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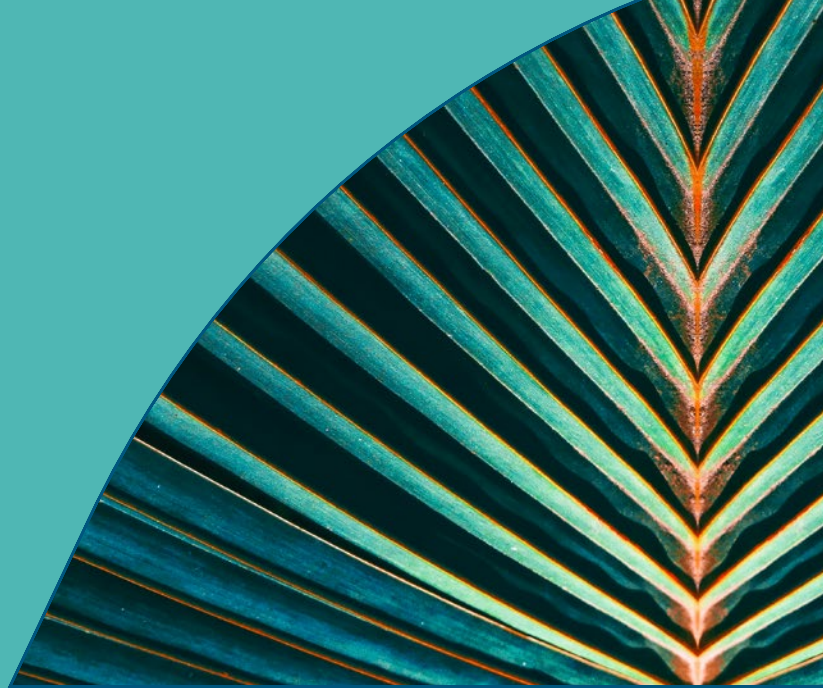
Life-Cycle Analysis and Clean Hydrogen Consulting



Transitioning to a sustainable and equitable world is one of the greatest challenges humankind has faced – with political winds, carbon markets, and transition costs constantly shifting.

Low carbon molecules, particularly clean hydrogen, will play an important role in the energy transition. And to make real progress, we need to understand the environmental benefits and potential impacts of producing, transporting, and using clean hydrogen and its derivatives such as clean ammonia and eMethanol. To assess these impacts, EcoEngineers uses a technique called Life-Cycle Analysis (LCA).

Conducting an LCA involves compiling an inventory of relevant energy and material inputs and environmental releases; evaluating the potential environmental impacts associated with the identified inputs and releases; and then interpreting the results to help you make more informed decisions. This expertise of multi-disciplinary teams is often not available in-house – and that's where Eco can help.

What's your clean hydrogen project's CI score?

A carbon intensity (CI) score is the aggregated greenhouse gas (GHG) emissions during the life cycle of a fuel divided by the quantity of the fuel. To qualify for the clean hydrogen production tax credit (45v) under the United States Inflation Reduction Act (IRA) of 2022, an LCA is required to determine if the hydrogen has a CI score of 4 kg CO_2e per kg of hydrogen or lower on a well-to-gate basis.

Our Services:

- Life-Cycle Analysis
- LCFS Pathway Application
- Investment Due Diligence
- Feasibility Studies
- Offtake Market & Revenue Analysis
- H2 Project Development
- White Papers
- Training & Education
- Regulatory Engagement
- Ongoing Compliance Management

An LCA should be conducted as early as possible in the project development cycle. You'll want to design your project from the outset to maximize the value of the 45v tax credit and other relevant programs.

Eco helps companies develop clean fuels projects from conception to commissioning, including the review of off-take agreements. After the project is up and running, we provide ongoing compliance management to make sure your revenue stream from carbon credits and incentives remains stable.

ecoengineers.us
+1 515.985.1260
909 Locust St., Suite 202
Des Moines, IA 50309

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Eco has performed more than 500 carbon LCAs since 2015. We have experience in all of the regulations that require LCA, including the US Renewable Fuel Standard (RFS), California Low Carbon Fuel Standard (LCFS), Oregon Clean Fuels Program (CFP), Canada Clean Fuel Regulations (CFR), British Columbia Renewable and Low Carbon Fuel Requirements (RLCFR), Brazil RenovaBio, EU Renewable Energy Directive (RED) and impending directives, along with emerging Voluntary Carbon Markets.

About EcoEngineers

EcoEngineers is a consulting, audit, and advisory firm with an exclusive focus on the energy transition. From innovation to impact, we help you navigate the disruption caused by carbon emissions and climate change. We help you stay informed, measure emissions, make investment decisions, maintain compliance, and manage data through the lens of carbon accounting. Our team consists of engineers, scientists, auditors, consultants, and researchers with deep expertise on global fuels policy, energy and carbon markets, and alternative solutions to meet energy demands. Eco was established in 2009 to steer low-carbon fuel producers through the complexities of emerging energy regulations in the United States. Today, our global team is shaping the response to climate change by advising businesses across the energy transition. Together, we can create a world where clean energy fuels a healthy planet.

Navigating the Energy Transition

For more information about any of our clean hydrogen services, contact:

Tanya Peacock, Managing Director, California and Hydrogen | tpeacock@ecoengineers.us

Guillermo Aguirre, Senior Carbon Consultant | gaguirre@ecoengineers.us

Daniel Ciarcia, EV Services Director | dciarcia@ecoengineers.us