$$\dot{Q}_h\left(T_j\right) = \dot{Q}_{hp}\left(T_j\right) + \dot{Q}_{CC}\left(T_j\right)$$

$$\dot{E}_h\left(T_j\right) = \dot{E}_{hp}\left(T_j\right) + \dot{E}_{CC}\left(T_j\right)$$