

OPIS Global Hydrogen Analysis

OPIS
A DOW JONES COMPANY

Gain greater clarity on the hydrogen market.

OPIS Global Hydrogen Analysis delivers timely, reliable intelligence to a hydrogen market that remains complex and opaque. Combining rigorous data with expert insight, it helps businesses understand hydrogen's role in established sectors such as refining and chemicals, while also navigating its growing importance in the energy transition.

Powered by **OPIS' Hydrogen Calc Data Platform**, the service provides proprietary historical and forward-looking data on costs, projects, offtake, hydrogen balances in global hubs, OEM activity, and the latest market developments. This helps businesses better understand hydrogen's role today and its long-term importance across conventional fuels, alternative fuels, power, transportation, and green chemistries.

What's Included:

- Data platform spanning hydrogen production costs in more than 30 countries, global hydrogen projects and offtake database, global refining hydrogen utilization, electrolyzer technology specifications and user-defined calculators and scenario analysis.
- Timely hydrogen project updates and a Monthly Hydrogen Report covering costs, commentary, news, project pipeline changes and refinery balance snapshots.
- Quarterly Hydrogen Balances for major hubs including the US Gulf Coast and Northwest Europe.
- Annual hydrogen supply-demand analysis covering production, consumption and trade through 2060 across refining, ammonia, methanol, steel, chemicals and other global downstream sectors
- Quarterly Hydrogen Profiles focused on FID projects and notable policy-backed developments.
- Coverage across grey, blue and green hydrogen markets, with historical data and annualized long-term outlooks.
- Calculator tools for grey, blue and green hydrogen, hydrogen compression requirements, and green hydrogen scenario comparison by date, country, electrolyzer company, technology and model.
- Additional case studies and ad hoc use cases covering supply reviews, offtake analysis, hydrogen calculators and technology trends.

Why OPIS Global Hydrogen Analysis:

- Understand hydrogen production costs across grey, blue and green pathways using methodology-based cost references, localized input assumptions and technology parameters.
- Track more than 4,000 low-carbon and conventional hydrogen projects globally, with project-level intelligence on status, capacity, offtake, demand, spend and risk.
- Access regional and country-level supply-demand and trade balances, including major industrial hubs and long-term outlooks extending to 2060.
- Evaluate the technologies shaping the market through electrolyzer manufacturer and model-level specifications, including system size, efficiency, power requirements, CAPEX and water consumption.
- See how hydrogen is produced, consumed and purchased across global refineries, along with refinery intensity and associated CO2 emissions.
- Periodic reports that provide strategic insights into thematic topics and maintain a pulse on the latest developments in the sector.



Built In Partnership With Hydrogen Calc

OPIS Global Hydrogen Analysis is strengthened through its collaboration with Hydrogen Calc, combining OPIS's market and analytical expertise with Hydrogen Calc's global hydrogen intelligence platform and industrial expertise, which is built on several decades of experience in industrial gas services, and in the supply & operation of the largest refining and chemical complexes globally. The collaboration enhances the service with holistic proprietary data and analytical insights, that together provide customers with a comprehensive and connected view of the hydrogen market across existing industrial applications and new project developments.

Who Does It Benefit:

- OPIS Global Hydrogen Analysis is designed for all stakeholders across current existing hydrogen value chains, as well as for developers of new, low-carbon and green hydrogen applications.
- The OPIS Global Hydrogen Report is relevant across current and future hydrogen sectors, which includes hydrogen producers, refiners, low-carbon and green hydrogen project developers, traders, technology suppliers, port and terminal operators, chemical producers and green steel producers, as well as other stakeholders evaluating hydrogen market opportunities across ammonia, methanol, steel, chemicals and adjacent markets.

Questions It Helps Answer:

- How have hydrogen costs evolved across global jurisdictions – from the 2000s till date –, and which benchmark cost references can support commercial business cases?
- What are hydrogen balances in global hubs, and how are the short/long position dynamics across captive, merchant and by-product hydrogen streams?
- How do refinery hydrogen balances, utilization and emissions vary across regions and assets?
- Where can accurate electrolyzer OEM data be obtained, such as stack size, efficiency, Capex etc. to support green hydrogen-based project development?
- Which tools can reliably support process calculations for green hydrogen business cases, with flexibility for regional defaults and user-definable parameters?
- Which geographies are emerging for competitive hydrogen project deployment?
- Where do supply-demand gaps exist, and how are projects progressing from announcement through FID?
- Which companies are securing offtake agreements, from what industries, and where is demand taking shape and on what terms?
- What policies, technologies and downstream demand drivers are shaping the next phase of market development?

Sectors of Interest:



Refining: the highest share of hydrogen use today. It is used to “treat” oil and gas feedstocks to produce refined products (gasoline, diesel, aviation fuel etc.). This sector typically uses pure hydrogen.



Ammonia & Methanol: a smaller but no less important share of hydrogen use today. It is used in the production of methanol, and consequently, several key industrial chemicals. This sector typically uses hydrogen in the form of “syngas”.



Iron & Steel: hydrogen-based direct reduced iron is a growing pathway to decarbonize existing coal-based production (i.e., to create “green steel”).



Transportation: hydrogen in fuel cell vehicles (and locomotives), is emerging as a front runner for long distance and heavy-duty transport.



Alternative Fuels: hydrogen is key to developing low-carbon fuels, such as biodiesel, renewable diesel, sustainable aviation fuels (SAFs), among others.

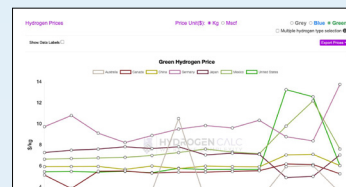


Power Generation: an emerging sector for energy storage and reliability from wind and solar, and for decarbonizing electricity grids.

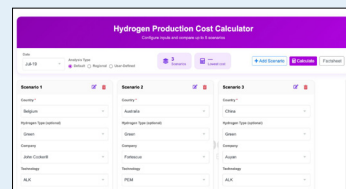
OPIS' Hydrogen Calc Platform

Hydrogen Calc aims to be the world's most trusted hydrogen intelligence data partner, providing unparalleled market intelligence across over 4,000 global hydrogen projects. Its comprehensive database tracks critical insights into production costs, technology developments, and demand and off-taker intelligence. This empowers stakeholders to make informed decisions and optimize strategies within the hydrogen economy.

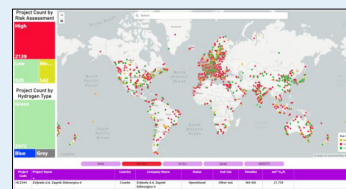
Hydrogen Production Costs



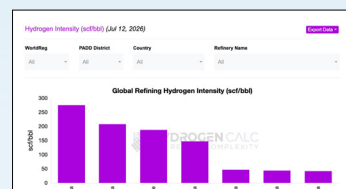
Hydrogen Production Cost Calculator [Scenario Comparison]



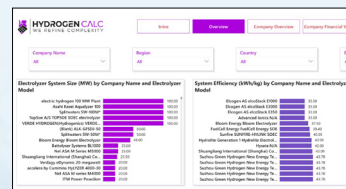
Global Hydrogen Projects Database



Global Refining Hydrogen Utilization



Electrolytic and Low-Carbon Hydrogen Supplier Dashboard



Find out more:
www.opis.com