*REPLACE ORIGINAL CEPI-46 PROPOSAL WITH THE FOLLOWING:*

**Component Performance Alternative CEPI-46**

**IECC®: C402.1.5**

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**2021 International Energy Conservation Code**

**Revise as follows**

**C402.1.5 Component performance alternative.** Building envelope values and fenestration areas determined in accordance with Equation 4-2 shall be an alternative to compliance with the *U-*, *F*- and *C*-factors in Tables C402.1.4 and C402.4 and the maximum allowable fenestration areas in Section C402.4.1. *Fenestration* shall meet the applicable SHGC requirements of Section C402.4.3.

~~A + B + C + D + E Zero~~ **~~(Equation 4-2)~~**

~~where:~~

~~A = Sum of the (UA Dif) values for each distinct assembly type of the~~ *~~building thermal envelope~~*~~, other than slabs on grade and below-grade walls.~~

~~UA Dif = UA Proposed – UA Table.~~

~~UA Proposed = Proposed~~ *~~U~~*~~-value × Area.~~

~~UA Table = (~~*~~U~~*~~-factor from Table C402.1.3, C402.1.4 or C402.4) × Area.~~

~~B = Sum of the (FL Dif) values for each distinct slab-on-grade perimeter condition of the~~ *~~building thermal envelope~~*~~.~~

~~FL Dif = FL Proposed – FL Table.~~

~~FL Proposed = Proposed~~ *~~F~~*~~-value × Perimeter length.~~

~~FL Table = (~~*~~F~~*~~-factor specified in Table C402.1.4) × Perimeter length.~~

~~C = Sum of the (CA Dif) values for each distinct~~ *~~below-grade wall~~* ~~assembly type of the~~ *~~building thermal envelope~~*~~.~~

~~CA Dif = CA Proposed – CA Table.~~

~~CA Proposed = Proposed~~ *~~C~~*~~-value × Area.~~

~~CA Table = (Maximum allowable~~ *~~C~~*~~-factor specified in Table C402.1.4) × Area.~~

~~Where the proposed vertical glazing area is less than or equal to the maximum vertical glazing area allowed by Section C402.4.1, the value of D (Excess Vertical Glazing Value) shall be zero. Otherwise:~~

~~D = (DA × UV) – (DA × U Wall), but not less than zero.~~

~~DA = (Proposed Vertical Glazing Area) – (Vertical Glazing Area allowed by Section C402.4.1).~~

~~UA Wall = Sum of the (UA Proposed) values for each opaque assembly of the exterior wall.~~

~~U Wall = Area-weighted average~~ *~~U~~*~~-value of all above-grade wall assemblies.~~

~~UAV = Sum of the (UA Proposed) values for each vertical glazing assembly.~~

~~UV = UAV/total vertical glazing area.~~

~~Where the proposed skylight area is less than or equal to the skylight area allowed by Section C402.4.1, the value of E (Excess Skylight Value) shall be zero. Otherwise:~~

~~E = (EA × US) – (EA × U Roof), but not less than zero.~~

~~EA = (Proposed Skylight Area) – (Allowable Skylight Area as specified in Section C402.4.1).~~

~~U Roof = Area-weighted average~~ *~~U~~*~~-value of all roof assemblies.~~

~~UAS = Sum of the (UA Proposed) values for each skylight assembly.~~

~~US = UAS/total skylight area.~~

AP + BP + CP ≤ AT + BT + CT – VF – VS  **(Equation 4-2)**

wher**e:**

AP = Sum of the (area x U-factor) for each proposed building thermal envelope assembly, other than slab-on-grade or below-grade wall assemblies

BP = Sum of the (length x F-factor) for each proposed slab-on-grade edge condition

CP = Sum of the (area x C-factor) for each proposed below-grade wall assembly

AT = Sum of the (area x U-factor permitted by Tables C402.1.4 and C402.4) for each proposed building thermal envelope assembly, other than slab-on-grade or below-grade wall assemblies

BT = Sum of the (length x F-factor permitted by Table C402.1.4 for each proposed slab-on-grade edge condition

CT = Sum of the (area x C-factor permitted by Table C402.1.4) for each proposed below-grade wall assembly

PF = Maximum vertical fenestration area allowable by Section C402.4.1, C402.4.1.1, or C402.4.1.2

QF = Proposed vertical fenestration area

RF = QF – PF, but not less than zero (excess vertical fenestration area)

SF = Area-weighted average U-factor permitted by Table C402.4 of all vertical fenestration assemblies

TF = Area-weighted average U-factor permitted by Table C402.1.4 of all exterior opaque wall assemblies

UF = SF – TF (excess U-factor for excess vertical fenestration area)

VF = RF x UF (excess UxA due to excess vertical fenestration area)

PS = Maximum skylight area allowable by Section C402.1.4

QS = Actual skylight area

RS = QS – PS, but not less than zero (excess skylight area)

SS = Area-weighted average U-factor permitted by Table C402.4 of all skylights

TS = Area-weighted average U-factor permitted by Table C402.4.1 of all opaque roof assemblies

US = SS – TS (excess U-factor for excess skylight area)

VS = RS x US (excess UxA due to excess skylight area)