



“An Energy and Environmental Solutions Company”

Webinar: Status of Carbon to Liquid Product Technology

*Discussion Leader: Charles Gounaris, Jr.,
EVP of CoalStar Industries, Inc.*

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Charles Gounaris, Executive Vice President

Charles Gounaris is a high impact executive with key leadership roles at EDS, GPU, IBM, and NOVA Chemicals Inc.

He is President and Managing Director of Charles Gounaris & Associates, a national CEO Advisory Practice focused on driving Vision through Execution and improving results.

Gounaris is in partnership with Jim Alampi, one of the founders of the CEO Advantage Program and creator of the proprietary methodology, “The Execution Maximizer.”

Charles is also President and Managing Partner of CGroupAdvisors, a business advisory practice focused on new business development, operational excellence, the competitive use of information technology, complex project management, and interim executive services.

Charles has a successful cross-industry track record in international business driving organizational transformation and achieving top line revenue growth, margin expansion, increased profitability, and business performance improvement. He recently completed an assignment as general manager and director of a \$250 + Million global chemical business serving the building, construction and packaging industry/markets.

Gounaris is a graduate of The Pennsylvania State University with a Bachelor of Science Degree in Management, and a focus on strategic alignment/execution.

Agenda:

- The Problems / Our Solution
- Raw Material Market Dynamics
- Finished Product Considerations
- CoalStar's Green Vision



The Problems...Our Solution

Business/Economic Problem

- ✓ Dependency on Foreign Oil
- ✓ Offshore Transfer of Wealth
- ✓ Security of Oil/Energy Supply
(Raw Material and Finished Product)
- ✓ Volatility of Pricing (e.g. oil/diesel)
- ✓ Environmental Impact
of Refined Products
- ✓ Capital Investment (Existing Value Chain)

CoalStar Solution

- ✓ Made in America, Proven Coal to Oil Technology (CTL)
- ✓ Investment in U.S. Economy (GDP)
- ✓ Plentiful, Secure “target” coal reserves
- ✓ Price stability relative to volatile oil
- ✓ Lower carbon footprint relative to other CTL options
with “CoalStar Green” upgrade potential
- ✓ Product is refineable to carbon black oil, creosote oil,
diesel fuel & other derivatives using existing assets

CoalStar Vision

Leverage CoalStar's “Coal to Liquid Technology” to reduce dependence on foreign oil, lower domestic energy cost, reduce Green House Gas Emissions and provide investors with a long-term, recurring earnings stream.



Raw Material Market Dynamics

“Coal – America’s Energy Future”

- Historical Perspective on Oil
 - ✓ Growing U.S. dependence on Foreign Oil
 - ✓ Volatile Pricing Dynamics
 - ✓ Risky Supply Chain
 - ✓ Global Competition with China and India
- Availability of Coal Supply
 - ✓ 250 Year Supply in U.S.A.
 - ✓ Key Sources:
U.S., Russia, China, India, Australia
 - ✓ Pittsburgh Seam
- Five Year Market Dynamics
 - ✓ Oil vs. Coal price movement
 - ✓ Coal price independent of oil
- CoalStar Site Selection Implications
 - ✓ Access to Raw Materials & Refining Assets
 - ✓ Total Capital Requirements
 - ✓ Distribution Cost
 - ✓ Utilities
- Future Considerations
 - ✓ Powder River Basin vs. Pittsburgh Seam
 - ✓ International Expansion



Finished Product Considerations

- Historical Price/Market Volatility of Crude Oil vs. Downstream Derivatives
- “Synthetic Crude Oil” Pricing/Advantages
 - ✓ Estimated Unit Price of Synthetic Oil (CTL) below crude oil market price
 - ✓ Unit price less volatile relative to oil
- Benefits of CTL Technology (Reference: Coal-To-Liquids Technology, U.S. Dept of Energy)
 - ✓ Reduce growing dependence on imported crude oil
 - ✓ Has been demonstrated for more than 50 years
 - ✓ Can be upgraded to jet and diesel fuel for use in existing engines
 - ✓ Can be distributed using existing crude oil & product Infrastructure
 - ✓ Competitive alternative to oil
 - ✓ Meets ASTM standards
- Multiple Points of Revenue
 - ✓ Coal Crude Oil
 - ✓ Carbon Black and Creosote Oil
 - ✓ Diesel Fuel
 - ✓ Heating Oil
 - ✓ Co-Products
 - ✓ Licensing

CoalStar Coal Crude Oil - “Made in America”

Predictable, Stable, Competitive, Profitable

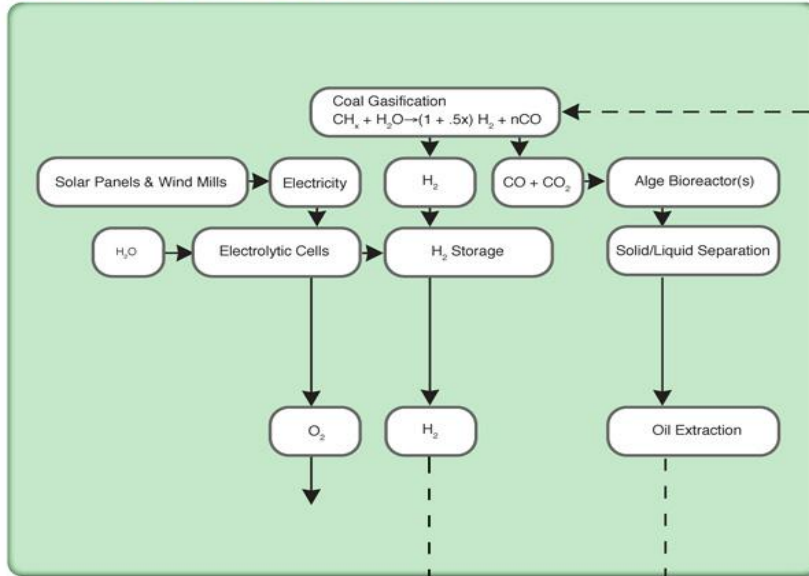


Finance / Implementation Strategy

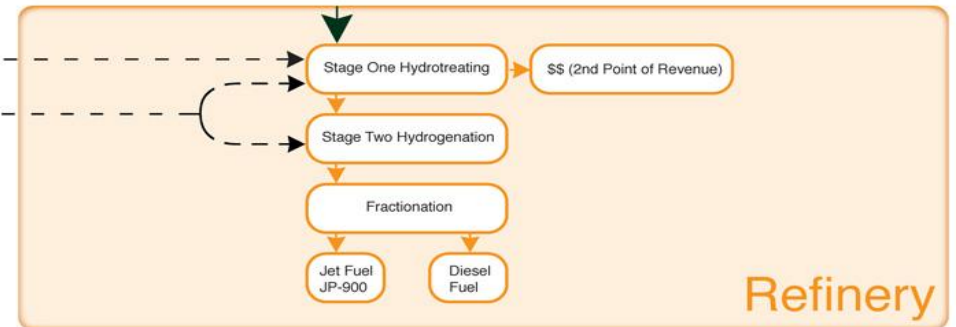
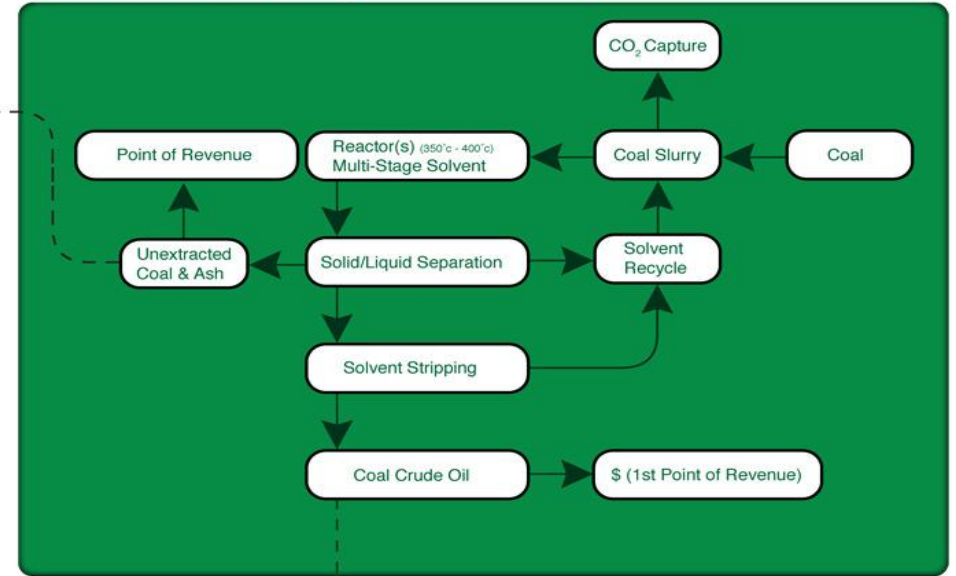
- Implementation Strategy
 - ✓ Phase 1: Bench Scale Laboratory
 - ✓ Phase 2: First Generation Plant
 - ✓ Phase 3: Project Funding - First Full Scale Commercial Plant
- Ownership
- Board Representation
- Preferred Customer/Supplier Status

CoalStar's Green Vision

CoalStar Tomorrow



CoalStar Today



O₂ = Oxygen
 H₂ = Hydrogen
 H₂S = Hydrogen Sulfide

CO = Carbon Monoxide
 CO₂ = Carbon Dioxide
 CH_x = HydroCarbon such as Methane

————— Current Process
 - - - - - Future Process

Refinery

Why CoalStar !

- ✓ **Built on years of research:** DOE & The Pennsylvania State University
(Reference: Summary Report of DOE Direct Liquefaction Process Development Campaign of the Late Twentieth Century: Topical Report, July 2001, DOE Contract DE-AC22-94PC93054)
- ✓ The engineering feasibility has been demonstrated
- ✓ High Impact, Experienced Leadership Team
- ✓ The CoalStar product is refineable in existing refineries to meet transportation fuel specifications
- ✓ Lower CAPEX, Operating Cost, and Carbon Footprint relative to existing CTL Technology (FT)
- ✓ Upside Potential: Yield, Product Quality, Product Portfolio, and Earnings
- ✓ Superior Investment Opportunity with “Tag-Along Rights”
- ✓ World Class Service Providers & Partners

