean, and an intuitively good choice.

Consider:
- Stair prompt signage should be visible from the path of travel that is closest to the main entrance of a building or floor.
- For optimal visibility, place stair prompt signage on the occupied side of the door leading to a public access stairway. Consider mounting signs on the wall surface directly adjacent to the

latch-side of the door. If the wall surface is too narrow to accommodate the sign, place signs on the adjacent perpendicular wall. The top of the sign should be no higher than 5 feet above the finished floor.

- Place stair prompt signage at elevators; mount signs on the wall surface directly adjacent to elevator call stations. When there are two or more elevators adjacent to one another, mount signs between these elevators.
- The top of the sign should be no higher than 5 feet above the finished floor.
- If the entrance to the stair is not visible from the elevator waiting area, use direction signage to link the stair to the elevator lobby.
- Create point-of-decision signage materials of high quality and durable materials, consistent with the building's wayfinding and signage program.
- Refer to the RESOURCES listed for this criterion in the 2015 Criteria Manual as well as sample signage found online here: http://www.enterprisecommunity.org/resources/2015-criteria-resident-manual-supplements-signage-trash-stairs-dog-waste-13398

**Q:** How should project teams respond to this criterion when there is no feasible means to design the property to encourage greater frequency or duration of physical activity within the building?

**A:** As noted in the Addenda to the 2015 Criteria, single-family properties are exempt from Option 1: Stairs and from Option 2: Pathways of this criterion, as there is not typically an opportunity to encourage more physical activity within these properties through design features.

Other property types, particularly those multifamily buildings with shared common spaces, do have an opportunity to make an impact on resident health by increasing physical activity and should follow the criterion in full.  Multifamily properties that have fully considered the requirements of the criterion and the recommendations in the previous Q/A of this FAQ and still do not identify opportunities to comply may select "n/a" as an implementation option in their Prebuild certification application and provide additional text within the certification portal for consideration by the Enterprise certification review team.