

$$CO_{2,CO} = \left[ \begin{aligned} &(FL \times TC_{FL}) + (AR \times TC_{AR}) + \sum_{i=1}^n (AF_i \times TC_{AF,i}) + \sum_{j=1}^m (MC_j \times TC_{MC,j}) \\ &- (AL \times TC_{AL}) - (LA \times TC_{LA}) - (GCO \times TC_{GCO}) - (R \times TC_R) \end{aligned} \right] \times 3,664$$