



Quick Guide to Using Residential Trade-off Worksheets

STEP 1: Find your climate zone based on the county in which your building is to be located (Chapter 3 of ECCC).

STEP 2: Complete the general information at the top of the Trade-off Worksheet.

STEP 3: Complete the PROPOSED section of the Trade-off Worksheet. Provide the area, R-value and U-value of each component. Use **net areas** for walls and roof assemblies that contain windows, doors, or skylights. U-values can be found in Tables 1 thru 10 of the *User's Guide*. R-values in tables are based on cavity insulation plus insulating sheathing (if used).

If more than one type of insulation or glass is used for a building component (i.e. two different R-values in the ceiling) use the additional blank lines for each R or U value provided in each block of the proposed section. (NOTE: Remember that, for heated basements, foundation walls that are 50% and greater above grade are considered Walls, while foundation walls less than 50% above grade are considered Basement Walls).

STEP 4: Compute the total Proposed UA. Multiply all proposed Uvalues by their corresponding area. Enter the results in the UA column. Sum the proposed UAs for all components and enter this sum in the *Total Proposed UA* box. Also sum the areas for Ceilings and Walls, and enter in the Total Area boxes. Transfer these Total Areas to the respective Required Area boxes.

STEP 5: Complete the REQUIRED section of the Trade-Off Worksheet Table 11 lists building component U-value requirements for each climate zone. Enter the required U-values in the appropriate *Required U-value* column. Copy the total areas to the *Area* column of the *Required* side.

STEP 6: Multiply Uvalues in the required column by their corresponding area; enter results in the UA column. Sum the UAs on the right side of the worksheet.

STEP 7: If high efficient HVAC is to be taken into account, complete the HVAC Trade-off Worksheet. Replace *Total Required UA* with HVAC adjusted UA (the new required UA will increase) from HVAC Trade-off worksheet.

STEP 8: Check for compliance. If the *Total Proposed UA* is less than or equal to the *Total Required UA* then your building complies with the thermal envelope requirements of ECCC of NYS. If not, you must adjust insulation R-values; areas; and/or HVAC system efficiency in your proposed building.