

INNOVO Net Zero, Nil Capex for the Oil & Gas Industry

Oil & Gas CO₂ Emissions

INNOVO
PROFITABLE NET ZERO

Smoke
CO₂

Bio-farm

Highly
Profitable
Products

ALGAE IN SEAWATER DIGEST CO₂

BIO-FARM PROFIT = NET ZERO, NIL CAPEX

Data Centers

Clean Electricity

Net Zero

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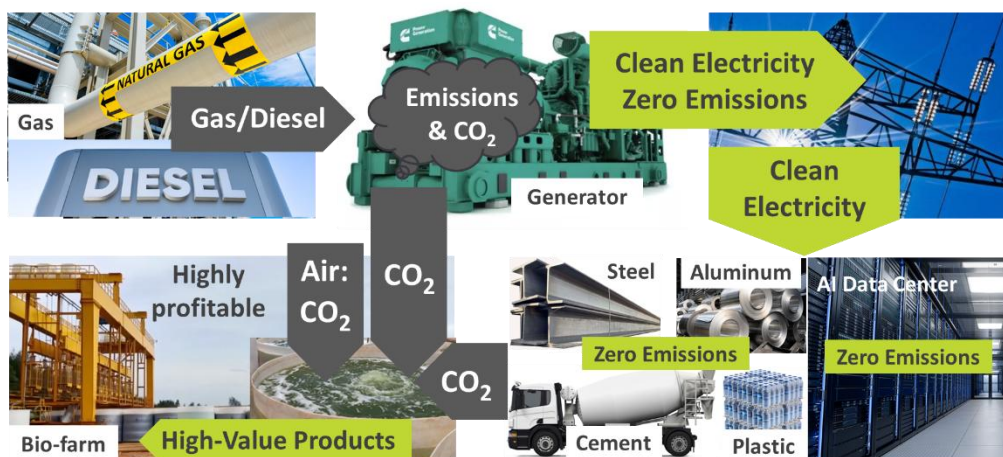
Executive Summary: Net Zero, Nil Capex for the Oil & Gas Industry

Transformational Technology for Oil & Gas Decarbonization

INNOVO offers a transformational solution to the oil and gas industry's most pressing challenge: achieving net-zero emissions without massive capital expenditure. Through its proven Smoke2Value algae bio-farm technology, INNOVO finances, builds, and operates carbon-negative infrastructure that profitably digests millions of tons of CO₂ emissions at no cost to emitters: [Net Zero Nil Capex](#)

The Technology

Smoke2Value Algae Bio-farms Profitably Digest CO₂ in Smoke



CO₂ in industrial smoke is bubbled through algae in water.

The algae profitably digest the CO₂ in smoke to yield high-value products such as fish feed, food supplements, cosmetics, and sustainable aviation fuel.

Smoke2Value bio-farms utilize industrial-scale algae cultivation in thousands of deep tanks filled with seawater. CO₂ from industrial smoke emissions is bubbled through these tanks, where algae rapidly grow through photosynthesis in sunlight. The harvested algal biomass is refined into high-value products, particularly crude algal oil—a premium feedstock for Sustainable Aviation Fuel (SAF). Each bio-farm generates approximately \$200 profit per ton of CO₂ digested, making the technology seven times more profitable than solar energy.

The technology has been rigorously validated through two years of due diligence by five of the world's top ten oil and gas majors, including BP, Chevron, and Shell. These companies between them placed \$16 billion in multi-year offtake contracts, demonstrating proven commercial demand at industrial scale.

Strategic Impact on Oil & Gas Industry

Market Share Protection: The oil and gas sector's global energy market share declined from approximately 60-65% in 2020 to 50-52% in 2024, representing an estimated revenue loss of \$700-900 billion. INNOVO's technology can halt and potentially reverse this decline by enabling oil and gas to become a zero-emissions energy source, eliminating the primary driver forcing industrial clients toward alternative energy.

Client Retention and Growth: Heavy industries face staggering decarbonization costs over the next 30 years—\$4.4 trillion for steel, \$1.8 trillion for cement, and \$2.7 trillion annually for power generation. By offering zero-emission oil and gas at nil capex, majors can retain these clients long-term and command premium pricing for emission-neutral energy products.

Net Zero Gas-Powered Data Centers: INNOVO Net Zero has developed a carbon-neutral power generation solution for data centers by combining conventional gas generators with industrial-scale algae bio-farms. Electrical power for INNOVO Net Zero data centers is 22% cheaper than solar and 39% cheaper than nuclear.

Stranded Asset Mitigation: Up to \$30.6 trillion in fossil fuel assets face stranding by 2050 under net-zero scenarios. By neutralizing emissions from existing infrastructure, Smoke2Value bio-farms extend the economic life of oil and gas assets, protecting shareholder value and avoiding massive write-downs.

Competitive Advantages for First Movers

An oil and gas company that deploys INNOVO's technology first will gain significant competitive advantages:

Price Premium: It is estimated that zero-emissions oil and gas can command a premium of \$30-50 per barrel over conventional products. For a major producing 2 million barrels daily, this translates to \$60 million per day or \$22 billion annually in incremental revenue. This premium reflects avoided carbon costs (currently €80-100 per ton CO₂ in EU markets) and growing ESG compliance requirements.

Enhanced Valuation: First movers demonstrating credible net-zero pathways typically trade at 10-20% higher valuation multiples than industry laggards. Combined with revenue growth from premium pricing and SAF sales, early adopters could see share price appreciation of 20-30% within 12-24 months.

SAF Market Dominance: The global SAF market faces severe supply constraints - current production meets less than 2% of demand. INNOVO is deploying 24 large bio-farms in Texas and Australia that will produce crude algal oil sufficient to yield 1.5 million tons of SAF annually, effectively doubling current global production. Each bio-farm generates \$63 million in SAF feedstock revenue in year one, rising to \$151 million annually by year five.

Regulatory Tailwinds

Stringent global mandates and regulations are driving SAF demand exponentially including the EU, USA, and Asia-Pacific. Furthermore, ICAO CORSIA, the new mandatory global framework begins in 2027.

Financial Impact for Oil & Gas Clients

INNOVO's net zero, nil capex model delivers substantial savings to heavy-emitting clients:

- **Global steel company:** Digest 1 million tons CO₂ yearly, saving approximately \$200 million in decarbonization costs
- **Chemical factories:** Bio-farms collocated with six facilities of a global plastics producer
- **Data centers:** Gas-powered facilities achieving net-zero emissions through collocated bio-farms

These case studies demonstrate how oil and gas majors can strengthen downstream relationships while protecting revenue streams.

Implementation Model

INNOVO assumes all capital expenditure (approximately \$400 million per bio-farm), construction, and operational responsibilities. Oil and gas majors provide CO₂ emissions and secure long-term offtake agreements for SAF feedstock and carbon credits. This zero-capex model eliminates financial barriers while enabling majors to meet decarbonization commitments and access high-growth SAF markets.

Bio-farms can digest CO₂ both from direct emissions and through direct air capture, providing flexibility to offset emissions from sources not amenable to direct capture technology.

\$160M Profit from Tax Credits for Oil & Gas Major

To expedite deployment, INNOVO offers an attractive financing arrangement for the first oil & gas major partner. Each \$800 million U.S. bio-farm is eligible for \$720 million in 45Q Production Tax Credits. INNOVO proposes transferring \$320 million in tax credits to the oil & gas major in exchange for a \$160 million sustainability-linked loan.

This structure provides the lender with a 2:1 secured return while accelerating bio-farm construction financing. The arrangement allows oil & gas majors to participate in the clean energy transition while generating attractive financial returns and securing long-term access to sustainable aviation fuel.

Conclusion

INNOVO's Smoke2Value technology represents a paradigm shift for the oil and gas industry. Rather than managed decline, majors can achieve profitable growth while meeting net-zero commitments. The first mover can establish market leadership in both traditional oil and gas markets (through premium pricing for emission-neutral products) and the rapidly expanding SAF sector. With proven technology, \$16 billion in existing offtake contracts, and deployment plans already underway, INNOVO offers oil and gas majors an immediate path to strategic repositioning in the energy transition.

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“Seismic” Impact of INNOVO Net Zero, Nil Capex for Oil & Gas

The **global launch of INNOVO’s highly profitable Smoke2Value bio-farms** - which finance, build, and operate carbon-negative infrastructure to digest millions of tons of CO₂ emissions - would likely have a **transformational impact** on the **oil and gas industry**, both strategically and financially.

Company Overview

INNOVO finances, builds, and operates highly profitable large-scale clean-tech projects (c. \$400M capex each) to help major emitters cut carbon emissions by 2030. These net zero projects are so profitable that INNOVO can offer them at nil capex to the emitter. INNOVO partners with proven, initial industrial-scale cleantech firms so that INNOVO can rapidly deploy them in many large-scale projects around the world.

Smoke2Value Technology Proven at Industrial Scale

Webpage and short video: [Smoke2Value](#)

Algae in the oceans grow by digesting half of the planet’s CO₂ using sunlight and photosynthesis. Microalgae have been profitably grown in shallow ponds for decades by hundreds of small companies to produce a range of natural products, including animal feed, fish feed, food supplements, cosmetics and nutraceuticals.

A revolutionary version of this clean technology has now been proven at an industrial scale. Using thousands of 2.4-meter high tanks and a harvester, it produces 127 times more algal biomass than shallow ponds.

Smoke2Value Technology Proven at Industrial Scale

Harvester

**\$800M Capex
500 acres**

Digests 1 million tons CO₂ yearly

Smoke CO₂

Air: CO₂

Algae in seawater digest CO₂

Algae in seawater digest CO₂ in sunlight (photosynthesis) to grow. The increased algal biomass is regularly harvested.

Algal Biomass is Refined to Yield High-Value Products

**The technology is highly profitable:
58% IRR 2.6 year-payback**

High profits enable Net Zero, Nil Capex

Sustainable Aviation Fuel (SAF)

Animal Feed Fish Feed

Food supplements

Food colorants

Cosmetics Nutraceuticals

There are 250,000 tanks on a 500-acre bio-farm. The algae grow in bright sunlight through photosynthesis, just like they do in the sea. The algal biomass is harvested by the yellow overhead harvester and then sent for fractionation and refining to yield numerous products for different markets. Half of the crude algal oil output is destined for sustainable aviation fuel feedstock.

\$16 Billion of Offtake Contracts from 5 of the World’s Top 10 Oil & Gas Companies

Five of the world's top 10 oil & gas companies, including BP, Chevron, and Shell each performed 2 years' due diligence on the technology. Between them, they then placed \$16 billion of offtake contracts for the crude algal oil feedstock for sustainable aviation fuel. An INNOVO Smoke2Value bio-farm is to be collocated on a net zero, nil capex basis adjacent to the oil refinery of an oil & gas major to profitably digest all its emissions.

Positive Impact on Oil & Gas Clients in Heavy Industries & Power Generation

Profitably enabling oil & gas to be a zero-emissions source of energy at nil capex has a profoundly positive effect on their clients in heavy industries and power generation. This is demonstrated by the resulting long-term potential savings in current ongoing decarbonization costs as the Smoke2Value bio-farm technology is deployed globally:

- **Steel industry: \$4.4 trillion** over the next 30 years.¹
- **Cement industry: \$1.8 trillion** over the next 30 years.¹
- **Power generation: \$2.7 trillion** yearly.²

A Smoke2Value bio-farm can **digest the same amount of CO₂ from the air as it does in emissions**. This **extra direct air capture offsets those emissions** which are not susceptible to direct capture by a bio-farm. There are ongoing case studies which demonstrate the positive impact on specific oil & gas clients:

- **Global steel company** where the net zero, nil capex model can profitably **digest 1 million tons CO₂** yearly, saving **~\$200 million in decarbonization costs**.
- INNOVO Smoke2Value bio-farms collocated on a **net zero, nil capex** basis with a succession of the first **six chemical factories of a global plastics producer**.
- A **gas-powered data center** is to have **net zero emissions** because its CO₂ is to be digested by a collocated INNOVO Smoke2Value bio-farm.

Net Zero, Nil Capex with Smoke2Value Bio-farms

Webpage and short video: [Net Zero Nil Capex](#)

We save companies with large carbon footprints, \$B+ of capex, enabling them to achieve net zero at minimal cost to them. We have started to finance, build and operate very profitable clean technology projects alongside their operations to profitably digest millions of tons of their CO₂ emissions. INNOVO makes \$200 profit per ton of CO₂ emissions, which it converts with \$400M algae bio-farms into high-value products. Bio-farms are highly profitable with an IRR of 56% and a 2.6-year payback. This very high level of profitability enables us to finance the construction and operation of a Smoke2Value bio-farm alongside a heavy emitter. This enables us to expedite the deployment of the technology.

Halting the Global Decline of Oil & Gas Market Share

Estimated Revenue Loss Due to Market Share Decline

- **Market share of oil and gas** in global energy declined from **~60–65% in 2020** to **~50–52% in 2024**.
- Assuming a **constant demand scenario**, this **~10–13% drop in market share** translates to a **revenue loss of \$700–900 billion** over the four-year period.
- This estimate is supported by:
 - A **10% real-term drop in cash from operations** for upstream companies in 2024.³
 - A **15% decline in shareholder distributions** (dividends and buybacks).¹

Zero-Emissions Oil & Gas Power for Data Centers

Technology Overview

INNOVO Net Zero has developed a carbon-neutral power generation solution for data centers by combining conventional oil and gas generators with industrial-scale algae bio-farms. The Smoke2Value technology captures CO₂ emissions from generators and converts them into high-value commercial products through photosynthetic algae cultivation in seawater tanks. This approach enables data centers to use reliable, on-demand fossil fuel power while achieving net-zero emissions.

Electrical power for INNOVO Net Zero data centers is 22% cheaper than solar and 39% cheaper than nuclear.

¹ [Spotting opportunities in a surging net zero world | Sustainability | McKinsey & Company](#)

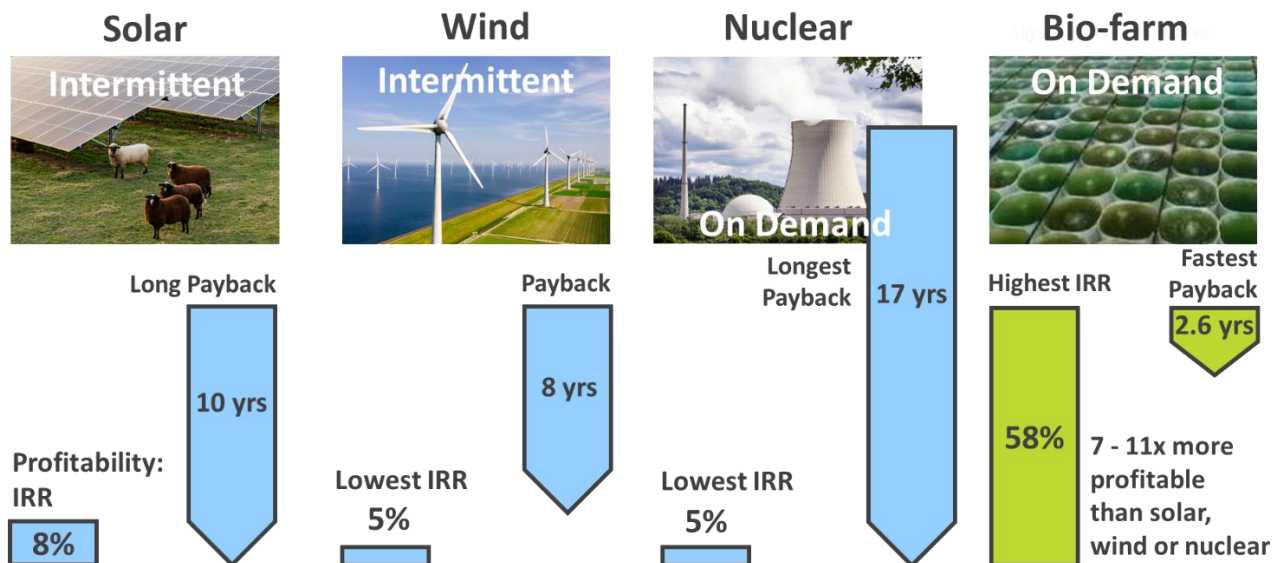
² www.publicpower.org

³ www.eia.gov

The technology has been proven at an industrial scale, producing 127 times more algal biomass than traditional shallow pond systems. A 500-acre bio-farm contains 250,000 tanks where algae grow through photosynthesis, digesting CO₂ emissions while producing feedstocks for animal feed, fish feed, food supplements, cosmetics, and sustainable aviation fuel.

Market Validation

Five of the world's top 10 oil and gas companies, including BP, Chevron, and Shell, conducted two years of due diligence on the technology before between them placing \$16 billion in offtake contracts for crude algal oil feedstock. The technology has received full US EPA approval for immediate production and holds EU International Sustainability & Carbon Certification (ISCC).



International Energy Agency (IEA) IEA The Cost of Capital in Clean Energy Transitions - Analysis - IEA

These exceptional financial metrics enable INNOVO to offer bio-farm construction at zero capital cost to heavy emitters, financing projects entirely from the revenue generated by converting CO₂ into profitable products. INNOVO generates approximately \$200 profit per ton of CO₂ emissions digested, with individual bio-farm projects requiring approximately \$400 million in capital expenditure.

Cost Comparison for Data Center Power

Energy Costs (per MWh):

- Bio-farm + Gas: \$43-109/MWh (usual combined gas cycle power generation without carbon capture)
- Solar + Storage: \$55-140/MWh (without tax credits)
- Nuclear SMR (first-of-a-kind actual): \$140-180/MWh
- Traditional Nuclear: \$141-220/MWh

Bio-farm with combined gas cycle power generation is 22% cheaper than solar and 39% cheaper than nuclear alternatives, while providing the reliability and dispatchability that data centers require.

Data Center Market Opportunity

The US data center sector faces explosive growth and critical energy challenges:

Demand Growth:

- US data centers consumed 183 terawatt-hours in 2024
- Projected to reach 426-606 TWh by 2030 (133-230% increase)
- Data centers already consume 6% of US national electricity

- AI-driven hyperscale facilities require 80-150 kW per rack

Supply Constraints:

- Natural gas will supply 60% of new data center power through 2030
- Renewable additions (110 TWh) cannot meet demand growth alone
- Grid connection bottlenecks affect 20% of planned projects
- Transformer and cable waiting times have doubled in three years
- Over 90% of power projects awaiting grid connection are renewables

Corporate Commitments: Major tech companies have aggressive sustainability targets:

- Google: 24/7 carbon-free energy by 2030
- Microsoft: Carbon negative by 2030
- Amazon: 100% renewable energy by 2025
- Meta: Net-zero emissions by 2030

These commitments create urgent demand for renewable solutions that can deliver reliable, dispatchable power without grid connection delays.

Competitive Advantages

Grid Independence: On-site generation with backup capacity sidesteps grid connection delays that are blocking renewable projects. This is critical when nearly 20% of planned data centers face delays due to infrastructure bottlenecks.

Dispatchable Power: Unlike intermittent solar and wind, bio-farm systems provide on-demand power generation that matches data center requirements for 24/7 reliability.

Domestic Manufacturing: 95% of bio-farm equipment can be manufactured in the USA, avoiding tariff impacts that adversely affect solar panels and batteries.

Speed to Deployment: With 2.6-year payback and immediate EPA approval, bio-farms can be deployed far faster than nuclear SMRs, which won't achieve widespread adoption until the mid-2030s.

Geographic Flexibility: Bio-farms require subtropical sunshine levels and access to seawater or saline aquifers within 50 miles. Suitable regions include Texas, Queensland (Australia), and similar climates globally.

Current Deployment Plans

INNOVO is establishing 24 large-scale bio-farms in Texas and Queensland, Australia, with 12 sites specifically designated for gas-powered data centers. Six potential sites have been identified in Texas, positioned to serve the region's growing data center market while leveraging the state's extensive saline aquifer network for seawater access.

Business Model

The nil-capex model fundamentally changes the economics of carbon reduction. By financing, building, and operating bio-farms alongside emitters, INNOVO eliminates the capital barrier that typically prevents heavy emitters from adopting zero-emission solutions. The \$200 per ton profit margin on CO₂ conversion creates a sustainable business model where environmental goals align with exceptional financial returns, enabling rapid scaling without requiring customer capital investment.

INNOVO Net Zero: <https://innovo-net-zero.com/>

S&P Global - Data Center Power Demand: <https://www.spglobal.com/commodity-insights/en/news-research/latest-news/electric-power/101425-data-center-grid-power-demand-to-rise-22-in-2025-nearly-triple-by-2030>

Pew Research - US Data Center Energy Use: <https://www.pewresearch.org/short-reads/2025/10/24/what-we-know-about-energy-use-at-us-data-centers-amid-the-ai-boom/>

Natural Gas Intel - Natural Gas Leading Data Center Power: <https://naturalgasintel.com/news/us-natural-gas-leads-in-powering-data-centers-as-renewables-nukes-picking-up-pace/>

Lazard LCOE Analysis: <https://www.lazard.com/media/eijnqja3/lazards-lcoeplus-june-2025.pdf>

Stranded Asset Risk Mitigation

According to MIT³ and Carbon Tracker⁴:

- Up to **\$30.6 trillion** in fossil fuel assets could be stranded by 2050 under net-zero scenarios.⁴
- Oil companies are in “**harvest mode**,” avoiding long-term investments due to fear of stranding.⁵
- The Smoke2Value bio-farm model **extends the economic life** of oil & gas assets by neutralizing their emissions, potentially **reversing or delaying stranding**.⁶

Key Drivers of Asset Stranding

1. **Climate Policy:** Regulations like carbon pricing, emissions caps, and bans on fossil fuel extraction.
2. **Market Shifts:** Declining demand for oil and gas due to competition from renewables.
3. **Social Pressure:** Divestment campaigns and changing consumer preferences for sustainable goods.
4. **Legal Risks:** Litigation against high-emission companies.

Financial Implications

- **Avoided Capex:** INNOVO Smoke2Value bio-farms digest CO₂ at **no cost to emitters**, can ultimately save oil & gas companies and their heavy CO₂ emitting clients **\$ trillions in decarbonization infrastructure**.
- **Increased sales revenues:** **Enhanced long-term retention of industrial clients** who would not need to switch to non-emitting energy alternatives.
- **Increased sales of sustainable aviation fuel (SAF):** Oil & gas companies can take bio-farm feedstock to generate substantial volumes of SAF, which is in short supply, improving balance sheets and enabling compliance with global carbon markets.

Strategic Repositioning of Oil & Gas Majors

INNOVO’s Smoke2Value bio-farms offer a **profitable, scalable, and zero-capex solution** for oil and gas companies to:

- **Halt their declining global market share.**
- **Achieve net-zero emissions** without divesting from core oil & gas operations.
- **Avoid stranded asset write-downs** by enabling continued use of high-carbon assets.
- **Comply with tightening climate regulations** and carbon pricing schemes.

Seizing Market Share in Oil, Gas and SAF Markets

The **first oil & gas major to deploy INNOVO’s Smoke2Value bio-farms** can use the technology to **seize market share**.

1. Position as the First Net-Zero Oil & Gas Major

- **Nil Capex Advantage:** INNOVO finances, builds, and operates the bio-farms, so the oil & gas major achieves **net zero without capital expenditure**. This is a competitive advantage over competitors still investing billions in decarbonization infrastructure.
- **Marketing Leverage:** Being the first mover allows the company to **rebrand as a climate-positive energy provider**, appealing to ESG-focused investors and customers. Studies show first movers in sustainability often gain **brand equity and pricing power**. [[Ai INNOVO...5-11-26 MK | Word](#)], [docs.earthster.org]

2. Capture Industrial Clients Under Decarbonization Pressure

- Heavy industries (steel, cement, power) face **trillions in decarbonization costs** over 30 years. Offering **zero-emission oil & gas energy** at nil capex makes these clients less likely to switch to renewables.
- This creates **long-term retention** and potential **premium pricing** for oil & gas products bundled with net-zero guarantees. [[Ai INNOVO...5-11-26 MK | Word](#)]

⁴ [MIT – Stranded Assets Study](#)

⁵ [Carbon Tracker – Stranded Strategies](#)

⁶ [CU Boulder – The Green Paradox\[5\]](#)

3. Exploit the Sustainable Aviation Fuel (SAF) Market

- INNOVO bio-farms produce **crude algal oil**, a feedstock for SAF. Global SAF demand is projected to surge due to **aviation decarbonization mandates** (e.g., EU Fit for 55, ICAO CORSIA).
- By integrating SAF production, the oil & gas major can **diversify revenue streams** and **command a premium in aviation fuel markets**, which are currently supply-constrained. [\[Ai INNOVO...5-11-26 MK | Word\]](#), [\[decerna.co.uk\]](#)

4. Regulatory Compliance as a Competitive Edge

- Global carbon pricing and emissions caps are tightening. A first mover can **avoid penalties, sell carbon credits**, and **meet compliance ahead of rivals**, creating a regulatory moat. [\[Ai INNOVO...5-11-26 MK | Word\]](#)

Commanding a Price Premium

Oil & gas bundled with INNOVO's **nil-capex bio-farms that digest CO₂ emissions from combustion** would very likely command a **price premium** over conventional commodity oil & gas. Here's why and how much, based on the document and external market data:

Why a Price Premium Is Likely

1. **Net-Zero Guarantee**
 - Buyers (especially heavy industry and aviation) face **trillions in decarbonization costs** and regulatory pressure. Offering oil & gas that is **emission-neutral at the point of use** eliminates their need for separate carbon mitigation investments.
 - This creates a **strong willingness to pay** for bundled energy + carbon-neutrality.
2. **Compliance and ESG Value**
 - Carbon pricing and emissions caps are tightening globally. Net-zero oil & gas helps clients **avoid penalties** and **meet ESG targets**, which is increasingly linked to financing costs and procurement decisions.
3. **Scarcity of Alternatives**
 - Few scalable solutions exist for hard-to-abate sectors. A guaranteed net-zero fossil fuel product is **unique and scarce**, enabling premium positioning.
4. **Brand and Market Differentiation**
 - First movers can market "**nil emissions oil & gas**", appealing to ESG investors and sustainability-driven customers, creating pricing power.

How Much of a Price Premium?

- **Carbon Cost Benchmark:**
EU ETS carbon price is currently around **€80–100 per ton CO₂**. Combustion of 1 barrel of oil emits ~0.43 tons CO₂.
→ Avoided carbon cost per barrel ≈ **\$35–45**.
- **Premium Range:**
If the oil & gas major bundles net-zero guarantee, the **price premium could range from \$30–50 per barrel**, depending on:
 - Regional carbon pricing
 - Client ESG compliance urgency
 - SAF integration (adds further value)
- **Market Evidence:**
Sustainable Aviation Fuel (SAF) already commands **2–4× the price of conventional jet fuel** due to scarcity and compliance mandates. This suggests **carbon-neutral oil & gas could achieve 10–20% premium** over commodity benchmarks in industrial and transport sectors. [\[Ai INNOVO...5-11-26 MK | Word\]](#), [\[decerna.co.uk\]](#)

Strategic Implication

- For a major producing 2 million barrels/day, even a **\$30 premium** adds **\$60 million/day** or **\$22 billion/year** in incremental revenue.
- Combined with SAF feedstock sales, this could **offset market share decline** and **boost valuation multiples**.

First Mover Impact on Share Price

5. First-Mover Impact on Share Price

- Sustainability leadership often correlates with **higher valuation multiples** and **lower cost of capital**. Analysts note that companies demonstrating credible net-zero pathways outperform peers in equity markets. [\[docs.earthster.org\]](https://docs.earthster.org)

6. Mitigate Stranded Asset Risk

- Up to **\$30.6 trillion in fossil fuel assets** could be stranded by 2050 under net-zero scenarios. Deploying Smoke2Value bio-farms **extends the economic life of existing assets** by neutralizing emissions, reducing write-down risk and improving investor confidence. [\[Ai INNOVO...5-11-26 MK | Word\]](#)

External Sources for Context

- IEA: Net Zero by 2050 – Oil & Gas Industry Implications [\[docs.earthster.org\]](https://docs.earthster.org)
- ICAO: Sustainable Aviation Fuel Policies [\[decerna.co.uk\]](https://decerna.co.uk)
- Carbon Tracker: Stranded Asset Risk [\[docs.earthster.org\]](https://docs.earthster.org)

Based on the factors and market evidence, here's how **first-mover factors—seizing market share and commanding a price premium—would likely affect the share price** of the first oil & gas major deploying INNOVO's nil-capex bio-farms:

1. Valuation Drivers

- **Revenue Uplift from Price Premium**
 - If bundled net-zero oil & gas commands a **\$30–50 per barrel premium**, a major producing 2 million barrels/day could add **\$22–36 billion annually** in incremental revenue.
 - SAF feedstock sales further diversify income streams in a high-growth market.
- **Market Share Stabilization & Growth**
 - Halting the decline from ~60% to ~50% global energy share (2020–2024) protects **\$700–900 billion in industry revenue**. First movers can **capture clients under decarbonization pressure**, locking in long-term contracts.
- **Risk Reduction**
 - Mitigating **\$30.6 trillion stranded asset risk** improves investor confidence and reduces discount rates applied to fossil fuel assets.

2. Share Price Impact

- **Multiple Expansion**
 - ESG leadership and credible net-zero pathways often lead to **higher valuation multiples**. Research by the IEA and Carbon Tracker shows sustainability leaders trade at **10–20% higher EV/EBITDA multiples** than laggards in carbon-intensive sectors.
- **Cost of Capital Reduction**
 - Lower perceived transition risk reduces WACC, boosting discounted cash flow valuations.
- **Analyst Re-Rating**
 - First movers typically receive **positive analyst coverage**, driving institutional inflows.

Indicative Impact

- If the company's current market cap is \$150 billion and it adds \$25 billion in EBITDA from premium pricing and SAF, plus a **10% multiple uplift**, the share price could rise **20–30% within 12–24 months**, assuming stable oil prices and execution credibility.

Why This Matters

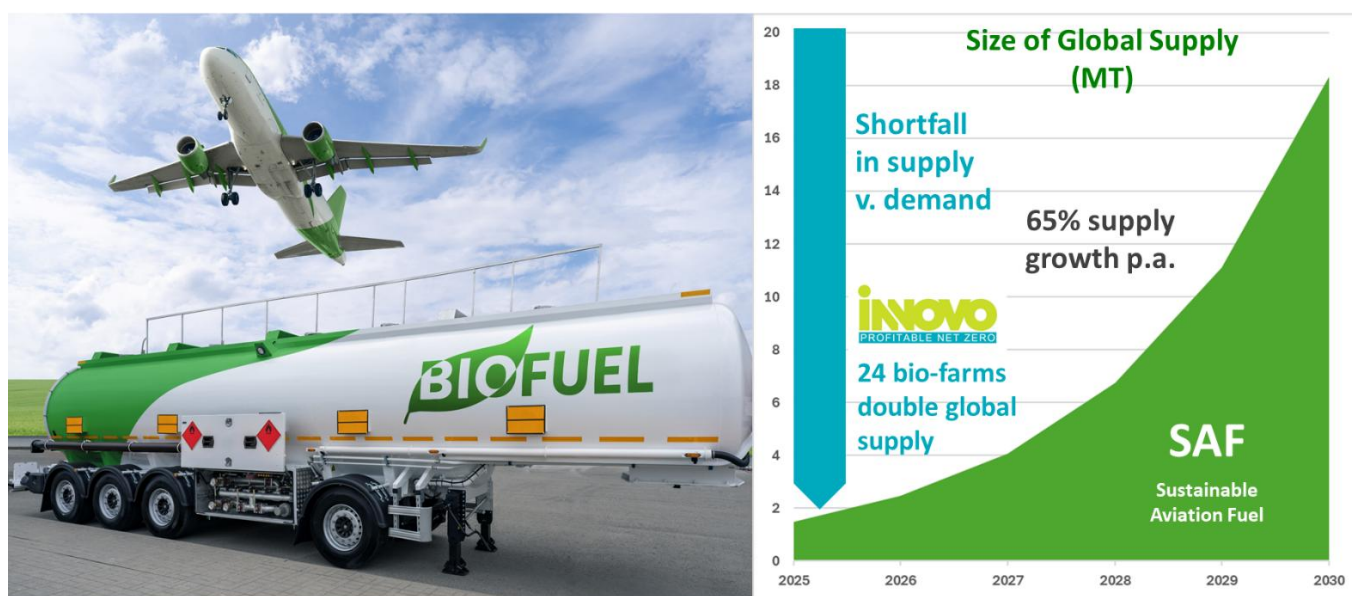
- Investors increasingly price **transition risk and opportunity**. A first mover offering **nil emissions oil & gas at nil capex** flips the narrative from decline to growth, attracting ESG funds and mainstream capital.

External Sources

- IEA: Net Zero by 2050 – Oil & Gas Industry Implications [The Oil and Gas Industry in Net Zero Transitions – Analysis - IEA](#)
- Carbon Tracker: Stranded Asset Risk [Stranded Assets - Carbon Tracker Initiative](#)

Sustainable Aviation Fuel (SAF) Market Opportunity

The world can only produce 2% of the global demand for SAF, according to McKinsey⁷.



In order to comply with global aviation regulations, **the world needs hundreds of millions of tons of SAF**. At present, **the global supply of SAF is only 1.5 million tons p.a., less than 2% of demand**.

Even though supply is growing by 65% annually, there is still a very large shortfall in the level of supply needed to meet demand.

Bio-farms and Crude Algal Oil for Refining into Sustainable Aviation Fuel

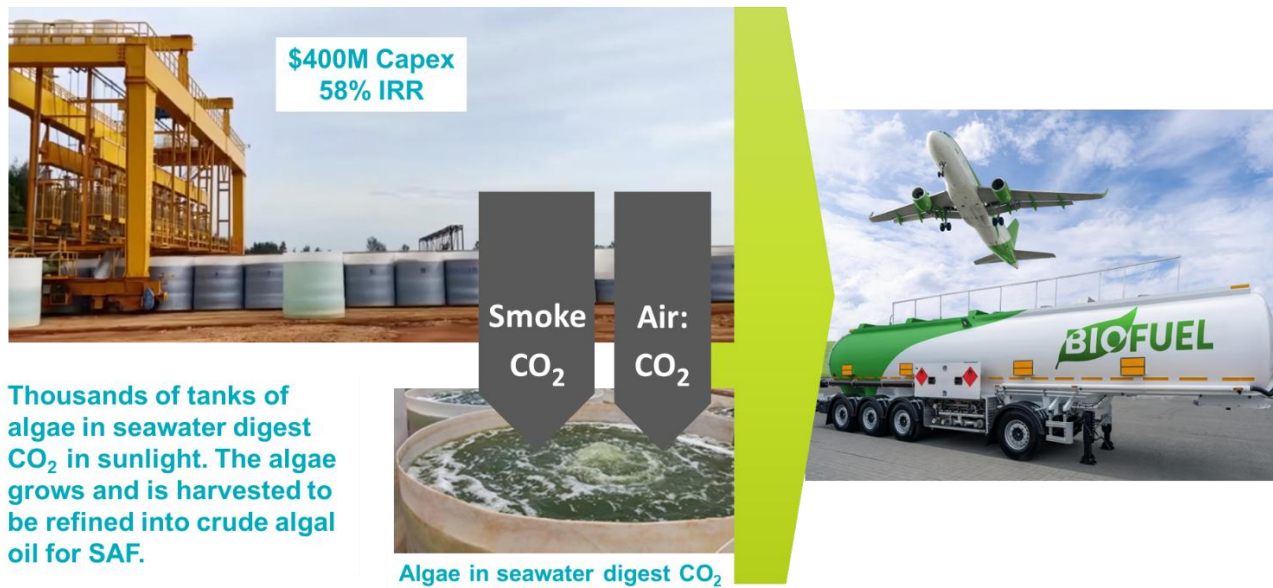
A revolutionary clean technology has now been proven at an industrial scale. It profitably digests emissions from oil & gas and is 7 times more profitable than solar. This proven technology can profitably convert millions of tons of CO₂ in smoke emissions into other valuable products, such as sustainable aviation fuel feedstock, animal feed, fish feed, food supplements like Omega-3 oil, cosmetics, and nutraceuticals.

Half of global CO₂ emissions are digested by algae in the oceans in sunlight through photosynthesis, just like trees. Hundreds of small companies profitably grow algae on land in shallow ponds with paddles.

INNOVO has partnered with a technology company that has developed patented bio-farms comprising thousands of deep 2.4m x 2.4m tanks with gantry harvesters. A bio-farm has thousands of tanks filled with algae in seawater. CO₂ in industrial smoke emissions is bubbled through the tanks as well as air with its CO₂.

⁷ [Securing a sustainable fuel supply: Airline strategies | McKinsey](#)

The algae grow rapidly in sunlight with photosynthesis. The algal biomass is harvested and profitably refined into crude algal oil, which is used to make sustainable aviation fuel.



INNOVO is **setting up 24 very large bio-farms in Texas and Australia**. Together, at full capacity, they will produce crude algal oil sufficient to **yield 1.5 million tons of sustainable aviation fuel**. This will **double the current global production of sustainable aviation fuel**. [Sustainable Aviation Fuel](#)

A bio-farm produces \$63M of SAF feedstock in its first year of production rising to \$151M annually by year 5.

Importance to Oil & Gas Majors

Global Regulatory Pressure

These are the global regulatory pressures driving SAF demand:

1. European Union – ReFuelEU Aviation

- **Mandate:**
 - **2% SAF blend by 2025**, rising to **70% by 2050**.
 - Sub-target for synthetic fuels: **1.2% by 2030, 35% by 2050**.

2. United States – SAF Grand Challenge

- **Targets:**
 - **3 billion gallons/year by 2030** (~10% of U.S. jet fuel demand).
 - **35 billion gallons/year by 2050** (100% of demand).
- Requires **≥50% lifecycle GHG reduction** vs conventional jet fuel.
- Under the Trump administration, the SAF Grand Challenge remains in place, but funding from the Inflation Reduction Act (IRA) was paused early in 2025 and later partially reinstated by court order. This reduction in funding via tax credits does not affect INNOVO because of its high profitability. Indeed, it makes SAF from INNOVO bio-farms more competitive than rival sources, which depend on significant levels of tax credits.

3. ICAO – CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation)

- **Global Framework:**
 - Net-zero aviation by 2050 (Long-Term Aspirational Goal).
 - Airlines can use SAF to reduce offsetting obligations.
- Mandatory phase starts **2027**, covering nearly all international flights. [\[icao.int\]](https://www.icao.int/), [\[4air.aero\]](https://www.4air.aero/)

4. United Kingdom – SAF Mandate

- **Compulsory SAF blending** with incremental targets and buy-out penalties.
- Jet Zero Taskforce drives SAF adoption as part of UK's net-zero aviation strategy. [\[natlawreview.com\]](https://www.natlawreview.com)

5. Asia-Pacific SAF Mandates

- **Japan:** 10% SAF by 2030.
- **Singapore:** 1% by 2026, 3–5% by 2030.
- **India:** 1% by 2027, 5% by 2030.
- **South Korea:** 1% by 2027.

China: 50,000-ton SAF production target by 2025.

Regional SAF capacity projected to exceed **2–3M tons/year by 2028**. [\[iscc-system.org\]](https://www.iscc-system.org), [\[sustainablebusiness.com\]](https://www.sustainablebusiness.com)

Proven Demand

INNOVO's technology partner allowed **5 of the world's top 10 oil & gas majors, including BP, Chevron, and Shell, to each perform 2 years of full due diligence** on its industrial-scale plant in Malaysia. Between them, they then placed **\$16 billion of multi-year offtake contracts** in a competitive auction. The technology partner is trying to finance and build the 10 bio-farms to **meet this contractual demand of just two oil & gas majors**.

The technology partner therefore, **turned to INNOVO to finance, build, and operate many more bio-farms** to meet global demand from **other oil & gas majors, including BP, Chevron, and Shell**. This demand is **much higher than the 24 bio-farms planned for 2026**.

Strategic Fit

The **SAF market is one of the fastest-growing oil & gas markets**, and securing INNOVO's production could enable an **oil & gas major to build up a dominant market position**. INNOVO SAF is a **drop-in fuel compatible with existing infrastructure**, ideal for oil majors transitioning to low-carbon solutions.

Value Proposition for Oil & Gas Companies

- **Profitably achieve net-zero emissions at nil capex:** INNOVO finances, builds, and operates bio-farms without cost to the emitter, enabling oil & gas majors to meet decarbonization goals without upfront investment. [Net Zero Nil Capex](#)
- **Access to the fastest-growing market:** SAF (Sustainable Aviation Fuel) is mandated globally, creating a multi-billion-dollar opportunity for oil & gas companies to secure a dominant position.
- **Regulatory compliance and risk mitigation:** Meeting stringent SAF blending mandates (EU, US, UK, ICAO, Asia-Pacific) avoids penalties and offsets obligations.
- **Strategic advantage:** SAF is a drop-in fuel compatible with existing infrastructure, supporting a smooth transition to low-carbon solutions.
- **Positive impact on downstream clients:** Heavy industries, power generation and data centers benefit from reduced decarbonization costs, strengthening oil & gas client relationships. [Seismic Impact of Net Zero Nil Capex for Oil Gas v2025-10-17.pdf](#)
- **Revenue growth:** Each bio-farm generates \$63M in SAF feedstock in year one, rising to \$151M annually by year five.

Unique Selling Points (USPs)

1. **Proven technology at industrial scale:** Validated by 5 of the world's top 10 oil & gas majors through two years of due diligence and \$16B of offtake contracts already.

2. INNOVO's technology **converts oil & gas to a nil emissions source of energy for data centers and heavy industries**. This net zero, nil capex conversion is set to have a “seismic impact” on the oil & gas industry.
3. **High profitability vs alternatives**: 7× more profitable than solar, 11x more profitable than wind and nuclear; competitive and highly profitable even without tax credits.
4. **Rapid scalability**: INNOVO is deploying 24 large bio-farms in Texas and Australia, doubling global SAF production. Greater numbers are planned for 2027.
5. **Integrated carbon capture**: Bio-farms digest CO₂ from emissions and directly from air, offsetting hard-to-capture emissions.
6. **Diversified revenue streams**: Beyond SAF, outputs include animal feed, Omega-3 oils, cosmetics, and nutraceuticals.
7. **Alignment with global mandates**: Supports compliance with ReFuelEU, SAF Grand Challenge, CORSIA, UK Jet Zero, and Asia-Pacific SAF targets.
8. **Zero capex for oil & gas majors**: INNOVO funds and operates projects, removing financial barriers to adoption from the heavy-emitting customers of oil & gas majors.

Support Materials

Web pages and videos:

INNOVO SAF: [Sustainable Aviation Fuel](#)

Press Release: [INNOVO to Double Global Sustainable Aviation Fuel Supply - Press Release](#)

INNOVO Smoke2Value Bio-farms: [Smoke2Value](#)

Net Zero, Nil Capex: [Net Zero Nil Capex](#)

Net Zero Data Centers: [Net Zero Data Centers](#)

“Seismic” Impact of INNOVO Net Zero, Nil Capex for Oil & Gas:
[Seismic Impact of Net Zero Nil Capex for Oil & Gas](#)

INNOVO Investors: [Investors](#)

INNOVO has a **large, professional investment team with Investment Data Rooms** prepared to the highest investment banking standards. We also have an **Ultimate Security Data Vault** where **KPMG or PwC can validate the \$16 billion offtake contracts**.

INNOVO Newsroom: [Newsroom](#)

Global Regulatory Pressures Driving SAF Growth

These are the **global regulatory pressures driving SAF (Sustainable Aviation Fuel) demand**:

1. European Union – ReFuelEU Aviation

- **Mandate:**
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 - Sub-target for synthetic fuels: **1.2% by 2030, 35% by 2050**.
- Applies to **all flights departing EU airports**; penalties for non-compliance exceed SAF price differential.
- Part of the **Fit for 55 package** to cut GHG emissions by 55% by 2030.
- Estimated SAF demand: **1.2M tons in 2025 → 43.4M tons by 2050**. [\[transport....europa.eu\]](#), [\[synhelion.com\]](#)

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3. ICAO – CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation)

- **Global Framework:**
 - Net-zero aviation by 2050 (Long-Term Aspirational Goal).
 - Airlines can use SAF to reduce offsetting obligations.
- SAF must meet **CORSIA sustainability criteria** (GHG reduction, land-use safeguards, social standards) and be certified under approved schemes (ISCC or RSB).
- Mandatory phase starts **2027**, covering nearly all international flights. [\[icao.int\]](https://www.icao.int/), [\[4air.aero\]](https://www.4air.aero/)

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6. Additional Drivers

- **EU ETS & Carbon Pricing:** 20M carbon allowances reserved to offset SAF price gap. [\[argusmedia.com\]](https://www.argusmedia.com/)
- **Airline Commitments:** Voluntary pledges (e.g., 10% SAF blend by 2030) amplify demand beyond mandates. [\[mckinsey.com\]](https://www.mckinsey.com/)

Contact: Book a call with us: [INNOVO Profitable Net Zero](https://www.innovoprofitable.net/)