

$$LCOH = \frac{LHV}{\eta_{sys,LHV}} \left( \underbrace{\left( \frac{\frac{i}{100} \cdot \left(1 + \frac{i}{100}\right)^n}{\left(1 + \frac{i}{100}\right)^n - 1} \right)}_{\text{specific energy demand}} + \underbrace{\frac{OPEX}{100}}_{\text{annuity}} \right) \frac{CAPEX}{\tau} + E$$

**LCOH** levelised cost of hydrogen [€/kgH<sub>2</sub>]  
**LHV** lower heating value [kWh/kgH<sub>2</sub>]  
**i** discount rate [%]  
**n** lifetime [a]  
**E** electricity costs [€/kWh]

**η<sub>sys,LHV</sub>** system efficiency related to the LHV  
**τ** full load hours [h]  
**OPEX** operational expenditures [% CAPEX/a]  
**CAPEX** capital expenditures [€/kW]