# **APPLICATION QC Review Procedure Manual**

## A. Documents Needed:

- 1. QC-RES-RHAapprovedDOCS (G-Drive)
- 2. QA-APP-DESK (G-Drive)
- 3. QA-APP-RHAapproved contractor docs (G-Drive)
- 4. QC-APP-InspectionCL and photos (EUCA inbox from inspector or on G-Drive)

#### B. APP QC Review Procedure:

- a. Import APP-CL into column AH of QA-APP-DESK.
- b. SAVE QA-APP-DESK as QC-APP-DESK.
- c. Open QC-RES-RHAapprovedEP, save as QC-APP-EP
- d. Generate temporary ECON report. Compare the ECON energy savings to the RES energy savings shown in column S, rows 184-187. In almost all cases, the QC-APP existing energy data should match the QC-RES existing energy data (exceptions include changing existing default building leakage from 4.9 SLA to 6.3 SLA, etc.)
- e. Review post- inspection photos, particularly images relating to proposed retrofit measures and safety observations.
- f. Change the QC-APP-EP alternate measures (calculations//RES performance//Alternatives) to match post-construction QC-APP-CL data verifying the proposed measures. DO NOT change the building tree (except in the improved model of a 2-model simulation.) In a single-model simulation, the building tree reflects the approved base conditions for the project.
- g. Re-calculate model to determine QC-APP energy savings from ECON reports.

# C. APP-QC Document generation:

- 1. Save new ECON report as QC-APP-RHAapprovedECON (for two-model projects save ECON reports as –RHAapprovedExistingECON and -RHAapprovedImprovedECON).
- 2. Save QC-APP-CL as QC-APP-RHAapprovedCL
- 3. Save QA-APP-JRT as QC-APP-RHAapprovedJRT
- 4. Save QC-APP-DESK as QC-APP-RHAapprovedDESK
- 5. Save QC-APP-EP as QC-APP-RHAapprovedEP (for two-model projects save ECON reports as –RHAapprovedExistingEP and -RHAapprovedImprovedEP).
- 6. Generate QC-APP-RHAapprovedRPT
  - a. import DESK data into QC-APP-RPT template
  - b. fill in date and appropriate project UPN (be careful that project # starts with 11 or 12 as appropriate and that there are three zeros "000###" in the UPN)
  - c. list issues and recommendations on RPT.
- 7. Generate QC-APP-RHAapprovedAppealLtr if required.
- 8. Generate QC-APP-RHAapprovedISCC if required.
- 9. Send APP-RHAapprovedDOCS to Olga, CC Roman, CC EUCA inbox.

#### **DESK Review spreadsheet text formatting:**

- A. BLACK text indicates:
  - 10. data that has either been imported into the spreadsheet from other documents.
  - 11. BLACK text indicates data that has been checked and verified in project documents.
- B. GRAY text indicates data that is copied from a document that needs to be verified in another project document. When verified, the GRAY text will be changed to **BLACK**.

EXAMPLE: Inspection CL data is imported into column O in **BLACK** text and automatically copied into the QC EPro model column P in **GRAY** text. When the data is verified in the EPro model, the text in column P will be manually changed to **BLACK**.

C. **RED** text is for data that does not match earlier documents (to the left on the DESK).

EXAMPLE: If the QA model indicates building orientation as West, and the Inspection indicates orientation as South, the text in O20 (building orientation) will be changed from **BLACK** to **RED**.

D. BLUE text is for data that is changed by the reviewer when verifiable data is missing, incorrectly shown or is being overridden by the reviewer. (Generally, BLUE text is used only in the QC EPro model columns P and AI.)

EXAMPLE: If the QC inspection checklist does not show equipment efficiency data, the reviewer enters the vintage default data in the QC EPro model column in **BLUE**.

#### **DESK Review spreadsheet Row formatting:**

E. Row Height: Expand cells where row height is too small and text is partially obscured:

Home>>Format>>AutoFit Row Height.

F. Hidden Rows: Unhide rows as needed for data on multiple stories, multiple systems, multiple roof insulation sections, multiple floor sections, etc.

EXAMPLE: The Inspection shows two HVAC systems... Highlight Rows 45-58>>Home>>Format>>Hide&Unhide>>Unhide Rows.