

To ENERGY STAR Multifamily High Rise Stakeholders:

On February 25, 2013, EPA released Version 1.2 of the Performance Path Calculator and Version 1.4 of the Testing and Verification Worksheets. The summary of updates is included below.

### **Performance Path Calculator, Version 1.2 - Summary of Updates**

1. Basic Info Worksheet: Added two ASHRAE space types (Lounge/Recreation and Exercise Area).
2. Reporting Summary Worksheet: Minor updates.
3. LEED-H MR Form: Removed.
4. Water Savings Worksheet: Updated calculation for number of occupants, which will increase the demand and savings from low-flow fixtures.
5. In-Unit Lighting Worksheet: Updated to allow users to assume a greater square footage illuminated by hard-wired fixtures.
6. Interior Lighting Worksheet: Updated to allow Prescriptive Path users to compare to 90.1-2010 and to calculate 80% ENERGY STAR fixtures. Also, added two ASHRAE space types (Lounge/Recreation and Exercise Area) and provided the reduced W/sf for spaces if using automatic controls. Simulation Guidelines will be corrected to allow 10% credit in non-apartment spaces except conference/meeting rooms.
7. EIR for PTAC and PTHP: Updated calculations.

### **T&V Worksheets, Version 1.4 - Summary of Updates**

1. Clarified that ventilation duct tightness test is only for central exhaust serving apartments
2. Clarified installation requirement for slab-on-grade insulation to include the slab edge in the Prescriptive Path
3. Revised calculator for ASHRAE 62.2-2007 for Whole House Ventilation to adjust maximum ventilation allowed in the Prescriptive Path to be based on Table 4.1a
4. Clarifications of the use of "Must", "Should" or "Shall", where "Must" and "Shall" indicate program requirements, and "Should" indicates recommendations, but not requirements.
  - a. 1.1 - ENERGY STAR qualification for appliances must be verified through the ENERGY STAR website
  - b. 2.1, 2.2 – DHW equipment efficiency must be verified through AHRI ratings. If not available, OEM-provided performance data must be used, in compliance with ASHRAE 90.1-2007, Section 6.4.1.4. If following the Prescriptive Path and ENERGY STAR qualification is required, it must be verified through the ENERGY STAR website.
  - c. 2.1, 2.2, 5.1, 5.2, 5.3, 5.4, 7.1, 8.2 – The requirement for staff training and delivery of equipment manuals is a recommendation and not mandatory.
  - d. 3.1, 3.2, 3.3, 4.1 – TESRC checklist Sections 3 and 5 are recommended but not required.
  - e. 3.5, 8.1 – Weather Stripping
    1. Weather-stripping is mandatory at doors between conditioned spaces and the exterior; unconditioned spaces; and spaces vented to the outside.
    2. Weather-stripping is recommended, but not required, at doors between corridors and stairwells; between apartments and corridors; and doors leading to mechanical rooms.
    3. Weather-stripping at mandatory locations shall be installed with a rigid fastener and replaceable foam gasket specified for durability and less maintenance.
  - f. 5.1, 5.3 – Heating equipment efficiency must be verified through AHRI ratings. If not available, OEM-provided performance data must be used, in compliance with ASHRAE 90.1-2007, Section 6.4.1.4. If following the Prescriptive Path and ENERGY STAR qualification is required, it must be verified through the ENERGY STAR website.

- g. 5.2, 5.4 – Cooling equipment efficiency must be verified through AHRI ratings. If not available, OEM-provided performance data must be used, in compliance with ASHRAE 90.1-2007, Section 6.4.1.4. If following the Prescriptive Path and ENERGY STAR qualification is required, it must be verified through the ENERGY STAR website.
- h. 8.1 – Preliminary blower door tests are a recommendation but not required.
- i. 8.2 - All take offs, branch duct work, bottom caps and permanent roof curbs must be installed prior to testing.
- j. 8.2 –If allowed by local code, smoke vents are required per ASHRAE 90.1-2007, Section 6.4.3.4.

Please use these updated files for all new projects to take advantage of new features. For projects that have already started and are using previous versions, it is not required to transfer data to the newer versions, but is recommended to take advantage of new features and other corrections.

If you have questions, please feel free to contact me at [Leopkey.ted@epa.gov](mailto:Leopkey.ted@epa.gov) or 202-343-9659