Energy Benchmarks to meet Built Green Requirements

Single-Family

Project Energy Requirements – 2017 update (for projects enrolled after 1 August 2017)

- **3-Star:** Modeled to be at least 10% more efficient than WSEC 2015
- **4-Star:** Modeled to be at least 20% more efficient than WSEC 2015
- **5-Star:** Modeled to be at least 30% more efficient than WSEC 2015
- **Emerald Star:** Independently verified to be net zero energy on an annual basis

Modeling Path Requirements

- **Protocol:** Modeler must use the REM/Rate UDRHs developed by NEEA. Built Green can provide these if needed.
- **Tool:** REM/Rate or REM/Design
- **Project:** Single-family and townhome projects of four stories or under may be modeled with REM/Rate or REM/Design. If a project does not meet this specification, consult with Program Manager.

Multifamily

Project Energy Requirements

- **3-Star:** Modeled to be at least 10% more efficient than WSEC cycle under which the project was permitted OR achieves additional credits in Section R406 (two credits) or C406 (two options) above the WSEC requirements
- **4-Star:** Modeled to be at least 20% more efficient than WSEC cycle under which the project was permitted
- **5-Star:** Modeled to be at least 30% more efficient than WSEC cycle under which the project was permitted
- **Emerald Star:** Independently verified to be net zero energy on an annual basis

Modeling Path Requirements

- Projects of three or fewer stories above grade
  - **Tool:** Modeler may use eQuest, REM/Rate, EnergyGauge, or TREAT.
  - **Protocol:** Modeler must use the Built Green Multifamily Performance Rating Analysis Guidelines based on WSEC 2015 (eQuest) OR RESNET's REM/Rate protocol for multifamily. There are two Built Green guidelines for eQuest based on the WSEC 2015 baselines. Both are accepted by Built Green but cities or utilities may require a certain protocol for an incentive basis. Please check to ensure you are using an approved protocol with them if the project is obtaining an incentive.
- Projects of four stories above grade
  - **Tool:** Modeler must use eQuest. Modeler may use REM/Rate *only if*
    - Dwelling units occupy 80% or more of the building's occupiable square

footage, AND
- Space and water heating is not centralized nor is for commercial application; units have individual or bundled (to up to four units) heating that is accessible by verifiers, AND
- Building is wood framed or uses continuous insulation strategies such as SIPs, ICFs, or similar.
  - o **Protocol:** Modeler must use the Built Green Multifamily Performance Rating Analysis Guidelines based on WSEC 2015 (eQuest) OR OR RESNET's REM/Rate protocol for multifamily. There are two Built Green guidelines for eQuest based on the WSEC 2015 baselines. Both are accepted by Built Green but cities or utilities may require a certain protocol for an incentive basis. Please check to ensure you are using an approved protocol with them if the project is obtaining an incentive.
- Projects of five or more stories above grade
  - o **Tool:** Modeler must use eQuest.
  - o **Protocol:** Modeler must use the Built Green Multifamily Performance Rating Analysis Guidelines based on WSEC 2012. There are two Built Green guidelines for eQuest based on the WSEC 2015 baselines. Both are accepted by Built Green but cities or utilities may require a certain protocol for an incentive basis. Please check to ensure you are using an approved protocol with them if the project is obtaining an incentive.

Prescriptive Approach
- **Protocol:** Verifiers may verify the energy requirement under checklist action item 3-2 of the multi-family checklist in lieu of the modeling path for 3-Star projects only. See the Built Green Multifamily Handbook for details.

Remodel
Project Energy Requirements
- **3-Star:** Modeled to at least meet WSEC 2015
- **4-Star:** Modeled to be at least 15% more efficient than WSEC 2015
- **5-Star:** Modeled to be at least 30% more efficient than WSEC 2015 OR alternate requirements path as listed in checklist

Modeling Path Requirements
- **Protocol:** Modeler must use the REM/Rate UDRHs developed by NEEA. Built Green can provide these if needed.
- **Tool:** REM/Rate or REM/Design

Please Note: If you would like to use a modeling software not referenced in this document, contact the Built Green Program Manager.