

Based on its proprietary modelling approach and vast experience from multiple Green Hydrogen projects in Brazil, CELA developed **CELA's LCOH Brazil Index**. This index shows the cost of producing green hydrogen in the country, considering its unique characteristics in relation to taxes, renewable resources, and logistics.

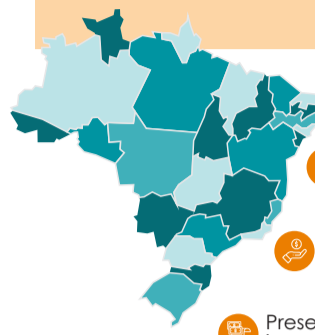


### Why Green Hydrogen?

Green hydrogen has the potential to **reduce emissions in various hard-to-decarbonize sectors**, such as the fertilizer industry, air and maritime transport, steel, among others.

This is particularly relevant because the world is **not** on track to achieve the Paris Agreement and Net Zero goals – achieving net-zero emissions by 2050 to stay within the 1.5°C global warming limit.

### Why Brazil?



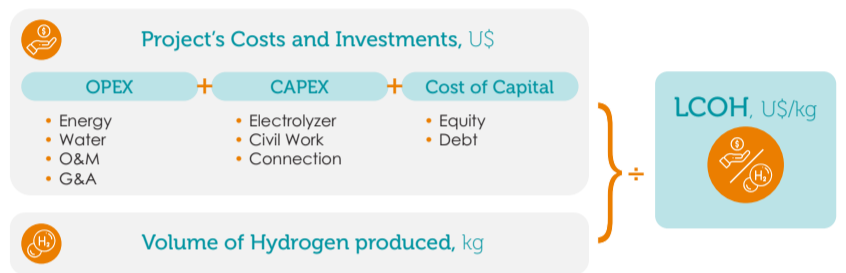
- Exceptional capacity in renewable energy, mainly **solar and wind**
- Competitive cost** of renewable energies in Brazil on a global level
- Potential domestic market for green hydrogen consumption (fertilizers, air transport, steel, among others)
- Presence of Special Economic Zones (SEZs)<sup>1</sup> with tax incentives

(1) SEZs: Special Economic Zones are a class of special economic zone. They are geographic areas where goods can be imported, stored, handled, manufactured or reconfigured and re-exported in accordance with specific customs regulations and, in general, are not subject to customs duties.

### What is LCOH and how is it calculated?

**LCOH**, or Levelized Cost of Hydrogen, is a method used to account for **all operational and capital costs of hydrogen production**, considering upstream phases (H<sub>2</sub> production).

In other words, LCOH is the production cost required to meet the project's capital cost.



### What are the main variables in the LCOH calculation?

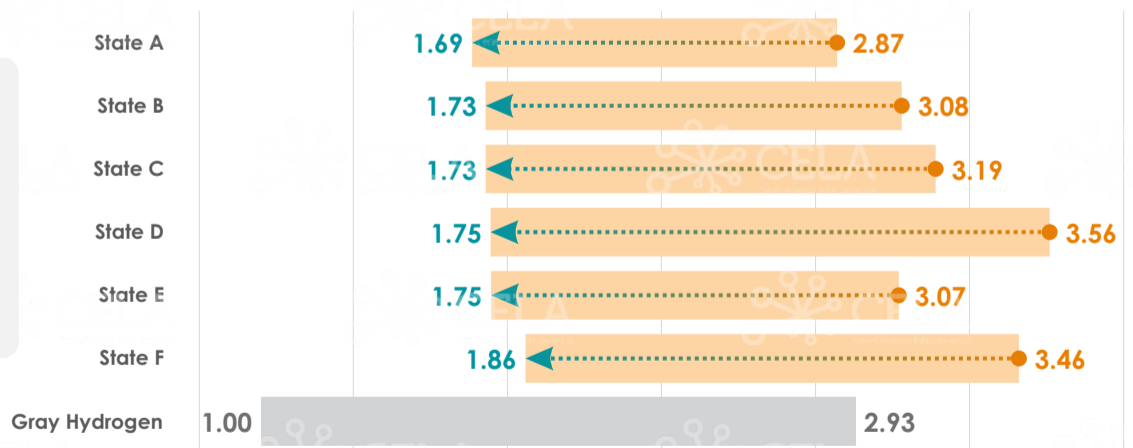
After simulations, scenario analyses, and sensitivity assessments, CELA consolidated the **levers with the greatest impact to unlock the potential of renewable hydrogen in Brazil at competitive prices**:

- Costs**
  - PPA and Grid Connection
  - Investment opportunities in renewable plants (self-production)
  - Materials, fees, and taxes costs
- CAPEX**
- Technical Assumptions**
  - Type of electrolyser
  - Operational period
  - Utilization factor
  - Electrolyser degradation and restacking
- Financing**
  - Capital optimizations and financing
  - Corporate structures
- Taxes**
  - Corporate taxes and fiscal incentives
  - Current and future taxation, incentives, and exemptions for H<sub>2</sub> and energy



### CELA's LCOH Brazil Index, US\$/kg per location in Brazil (A to F)

Base date 2023

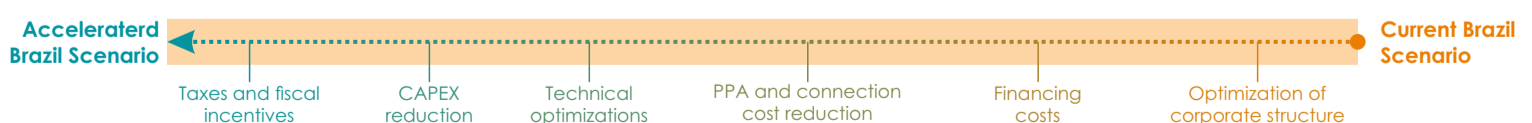


CELA's LCOH Brazil Index currently ranges from **2.87-3.56 US\$/kg** depending on the project location.

With optimizations and incentives, these values could reach a range of **1.69-1.86 US\$/kg**

### Range of Optimizations

The difference between the **Accelerated LCOH Brazil Scenario** and the **Current LCOH Brazil Scenario** considers a combination of several variables:



**With optimizations, especially fiscal and regulatory incentives, green hydrogen can quickly reach similar costs as grey hydrogen**