## Difficult to decarbonise industries - Lime making

sbh4 consulting

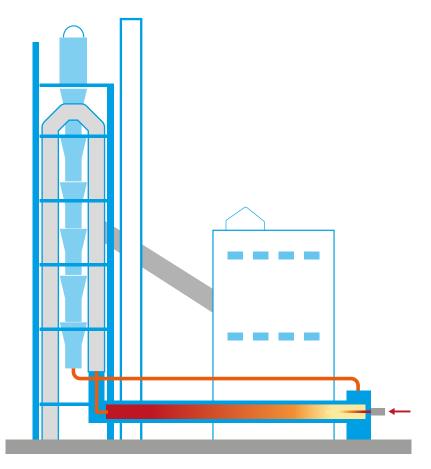
© 2025 sbh4 GmbH

## **Notes:**

Unavoidable CO<sub>2</sub> emissions occur from the lime stone calcination process and are also associated with the energy and power requirements.

Heat for calcination can be decarbonised with renewable power for electrical heating, or biofuels.

CO<sub>2</sub> capture from the process is essential for decarbonised lime production.



Calciner tower & rotary lime kiln

Main CO <sub>2</sub> source
Chemical reaction producing CO <sub>2</sub>
Other industries with similar
applications

## Lime making

Reduction of limestone to calcium oxide  $CaCO_3 \rightarrow CaO + CO_2$ 

- Cement making
- Refractory materials, MgCO<sub>3</sub> → MgO + CO<sub>2</sub>