

$$CO_{2,EAF} = \left[\begin{aligned} &(I \times C_I) + (SC \times C_{SC}) + \sum_{j=1}^m (FL_j \times C_{FL,j}) + (EL \times C_{EL}) \\ &+ \sum_{i=1}^n (CAR_i \times C_{CAR,i}) - (ST \times C_{ST}) - (SL - C_{SL}) - (R \times C_R) \end{aligned} \right] \times 3.664$$