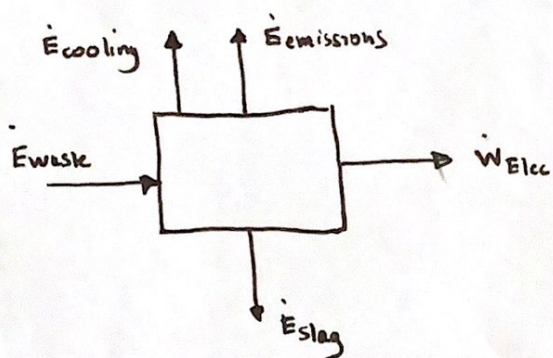


$$\dot{m}_{\text{waste}} - \dot{m}_{\text{emissions}} - \dot{m}_{\text{slag}} = \phi$$



$$\dot{E}_{\text{waste}} = \dot{E}_{\text{cooling}} - \dot{E}_{\text{emissions}} - \dot{E}_{\text{slag}} - \dot{W}_{\text{elec}}$$