

We produce



Petroleum



Electricity



Chemicals

from



Garbage

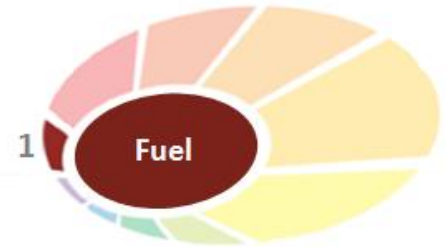


Wood Waste



Plastic

Fuel



 **CleanPetroleum™** is unique, because it's the same.™

 Identical to fossil fuel petroleum, just **cleaner**.



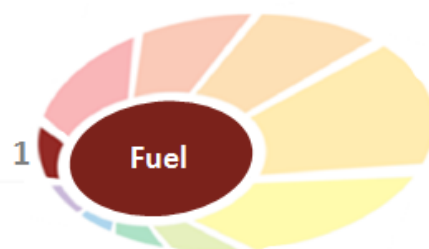
In sharp contrast to Ethanol & BioDiesel...

 **100% compatible** in all   


 Transportable via **existing infrastructure**  


 Delivered to consumers via **same retail** 

Fuel



Our **patented technology** is
competitive at **\$25**  **oil**
without government subsidies

Oil Break-Even Prices		
Nation/Group	Break-Even Price	Cost Per Gal
Oman	\$40	\$0.95
Bahrain	\$40	\$0.95
Canada's oil sands	\$33	\$0.79
Qatar	\$30	\$0.71
Saudi Arabia	\$30	\$0.71
 XFuels	\$25	\$0.60
U.A.E.	\$25	\$0.60
Kuwait	\$17	\$0.40

Gasoline could fall
to **75 CENTS**
at the 

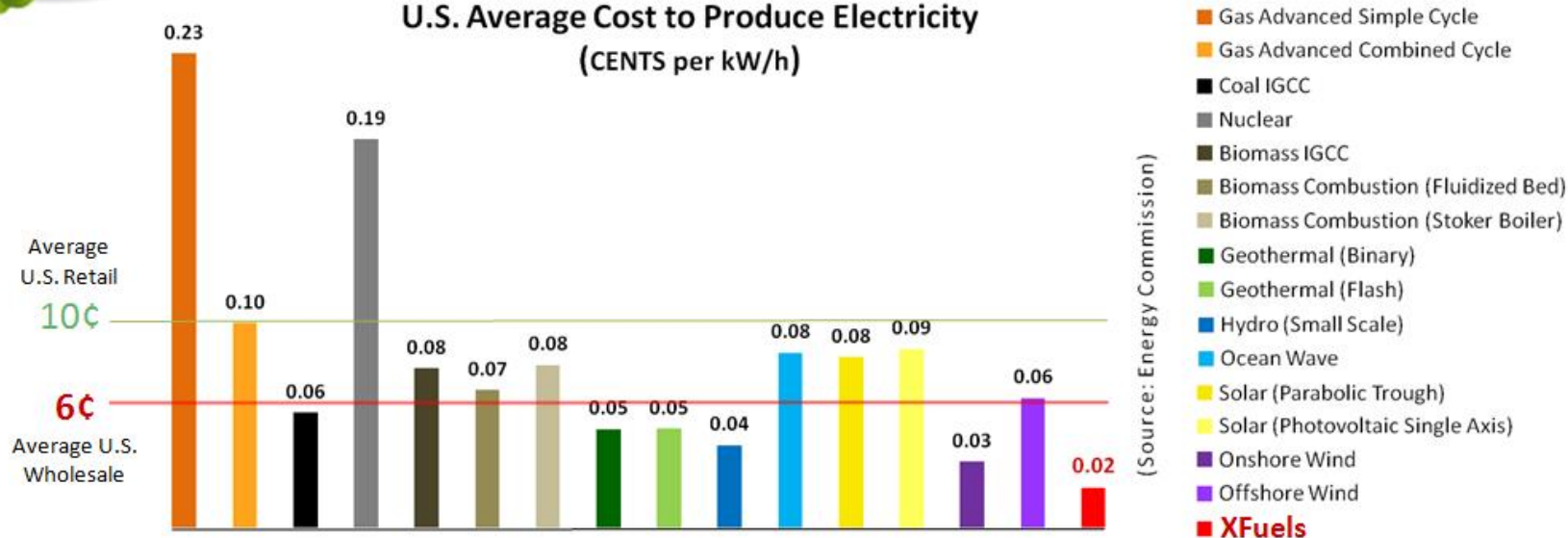
and we'd still
be profitable.

Byproducts

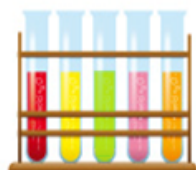


Electricity at **2 CENTS per kilowatt hour** (kW/h)

U.S. Average Cost to Produce Electricity
(CENTS per kW/h)



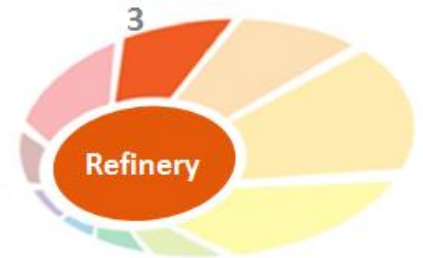
Byproducts



Broad range of high-value **industrial chemicals**

BioPetrol	BioPlastics	BioIndustry	BioConsumer	BioSciences
Lubricants	Acrylics	Adhesives	Health Care	Biochemistry
Additives	PVC	Printing	Pharmaceuticals	Biophysics
Catalysts	Polyethylene	Construction	Food Additives	Genomics
Propane (LPG)	Polypropylene	Electronics	Cosmetics	Biocomputing
Naphtha	Polystyrene	Agriculture	Cleaning Agents	Nanotechnology

Refinery



U.S. Gov.: **Next Generation Hydrocarbon Biorefinery**

- Equivalent to petroleum refineries
- Key Difference? Renewable and Clean.

Production



ZERO

Product



85% LESS



“**Biorefineries** have been identified as **the most promising route** to the creation of a new domestic bio-based industry.”

Leadership



Michael McLaren –CEO and Director

Michael McLaren has been in the high technology industry for more than 20 years his past experience includes a number of Military and government projects in high-energy physics, advanced robotics and weapon design. Mr. McLaren has been the developer and Patent holder of the Xfuel technologies since its inception and prior to that was with General Cybernetics since 1998 which was a division of World Wise Technologies Inc. Mr. McLaren has a Master's Degree in Science, Master's Degree in Business from University of British Columbia. Mr. McLaren wrote together with Prof. Dr. Trass several Publications on Selective Oil Agglomeration for Ecological benefits on Coal Water Oil Fuel (CWF) and the preparation of various fuels for the non-thermal Plasmatron reactor – gasifier using the Szego Mill (SGA) for the Clearwater Conference 2012.

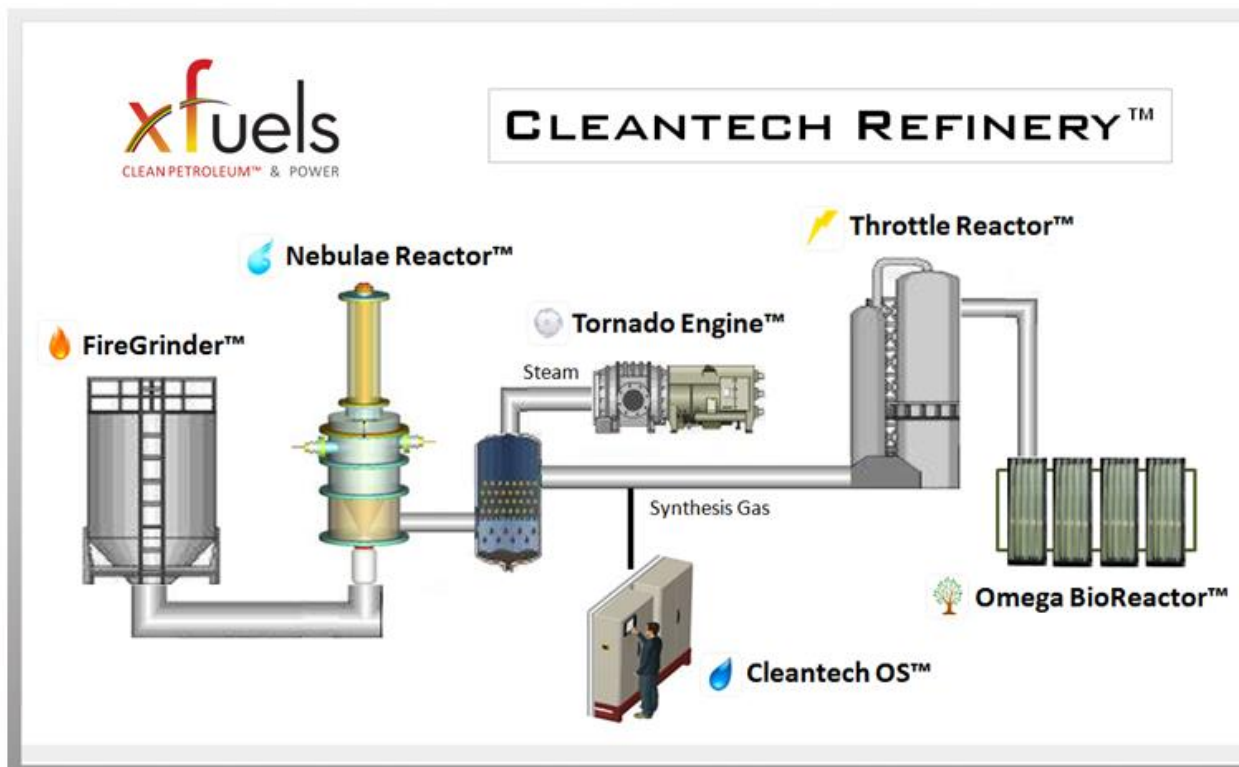


Isaac Benjamin Voss- President, and Chief Operating Officer

Since originally entering the clean technology industry in 2001, Isaac has helped lead investment into - and grow a number of winning companies, many of them in the clean energy sector. His time at the venture fund Cleantech Venture Capital, further expanded his sector-specific knowledge and experience. It was while with the fund that Isaac and the XFuels technology team first began working together, and he has since helped grow the original XFuels operation from an unknown small town America start-up, to a company now in demand on every continent. As President, he is responsible for the external matters of XFuels; building partnerships and broader business relationships, government outreach and brand & identity thought leadership, as well as advising the CEO and senior leadership on business, strategic, and policy issues.

From 2008 - 2015, Isaac served as Cleantech Venture Capital's EIR (Entrepreneur-in-Residence), leading the management of all matters related to seed fund start-ups, and overseeing portfolio company grooming, technical, and business strategy matters alongside company founders. His financial transaction experience includes: corporate and partnership formations, debt and equity structuring - including hybrid financing structures, joint venture agreements, business combinations (including asset acquisitions, stock purchases, stock for stock deals and statutory mergers). Under his leadership, and while working with the firm, XFuels has dramatically scaled its corporate and talent infrastructure, and increased market penetration around the globe.

Technology



-  **Molecular Disassociation**
-  **Electro-Chemical Reaction**
-  **Use 1MW power vs. 180MW**
-  **Can do "Crud" as well as "Crude"**

Technology



Competitors



Ethanol and Biodiesel

- Last generation
- Not compatible



Biorefineries

- Room for many
- Older and/or less efficient technologies



Existing Renewable Energy Technologies

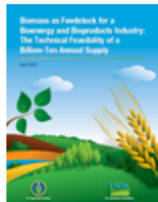
- No petroleum replacement
- More expensive to operate



Big Oil

- Hesitant to change (infrastructure)
- Mandated to buy green fuel

Niche



Biomass as Feedstock... A Billion-Ton Annual Study (2005)

- **1.4 Billion Annual Tons (BAT)**, fuels (**CleanPetroleum™**), power & chemicals
- U.S. Gov.: U.S. Biorefinery Opportunity is trillion \$ niche worth:

“3X total Persian Gulf oil imports”



Next Generation Hydrocarbon Biorefinery Roadmap (2008)

- Of the 1.4 BAT, less than **1/7TH** is being used
- U.S. Gov.: This unclaimed **1.2 BAT** is:

1.2 Billion Annual Tons



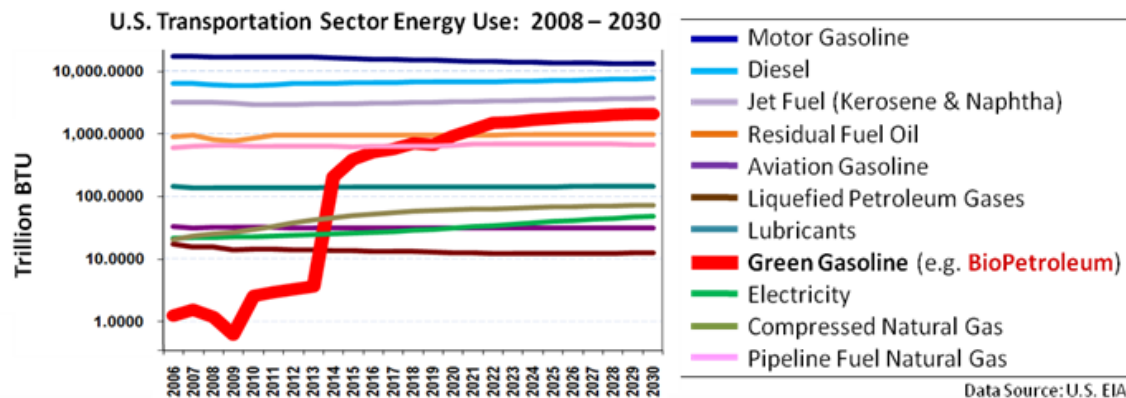
“Equivalent to HALF the oil consumed in the U.S.”

Niche



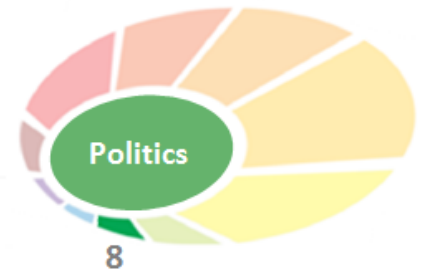
Biomass Multi-Year Program Plan (2009)

- Outlines U.S. Gov. commitment to ensure the Renewable Fuel Standard
“30% of all petroleum used in America will be replaced with renewable fuels such as BioPetroleum by 2022”



**Mandate =
1000-fold U.S.
BioPetroleum
growth in 10 Yrs**

Politics



U.S. Gov: Mandates, driven by “**National Security**”

CleanPetroleum™:

Create more fuel in U.S.A.
U.S. oil consumption is
25% global / **3%** reserves



Cleantech Refineries™:

Create more jobs in U.S.A.
Country of innovators &
producers, vs. consumers

XFuels: Create energy that is sustainable and clean
World is transitioning to new energy sources in 21ST Century

Summary



We produce



from



- |1| **CleanPetroleum™**: 100% petro infrastructure compatible
- |2| \$25/barrel oil, without subsidies
- |3| Electricity 2¢ ^{kW/h}, & Chemicals
- |4| **Cleantech Refinery™** with ZERO Stack Emissions
- |5| U.S. Gov: **Trillion \$ Niche** “3X Persian Gulf oil imports”