**Florida eRatio Method Tests**

1. **Introduction**

The Florida eRatio Method tests are intended to determine the ability of software compliance tools to accurately calculate the Florida Energy Code compliance eRatio given a set of Standard Reference Design End Use Loads (REUL), Standard Reference Design End Use Energy Consumptions (EC\_r), Proposed Home End Use Energy Consumptions (EC\_x) and the applicable manufacturer’s equipment performance ratings (MEPR).

* 1. **Minimum Reporting Requirements.** At a minimum, all software tools must report the following values:
     1. Standard Reference Design End Use Loads (REUL) to the nearest 0.1 MBtu
     2. Heating (MBtu)
     3. Cooling (MBtu)
     4. Hot water (MBtu)
     5. Standard Reference Design End Use Energy Consumption (EC\_r) to the nearest 0.1 MBtu
     6. Heating (MBtu)
     7. Cooling (MBtu)
     8. Hot Water (MBtu)
     9. Proposed Home End Use Energy Consumption (EC\_x) to the nearest 0.1 MBtu
     10. Heating (MBtu)
     11. Cooling (MBtu)
     12. Hot Water (MBtu)
     13. Manufacturer’s Equipment Performance Ratings (MEPR)
     14. Heating system (HSPF, COP, AFUE, or CAFUE)
     15. Cooling system (SEER, EER or COP)
     16. Hot Water system (EF or CEF)
  2. **Test Description.** Florida Energy Code compliance for the following cases, located in Orlando, FL, shall be computed, reporting the values listed above.
     1. Case L130A-01: Using the HERS BESTEST L130 case, create a 3-bedroom Proposed Home containing the following equipment:
     2. Heating system – electric HP with HSPF = 7.7
     3. Cooling system – electric A/C with SEER = 13.0
     4. Hot Water – 40 gal electric with EF = 0.92
     5. All the equipment are to be located inside the conditioned space and heating and air conditioning ductwork are to be located in the conditioned space and have zero (0) air leakage.
     6. Case L100A-02: Identical to Case L130A-01 except that the hot water heater is changed to a tankless natural gas with EF = 0.82.
     7. Case L100A-03: Identical to Case L130A-01 except that the space heating system is changed to a natural gas furnace with AFUE = 78%.
     8. Case L100A-04: Identical to Case L130A-01 except that the space heating system is changed to a high efficiency HP with SEER=17 and HSPF = 10.
     9. Case L100A-05: Identical to Case L130A-01 except that the space heating system is changed to a high efficiency natural gas furnace with AFUE = 96%.
  3. **Acceptance Criteria.** Using the calculation spreadsheet provided by the Florida Building Commission (FL\_eRatio-results\_form.xls), software tools shall demonstrate the following:
     1. That reported Reference Home End Use Loads (REULs) vary by less than 0.2% across all cases.
     2. That the difference between the eRatios calculated by the software tool and the eRatios calculated by the results spreadsheet provided by the Florida Building Commission is less than 0.5% for all cases.