

$$CO_2 = \sum_{k=1}^{12} \left[ \sum_{i=1}^n \left[ (V_{GA})_{i,k} \times (TC_{GA})_{i,k} \times \frac{(MM_{GA})_i}{CVM} \right] - \sum_{j=1}^m \left[ (V_{GP})_{j,k} \times (TC_{GP})_{j,k} \times \frac{(MM_{GP})_j}{CVM} \right] \right] \times 3,664 \times 1$$